

lode-stone/lod-ston/n: 1: a rock or meteorite having the magnetic property of attraction. 2: something that strongly attracts.

Phone (800) 694-8089 • Fax (714) 970-0800

LODESTONE PACIFIC

Is the world leader in Toroid Mounts and Headers for the magnetics segment of the electronics industry. The company is structured to offer the highest quality product and service at the lowest total cost, and is committed to substantial inventories that ensure competitive advantage through quick shipments and tightly scheduled delivery. We manufacture in China, Thailand and the United States, and ship worldwide from our warehouses in Asia, Europe and the United States.

Visit our Web Page: www.lodestonepacific.com

ENGINEERING KITS

Engineering Kits offer a wide selection of plastic molded component headers and toroid mounts and are ideal for designing new applications. Each kit is \$40 and we will replenish missing or used parts free of charge, for ever. Just fax or e-mail your request.

Engineering Kit #6 for wound toroid or components up to .600 inches in diameter. Over 60 solutions.

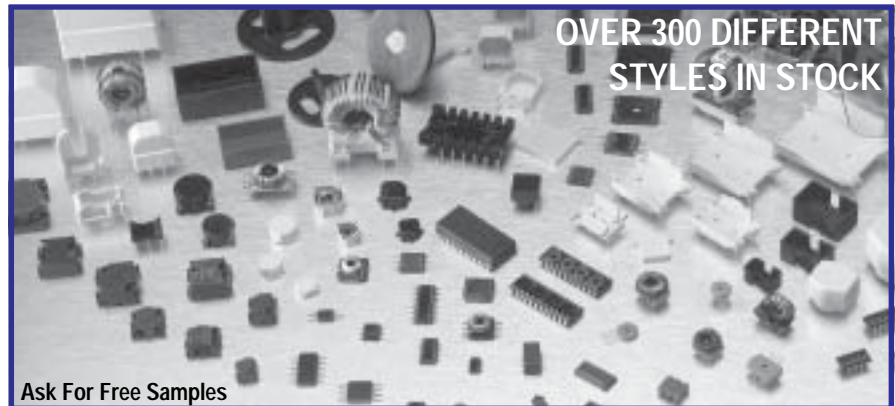
Engineering Kit #7 for wound toroids or component sizes .600 up to 3.0 inches in diameter. Over 60 solutions.

Engineering Kit #8 for surface mounting of wound toroids or components up to .880 inches in diameter.

PACKAGING SOLUTIONS

ANTI-STATIC TRAYS Since it is important to protect the terminals of wound components, trays are ideal for handling components during winding, or for delivering the finished component to PCB insertion. These trays are sold separately. For more information on trays, turn to page 46.

ANTI-STATIC TUBES Many Lodestone Pacific toroid mounts are shipped in anti-static tubes. The tubes protect the more fragile product leads from damage in shipment. The more robust toroid mounts are bulk packaged to reduce cost.



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MOLDING MATERIALS

The plastic moldings in this catalog divide into two basic performance types:

Thermoplastic: This family of materials is less expensive than thermosets, but more sensitive to elevated temperatures. The safe operation range for these materials is up to 400° F with tolerance to 500° F for short periods of time. They are widely used in wave, infrared, vapor phase and hand solder applications, but will require careful heat management.

Thermoset: These materials are more expensive to mold, but are very tolerant of all wave, infrared, vapor phase and hand solder temperatures. With the ability to withstand over 700° F, these materials are ideal for using a solder pot and self-stripping magnetic wire to form the component lead to mounting device termination.

| Type | THERMOPLASTIC | | | | | | | | THERMOSET | | | | |
|---|-----------------------|-----------|------------|-----------------|---------------|-----------|-------------|------------|-----------|-----------|-------------------------|---------------|-----------|
| Group | Polyamide (Nylon 6/6) | | | | Polyester | PPS | LCP | | | Epoxy | Diallyl Phthalate (DAP) | | Phenolic |
| Trade Name | RTP 205 FR | Vydyn 909 | Zytel FR50 | Technyl A20-V25 | Rynite FR-530 | Ryton R-4 | Zenite 7130 | RTP 3407-4 | E4920 | D72 | Rx 3-1-525F | DAP 5562 | PM 9630 |
| Manufacturer | RTP Co. | Monsanto | DuPont | Nytech | DuPont | Phillips | DuPont | RTP Co. | Cosmic | Cosmic | Rogers | Synres Almoco | Sumitomo |
| UL File No. | E84658(N) | E70062 | E41938(M) | E44716(M) | E69578(M) | E54700 | E123598(M) | E84568 | E64213 | E64213(S) | E123472M | E48036(M) | E41429(M) |
| UL Flammability ** | 94-VO | 94-VO | 94-VO | 94-VO | 94-VO | 94-VO | 94-VO | 94-VO | 94-VO | 94-VO | 94-VO | 94-VO | 94-VO |
| Max Temp (°F) * | 480 | 482 | 475 | 482 | 489 | 500 | 552 | 610 | >700 | >700 | >700 | >700 | >700 |
| Water Absorption % | .6 | .7 | .7 | .6 | .05 | .05 | --- | --- | .15 | .25 | .25 | --- | .15 |
| Co. Therm Expand m/m/°C (10 ⁻⁵) | 3.4 | 1.7 | 2.5 | 2.3 | 1.4 | 2.0 | 1.4 | -- | 3 | 1.8 | 1.7 | 4.5 | 1.5 |
| Dielectric Constant @ 1MHz (Dry) | 3.8 | 3.5 | 3.4 | 3.7 | 3.6 | 3.8 | 3.5 | 3.6 | 3.2 | 4.0 | 3.6 | 4.4 | 4.5 |
| Volume Resistivity ohm-cm (10 ¹⁵) | 1 | 3.8 | .1 | 1.0 | 1.0 | 4.5 | 1.0 | --- | 5.5 | .01 | .01 | 1.0 | --- |

* This is the estimated temperature where the integrity of the plastic body will be challenged by the heat transferred through the terminal to the plastic body.

** All plastic materials listed in this catalog are formulated to have an Underwriter's Laboratory flammability rating of UL 94-VO. This rating characterizes the ability of the plastic to self-extinguish under specific conditions when exposed to and then removed from an open flame.

***This table is reference only and is intended to highlight the differences between materials. Current material performance information should be obtained from the material manufacturer.

TERMINALS and SOLDERABILITY

The terminals used in this catalog meet MIL-STD-1276 with a plating thickness of 200 to 500 micro inches.

- Alloy 42: Iron-Nickel alloy plated with 90%Tin, 10% Lead over copper flash.
- Brass: Terminals plated with 100% Sn, or, 90%Sn/10%Pb, over nickel flash.
- Copper Wire: Half hard Copper wire plated with 100% Tin.
- Copper / Zinc: Copper/Zinc alloy plated with 60% Tin & 40% Lead.
- Phos. Bronze: Phosphorus Bronze plated with 90%Tin & 10% Lead.

All component and toroid mounts are inspected to MIL-STD-202, Method 208 for solderability, then handled and stored to avoid transferred or airborne contamination of the terminal as described in MIL-STD-2000.

WIRE TABLE

| Wire Gauge (AWG) | 12 | 14 | 16 | 18 | 20 | 22 | 24 | 26 | 28 | 30 | 32 | 34 | 36 | 38 | 40 |
|-------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Diameter (inches) | | | | | | | | | | | | | | | |
| Nominal (Single build) | .0827 | .0659 | .0524 | .0418 | .0334 | .0266 | .0213 | .0170 | .0137 | .0109 | .0088 | .0070 | .0056 | .0048 | .0035 |
| Nominal (Heavy Build) | .0838 | .0675 | .0539 | .0431 | .0346 | .0276 | .0223 | .0178 | .0144 | .0116 | .0095 | .0075 | .0060 | .0049 | .0038 |
| Cross Sectional Area | | | | | | | | | | | | | | | |
| Circular mills | 6530 | 4107 | 2583 | 1624 | 1022 | 642.4 | 404.0 | 254.1 | 159.8 | 100.5 | 63.2 | 39.8 | 25.0 | 17.7 | 9.89 |
| Amperes | | | | | | | | | | | | | | | |
| 1mA/circular mills | 6.54 | 4.11 | 2.59 | 1.62 | 1.03 | 0.640 | 0.400 | 0.255 | 0.160 | 0.100 | 0.064 | 0.040 | 0.025 | 0.016 | 0.010 |
| Resistance (ohms/1K ft. 20°C) | | | | | | | | | | | | | | | |
| Nominal | 1.589 | 2.524 | 4.019 | 6.388 | 10.13 | 16.20 | 25.67 | 41.02 | 65.33 | 103.7 | 162.0 | 261.3 | 414.8 | 648.2 | 1079 |

PLASTIC CERTIFICATION and TRACEABILITY

All of the plastic materials used in Lodestone Pacific toroid mounts and headers are UL Approved and traceable to the UL Recognized material manufacturer. Lodestone Pacific can provide certifications of materials based on the UL file No. for the materials as found on the materials "Yellow Card."

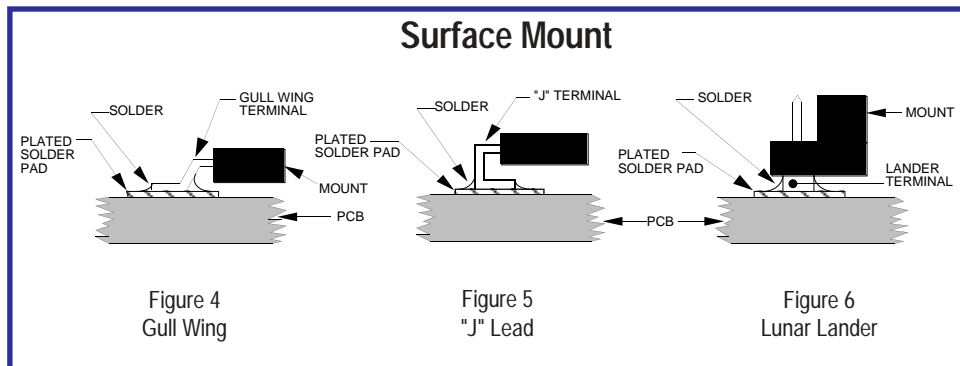
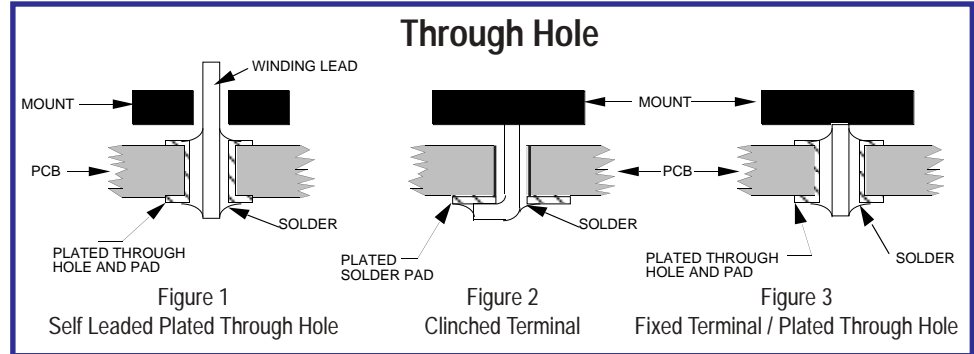
CUSTOM TOROID MOUNTS and HEADERS

If you need a part that you can't find in our catalog, fax us a drawing or sketch. If it is not part of our family of products, we often can tell you where to get it, or we can get it for you. If you have a custom requirement, Lodestone Pacific will help you in the design phase, then provide a tooling and a piece price quote for your specific application.

CONNECTION INTEGRITY

THROUGH HOLE: Magnetic devices are a relatively heavy component on a circuit board and therefore the mechanical characteristics of the solder connection are as important as its electrical integrity. Whether using a fixed terminal or the wound component's lead to self lead (Figure 1), the solder connection is critical. Printed circuit boards with unplated through holes may require a clinched terminal as described in MIL-STD-2000 (Figure 2). This will avoid stresses that contribute to an intermittent or failed connection. Printed circuit boards with plated holes offer good mechanical integrity without clinching, providing a successful intermetallic bond is created during the board solder process (Figures 1 & 3). Through hole diameter in relation to terminal diameter is also important to connection integrity. The recommended printed circuit board hole clearance should be no less than .006 inches but no more than .028 inches. This will facilitate the flow of solder to both ends of a plated through hole and allow the outgassing of contaminants that will interfere with a strong intermetallic bond.

SURFACE MOUNT: A toroid mount is essential to mounting a wound toroid to a circuit board using surface mount technology. The most widely used surface mount termination styles are either gull wing (Figure 4) or "J" lead (Figure 5). The gull wing style is widely used because it is relatively inexpensive to mold into the plastic body and to bend into position. The gull wings are somewhat flexible, which allows them to absorb the strain of thermal expansion and contraction. It is also easier to visually inspect the gull wing solder connection. The "J" lead also has wide acceptance because it uses up less board real estate than the gull wing and can absorb the strain of thermal expansion. However, the "J" lead to board solder connections are hidden from inspection and the leads are more difficult to form, making them more expensive. New surface mount techniques are being introduced to the industry constantly. One style is the "Lunar Lander" (Figure 6). The "Lunar Lander" incorporates a round lead style that is more rigidly supported by the plastic molding. This style is very robust and will tolerate handling and shipping with little or no effect on the co-planarity. It is not flexible with thermal expansion and is harder to visually inspect, but it uses little extra board real estate. Self leaded surface mount components have become popular. This technique uses the wound components leads, positioned by the toroid mount, to make the solder connection. For more information on toroid mount technology, visit our Web Site at www.lodestonepacific.com.



This style is very robust and will tolerate handling and shipping with little or no effect on the co-planarity. It is not flexible with thermal expansion and is harder to visually inspect, but it uses little extra board real estate. Self leaded surface mount components have become popular. This technique uses the wound components leads, positioned by the toroid mount, to make the solder connection. For more information on toroid mount technology, visit our Web Site at www.lodestonepacific.com.

TOROID MOUNT SELECTION

Use Our Web Page
Data Base Search Tool

With over 300 styles to choose from, which is the best toroid mount for your application? Go to our Web Site at www.lodestonepacific.com, click on Toroid Mounts and Headers, then select the "Toroid Mount Selector."

Answer the questions about your application, and the Selector will search our product database for the best products for your application. You can request samples and a quote, then download the drawing. It's easy, and for engineers, fun.

The Product Index on the facing page is also a useful tool. It lists Mounts and Headers by the Largest Practical Wound Diameter that will fit.

The screenshot shows the "Toroid Mount Selector" tool on the Lodestone Pacific website. The page header includes the company name and logo. A navigation bar contains buttons for "Quotations", "Samples & Literature", "Sales Team", "Technical Support", "Quality Control", and "Newsletter". The main content area is titled "Search our Product Data Base for the Best Match for your Application" and features a search form with the following fields:

- Toroid Wound Dia. in Inches: From Inches to Inches
- Orientation: Horizontal Vertical
- Terminal Style: Surface Mount Through Hole
- Terminals: No. of Terminals

 On the left side of the page, there is a vertical menu with the following items: "Service Sales Support", "Shielded Coil Forms", "Toroid Mounts & Headers", "Bobbins and Hardware", "Magnetic Core Materials", "Transformer Tape", and "Anti-static Parts Trays".

SURFACE MOUNT

Shape Code
STM = Surface Toroid Mount
SMD = Surface Mount Device
SMRF = Surface Mount for RF

STM 560 - 4

Approximate Size
(Hundredths of inches)
No. of Terminals

Sorted by the Maximum Wound Toroid Diameter to fit the Mount

| Part No. | Page | Max Dia. |
|---------------|------|-------------|
| STM106-6 | 2 | .106 [2.69] |
| STM152-6 | 2 | .150 [3.81] |
| SMRF150-06 | 2 | .150 [3.81] |
| SMD165-6 | 3 | .165 [4.19] |
| SMD165-8 | 3 | .165 [4.19] |
| SMD165-16 | 4 | .165 [4.19] |
| STM180-08/100 | 4 | .190 [4.83] |
| STM180-08/295 | 4 | .190 [4.83] |
| STM190-06 | 5 | .190 [4.83] |
| SMD193-16 | 5 | .193 [4.90] |
| STM198-06 | 5 | .200 [5.08] |
| SMD200-14 | 6 | .200 [5.08] |
| SMD200-20 | 6 | .200 [5.08] |
| STM205-02 | 6 | .205 [5.20] |
| STM240-6 | 7 | .240 [6.09] |
| STM255-4 | 7 | .255 [6.47] |
| SMRF258-4 | 8 | .258 [6.55] |
| SMRF258-6 | 8 | .258 [6.55] |
| STM260-4 | 8 | .260 [6.60] |
| STM261-12 | 9 | .260 [6.60] |
| STM270-06 | 10 | .260 [6.60] |
| SMD266-16 | 10 | .266 [6.74] |
| SMD266-24 | 10 | .266 [6.74] |
| STM20LC-02 | 18 | .270 [6.83] |
| STM302-2 | 18 | .270 [6.85] |
| STM302-2/A | 18 | .270 [6.85] |
| STM302-4 | 12 | .270 [6.85] |
| STM280-8 | 11 | .280 [7.11] |
| STM285-2 | 11 | .285 [7.24] |
| STM300-8 | 11 | .300 [7.62] |
| STM305-04 | 12 | .300 [7.62] |
| STM303-04/110 | 12 | .310 [7.87] |
| STM303-04/175 | 12 | .310 [7.87] |
| STM360-4 | 14 | .320 [8.13] |
| STM338-2 | 13 | .338 [8.60] |
| STM350-24 | 13 | .348 [8.83] |
| STM365-6 | 14 | .360 [9.14] |
| STM372-2 | 18 | .370 [9.39] |
| STM30LC-02 | 18 | .375 [9.52] |
| STM375-8 | 15 | .375 [9.52] |
| STM385-04 | 15 | .390 [9.90] |
| STM395-14 | 16 | .395 [10.0] |
| STM390-8 | 15 | .400 [10.1] |
| STM37CS-06 | 14 | .405 [10.3] |
| STM403-04/190 | 17 | .410 [10.4] |
| SMD430-24 | 17 | .430 [10.9] |
| STM40LC-04 | 16 | .440 [11.2] |
| STM460-4 | 21 | .445 [11.3] |
| STM502-2 | 18 | .445 [11.3] |
| STM40LC-02 | 16 | .450 [11.4] |

| | | |
|---------------|----|-------------|
| STM453-04/195 | 21 | .460 [11.7] |
| STM37LCC-04 | 19 | .485 [12.3] |
| STM44-4 | 17 | .485 [12.3] |
| STM37LC-02 | 18 | .490 [12.4] |
| STM37HC-02 | 20 | .500 [12.7] |
| STM44LC-02 | 18 | .530 [13.5] |
| STM44LCC-04 | 19 | .530 [13.5] |
| STM602-2 | 18 | .530 [13.5] |
| STM560-4 | 21 | .560 [14.2] |
| STM560-6 | 22 | .560 [14.2] |
| STM44HC-02 | 20 | .580 [14.7] |
| STM581-8 | 22 | .581 [14.7] |
| STM581-12 | 22 | .581 [14.7] |
| STM44HCC-04 | 20 | .600 [15.2] |
| STM50LCC-04 | 19 | .605 [15.4] |
| STM50LC-02 | 18 | .610 [15.5] |
| STM50HC-02 | 20 | .650 [16.5] |
| STM50HCC-04 | 20 | .680 [17.3] |
| STM68HC-02 | 20 | .840 [21.3] |
| STM68HCC-04 | 20 | .880 [22.3] |
| STM880-8 | 23 | .880 [22.3] |
| STM80HCC-04 | 23 | .890 [22.5] |

HORIZONTAL

Shape Code
DIP= Dual-in-Line Package
TM = Toroid Mount
TR = Toroid Retainer
HTC = Horizontal Toroid Cup
HTM = Horizontal Toroid Mount
TCM = Toroid Common Mode

TM 401 - 4

Approximate Size
(Hundredths of Inches)
No. of Terminals

Sorted by the Maximum Wound Toroid Diameter to fit the Mount

| Part No. | Page | Max Dia. |
|-----------|------|-------------|
| DIP165-6 | 24 | .165 [4.19] |
| DIP165-8 | 24 | .165 [4.19] |
| DIP165-16 | 24 | .165 [4.19] |
| TM252-4 | 25 | .197 [5.00] |
| TM200-4 | 25 | .200 [5.08] |
| TM305-06 | 26 | .305 [7.75] |
| TM401-3 | 27 | .320 [8.13] |
| TM401-4 | 27 | .320 [8.13] |
| TM401-5 | 27 | .320 [8.13] |
| TM401-6 | 27 | .320 [8.13] |
| TM402-6 | 27 | .320 [8.13] |
| TM380-5 | 26 | .340 [8.64] |
| TM400-8 | 26 | .400 [10.2] |
| TM507-4 | 30 | .400 [10.2] |
| DIP430-24 | 27 | .438 [11.1] |
| TM460-4 | 28 | .445 [11.3] |
| TM450-6 | 28 | .450 [11.4] |
| TM470-4 | 28 | .470 [12.0] |
| TM475-8 | 29 | .470 [12.0] |
| HTC490-0 | 29 | .490 [12.4] |
| HTC490-4 | 29 | .490 [12.4] |
| HTM460-6 | 31 | .500 [12.7] |
| HTM461-6 | 31 | .500 [12.7] |
| TM505-010 | 30 | .500 [12.7] |

| | | |
|-----------|----|-------------|
| TM501-4 | 29 | .538 [13.7] |
| TM501-6 | 29 | .538 [13.7] |
| TM550-8 | 30 | .550 [14.0] |
| HTC583-0 | 31 | .602 [15.3] |
| HTC583-4 | 31 | .602 [15.3] |
| HTC584-4 | 31 | .600 [15.2] |
| HTM600-6 | 31 | .750 [19.1] |
| HTM601-6 | 31 | .750 [19.1] |
| HTC764-0 | 31 | .819 [20.8] |
| HTC764-4 | 31 | .819 [20.8] |
| TR60-B | 33 | .900 [22.9] |
| HTC965-0 | 31 | .972 [24.7] |
| HTC965-4 | 31 | .972 [24.7] |
| HTM850-6 | 31 | 1.00 [25.4] |
| HTM851-6 | 31 | 1.00 [25.4] |
| TCM100-04 | 35 | 1.00 [25.4] |
| HTC1208-0 | 34 | 1.19 [30.2] |
| HTC1208-4 | 34 | 1.19 [30.2] |
| TCM120-04 | 35 | 1.20 [30.5] |
| TR80-B | 33 | 1.20 [30.5] |
| TR100-B | 33 | 1.50 [38.1] |
| HTC1500-0 | 34 | 1.53 [39.0] |
| HTC1500-4 | 34 | 1.53 [39.0] |
| TCM170-04 | 35 | 1.70 [43.2] |
| TR130-A | 33 | 1.90 [48.7] |
| TCM230-04 | 35 | 2.30 [58.7] |
| TR200-A | 33 | 3.00 [76.2] |
| TR275-C | 35 | 3.50 [88.9] |
| TR350-C | 35 | 4.50 [114] |
| TR450-C | 35 | 6.00 [152] |

VERTICAL MOUNTS

Shape Code
VTM - Vertical Toroid Mount
VTB - Vertical Toroid Boat
TS - Toroid Spacer
VTC - Vertical Toroid Cup
KM - Klip Mount

VTM 600 - 6

Approximate Size
(Hundredths of Inches)
No. of Terminals

Sorted by the Maximum Wound Toroid Diameter to fit the Mount

| Part No. | Page | Max Dia. |
|-----------|------|-------------|
| VTM225-4 | 36 | .225 [5.72] |
| VTM421-02 | 37 | .320 [8.13] |
| VTM421-03 | 37 | .320 [8.13] |
| VTM370-4 | 36 | .370 [9.39] |
| VTM455-4 | 37 | .455 [11.6] |
| KM44-01 | 42 | .480 [12.2] |
| KM44-02 | 42 | .480 [12.2] |
| VTC512-4 | 43 | .520 [13.2] |
| KM50-01 | 42 | .550 [14.0] |
| KM50-02 | 42 | .550 [14.0] |
| VTM555-4 | 37 | .555 [14.1] |
| VTM590-3 | 38 | .590 [15.0] |
| VTM620-2 | 38 | .590 [15.0] |
| VTM600-6 | 38 | .600 [15.2] |
| VTC613-0 | 43 | .630 [16.0] |
| VTC613-4 | 43 | .630 [16.0] |
| VTC613-6 | 43 | .630 [16.0] |

| | | |
|--------------|----|-------------|
| VTC613-8 | 43 | .630 [16.0] |
| VTM650-6 | 39 | .650 [16.5] |
| KM68-01 | 42 | .730 [18.5] |
| KM68-02 | 42 | .730 [18.5] |
| VTM800-08 | 39 | .785 [19.9] |
| VTC774-0 | 43 | .790 [20.0] |
| VTC774-4 | 43 | .790 [20.0] |
| VTM681-4 | 39 | .812 [20.2] |
| KM80-01 | 42 | .850 [21.6] |
| KM80-02 | 42 | .850 [21.6] |
| VTB700-04 | 45 | .850 [21.6] |
| VTB800-02 | 45 | .880 [22.4] |
| VTM880-10 | 40 | .880 [22.4] |
| VTC935-0 | 43 | .950 [24.1] |
| VTC935-4 | 43 | .950 [24.1] |
| VTM955-4 | 40 | .955 [24.3] |
| VTM1020-10 | 40 | 1.02 [25.9] |
| VTM1060-08 | 44 | 1.04 [26.4] |
| VTM1050-10 | 44 | 1.05 [26.7] |
| VTB900-02 | 45 | 1.05 [26.7] |
| VTB1090-04 | 45 | 1.10 [27.9] |
| VTB1100-03 | 45 | 1.10 [27.9] |
| VTM100-0 | 41 | 1.15 [29.2] |
| VTM100-4 | 41 | 1.15 [29.2] |
| KM106-01 | 42 | 1.15 [29.2] |
| KM106-02 | 42 | 1.15 [29.2] |
| VTC1156-0 | 43 | 1.18 [30.0] |
| VTC1156-4 | 43 | 1.18 [30.0] |
| VTM120-0 | 42 | 1.20 [30.5] |
| VTM120-0/035 | 42 | 1.20 [30.5] |
| VTM120-0/060 | 42 | 1.20 [30.5] |
| VTM120-0/067 | 42 | 1.20 [30.5] |
| VTM120-0/079 | 42 | 1.20 [30.5] |
| VTM120-0/RYN | 42 | 1.20 [30.5] |
| VTM120-4 | 42 | 1.20 [30.5] |
| VTM120-4/RYN | 42 | 1.20 [30.5] |
| VTM1220-10 | 40 | 1.22 [31.0] |
| VTC1227-0 | 43 | 1.30 [33.0] |
| VTC1227-4 | 43 | 1.30 [33.0] |
| VTM1300-14 | 44 | .130 [33.0] |
| VTB1200-012 | 45 | 1.40 [35.6] |
| VTB1350-04 | 45 | 1.50 [38.1] |
| VTC1468-0 | 43 | 1.55 [39.5] |
| VTC1468-4 | 43 | 1.55 [39.5] |
| VTM160-0 | 42 | 1.60 [40.6] |
| VTM160-0/067 | 42 | 1.60 [40.6] |
| VTM160-0/082 | 42 | 1.60 [40.6] |
| VTM160-0/089 | 42 | 1.60 [40.6] |
| VTM160-4 | 42 | 1.60 [40.6] |
| VTB1850-04 | 45 | 2.10 [53.3] |
| VTB2050-0X | 45 | 2.20 [55.9] |
| VTB2200-04 | 45 | 2.40 [61.0] |
| VTM254-0 | 42 | 2.54 [64.5] |
| VTM254-0/060 | 42 | 2.54 [64.5] |
| VTM254-0/067 | 42 | 2.54 [64.5] |
| VTM254-0/082 | 42 | 2.54 [64.5] |
| VTM254-0/089 | 42 | 2.54 [64.5] |
| VTM254-4 | 42 | 2.54 [64.5] |
| VTM280-0 | 42 | 2.80 [71.1] |
| VTM280-4 | 42 | 2.80 [71.1] |

Cups and Covers on Page 9
TS (Toroid Spacers) Page 41

SURFACE MOUNTS

Phone (800) 694-8089 • Fax (714) 970-0800

SURFACE MOUNT

STM106-6

Material: Diallyl Phthalate (Black)

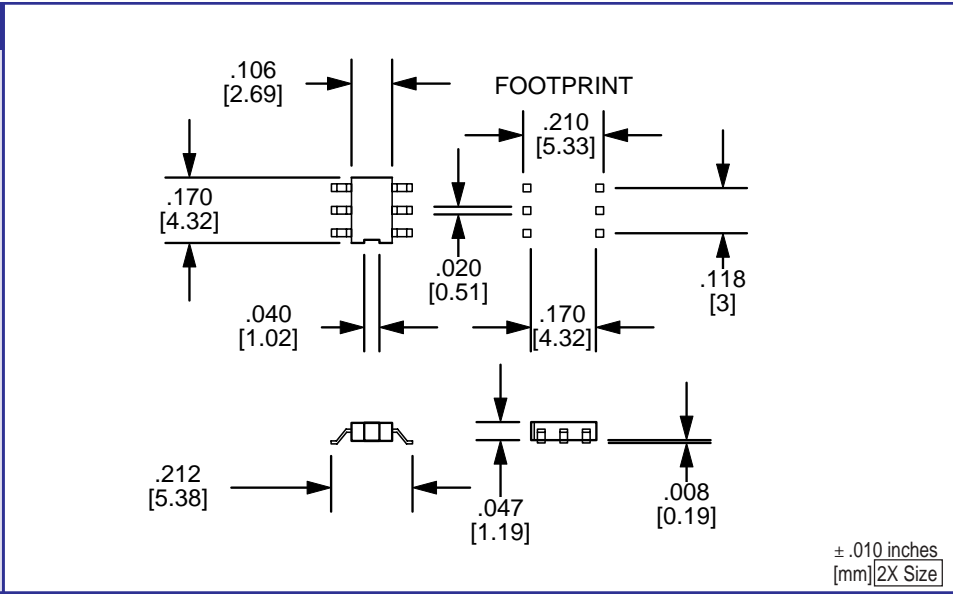
Rating: UL94-VO

6 Terminals: Alloy 42 Leadframe .008 x .020 90/10 Tin Plate

Solderability: Per MIL-STD-202 Method 208

Packaging Tray: TY50x50-A

Application: For gull wing surface mount of wound toroids and balun cores up to .106 inches in diameter or .170 inches long.



STM152-6

Material: Epoxy (Black)

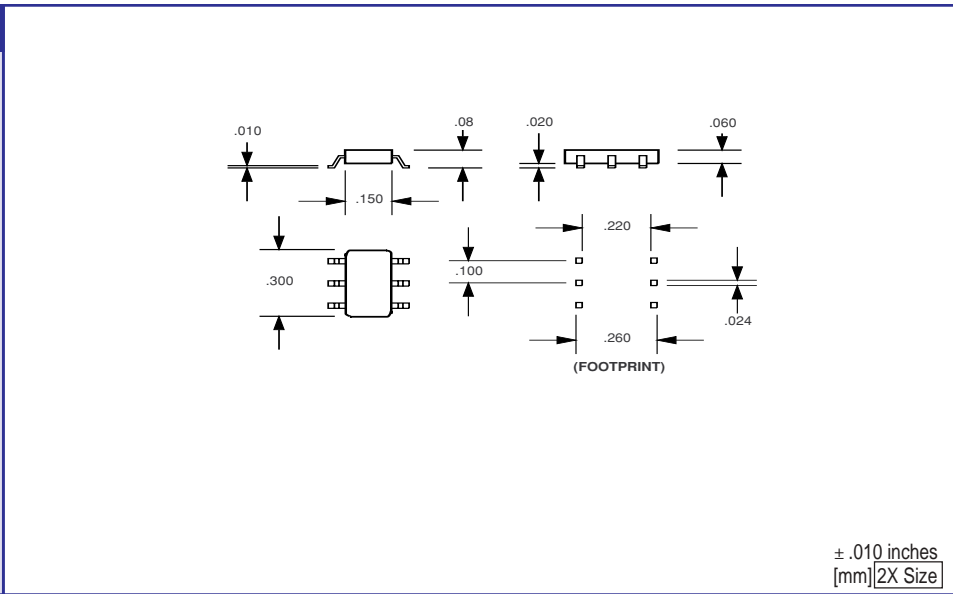
Rating: UL 94-VO

6 Terminals: Alloy 42 .024 x .010 Lead Frame 90/10 Tin Plated

Solderability: Per MIL-STD-202 Method 208

Packaging Tray: TY50x50-A

Application: For gull wing surface mounting of components and toroids up to .150 inches in diameter.



SMRF155-5

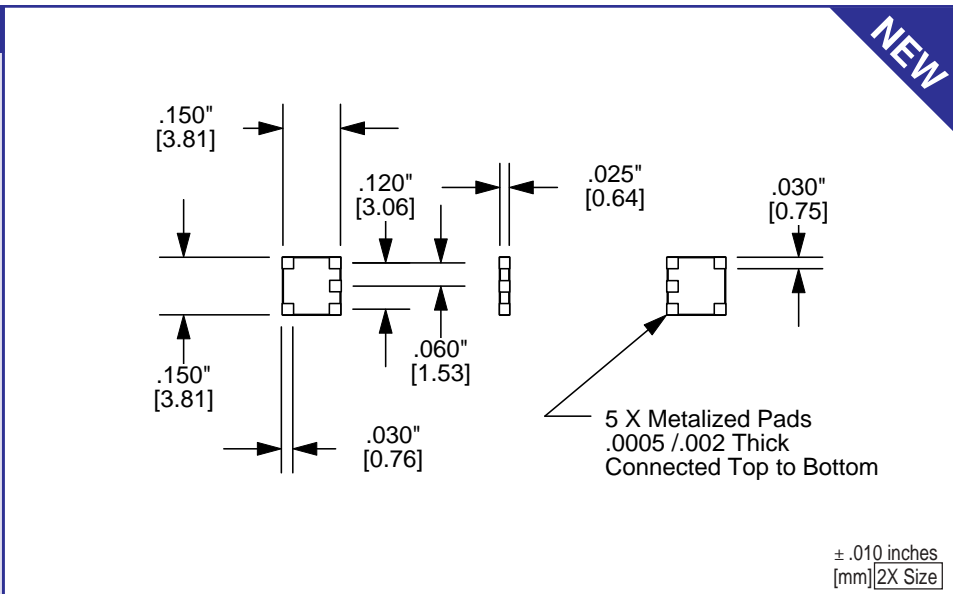
Material: Alumina Al₂O₃ >93% (White)

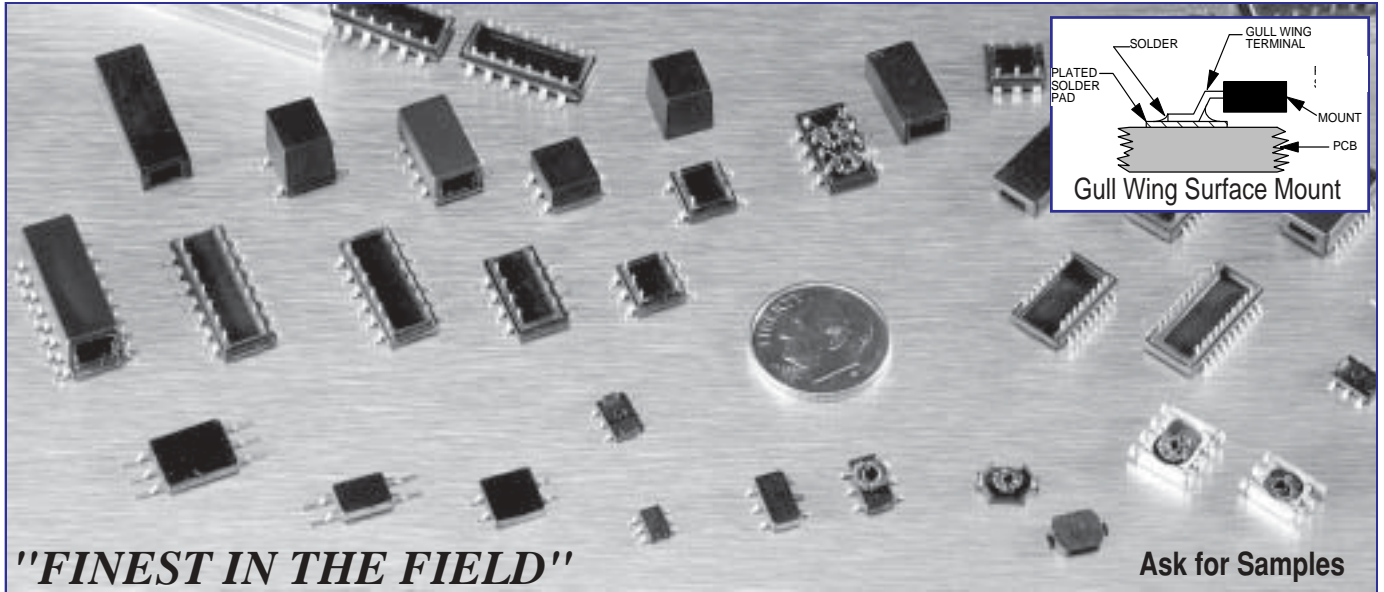
5 Terminals: Nickel, Gold Plated

Solderability: Per MIL-STD-202 Method 208

Packaging Tray: TY50x50-A

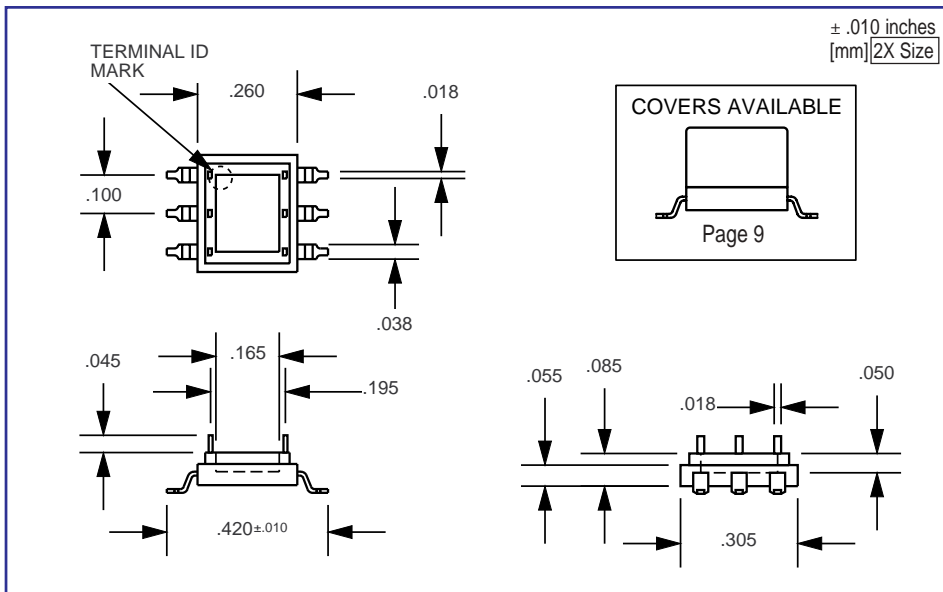
Application: For Radio Frequency transformer and inductor applications requiring low dielectric loss. Ideal for small toroids or balun cores.



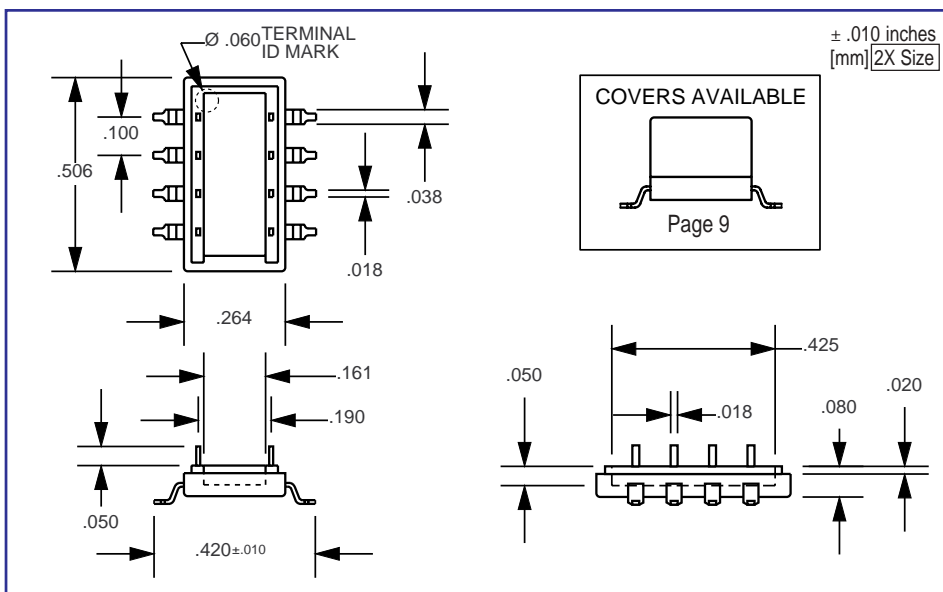


"FINEST IN THE FIELD"

Ask for Samples



| | |
|--|---------------------------------------|
| SMD165-6 | |
| Material: | Diallyl Phthalate (Black) |
| Rating: | UL94-VO |
| 6 Terminals: | Alloy 42 Leadframe 90/10 Tin Plate |
| Solderability: | Per MIL-STD-202 Method 208 |
| Packaging Tray: | TY50x50-A |
| Application: Gull wing surface mount version of the industry standard "dual-in-line" package. This product is shipped from Lodestone Pacific in anti-static shipping tubes. Encapsulation covers are available and sold separately. See page 9. | |



| | |
|--|---------------------------------------|
| SMD165-8 | |
| Material: | Diallyl Phthalate (Black) |
| Rating: | UL94-VO |
| 8 Terminals: | Alloy 42 Leadframe 90/10 Tin Plate |
| Solderability: | Per MIL-STD-202 Method 208 |
| Packaging Tray: | TY50x50-A |
| Application: Gull wing surface mount version of the industry standard "dual-in-line" package. This product is shipped from Lodestone Pacific in anti-static shipping tubes. Encapsulation covers are available and sold separately. See page 9. | |

SURFACE MOUNTS

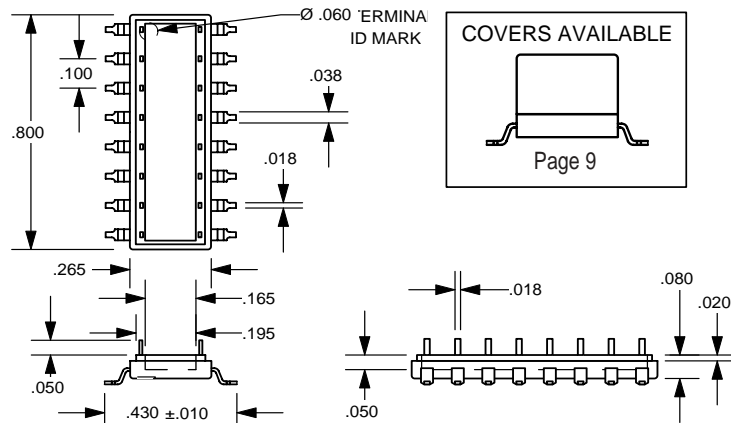
Phone (800) 694-8089 • Fax (714) 970-0800

SURFACE MOUNT

SMD165-16

Material: Diallyl Phthalate (Black)
Rating: UL94-VO
16 Terminals: Alloy 42 Leadframe 90/10 Tin Plate
Solderability: Per MIL-STD-202 Method 208
Packaging Tray: TY65x100-A

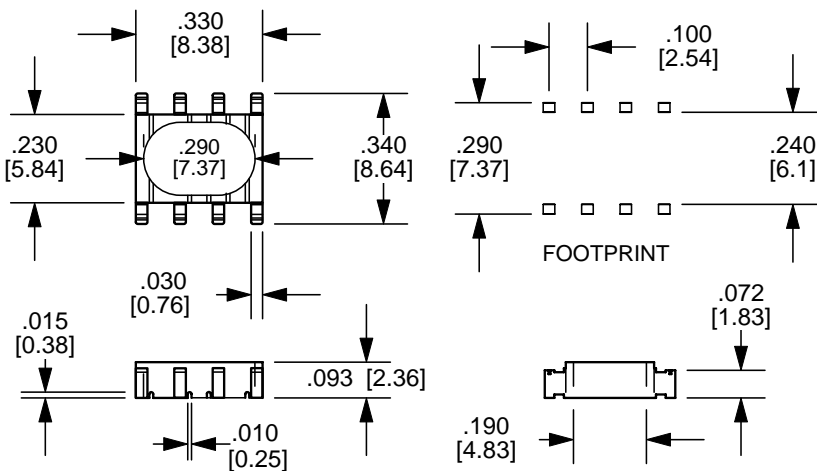
Application: Gull wing surface mount version of the industry standard "dual-in-line" package. This product is shipped from Lodestone Pacific in anti-static shipping tubes. Encapsulation covers are available and sold separately. See page 9.



± .010 inches
[mm]2X Size

STM180-08/100

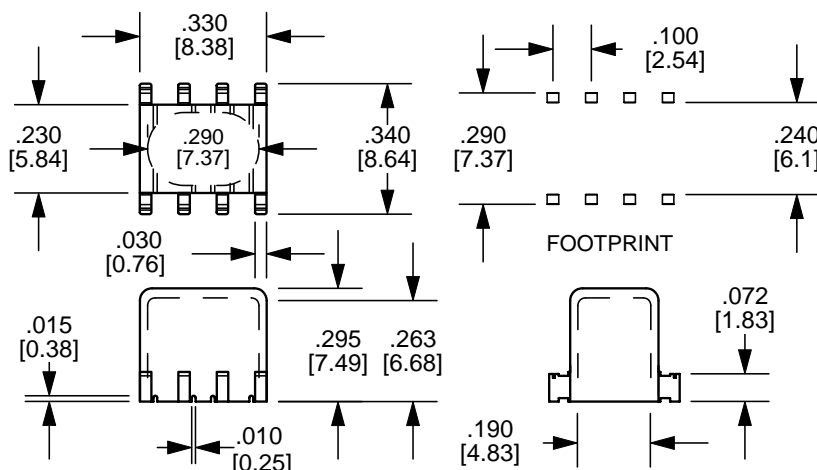
Material: LCP (Natural)
Rating: UL94-VO
8 Terminals: Self Leading
Packaging Tray: TY50x50-A
Application: For surface mounting of toroids with wound diameters up to .190 and a max height of .093 inches. The toroid leads are tinned, and wrapped around the tabs on the toroid mount. The toroid leads then make a direct connection to the PCB during infrared solder reflow. Co-planarity is dependant on the quality of the tinned wire wrap on the tabs. This "Shasta" style is a Pulse Engineering design.



± .010 inches
[mm]2X Size

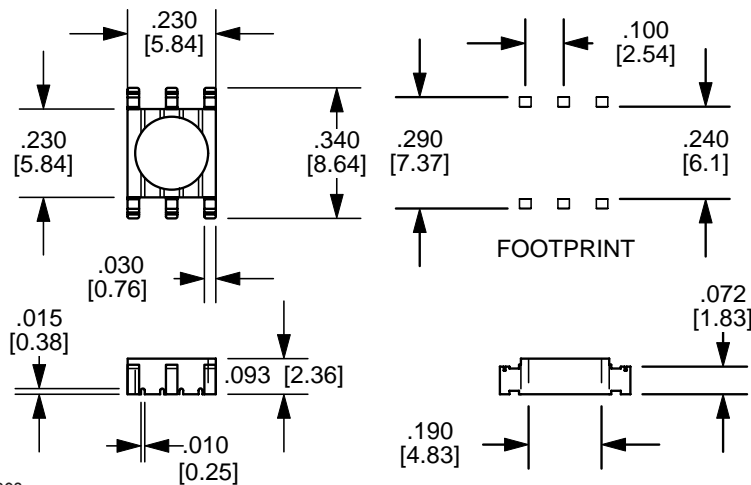
STM180-08/295

Material: LCP(Natural)
Rating: UL94-VO
8 Terminals: Self Leading
Packaging Tray: TY50x50-A
Application: For surface mounting of toroids with wound diameters up to .190 inches. The toroid leads are tinned, and wrapped around the tabs on the toroid mount. The toroid leads then make a direct connection to the PCB during infrared solder reflow. Coplanarity is dependant on the quality of the tinned wire wrap on the tabs. Ideal for automatic pick and place. This "High Shasta" style is a Pulse Engineering design.



± .010 inches
[mm]2X Size

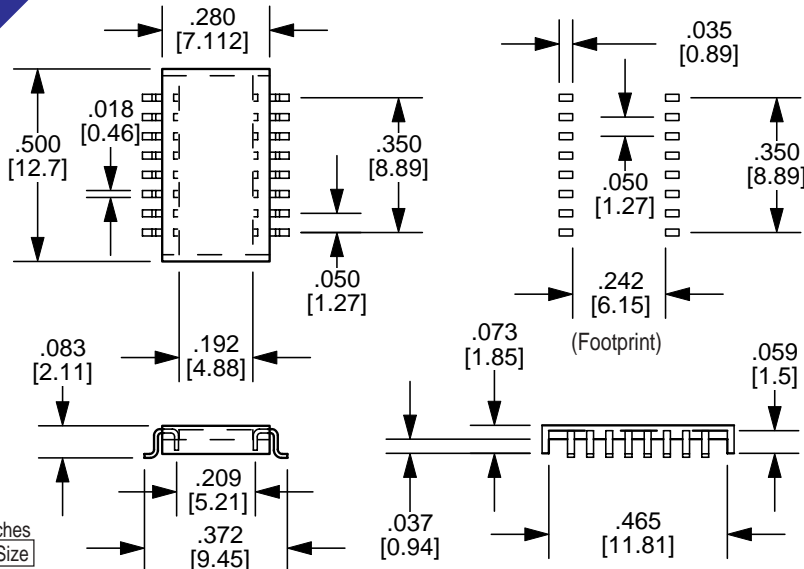
STM190-06



Material: LCP (Natural)
Rating: UL94-VO
6 Terminals: Self Leading
Packaging Tray: TY50x50-A
Application: For surface mounting of toroids with wound diameters up to .190 and a max height of .093 inches. The toroid leads are tinned, and wrapped around the tabs on the toroid mount. The toroid leads then make a direct connection to the PCB during Infrared solder reflow. Coplanarity is dependant on the quality of the tinned wire wrap on the tabs. This is a Pulse Engineering design.

SMD193-16

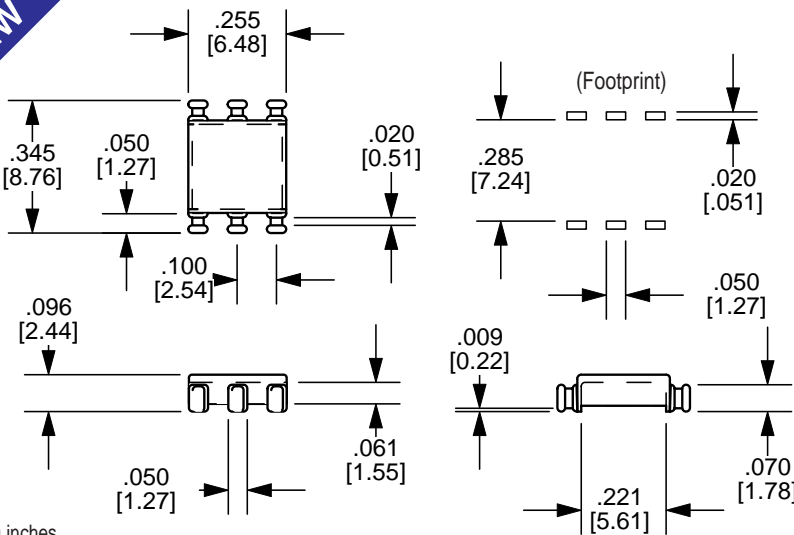
NEW



Material: Diallyl Phthalate (Black)
Rating: UL94-VO
16 Terminals: Alloy 42 LeadFrame Tin Plated
Solderability: Per MIL-STD-202 Method 208
Packaging Tray: TY50x50-A
Application: Gull wing surface mount. suitable for wound toroids up to .192 inches in diameter. The toroid is mounted under the mount in a cup like recess. This product is shipped from Lodestone Pacific in anti-static shipping tubes.

STM198-06

NEW



Material: LCP (Natural)
Rating: UL94-VO
6 Terminals: Self Leading
Packaging Tray: TY50x50-A
Application: For surface mounting of toroids with wound diameters up to .221 and a max height of .056 inches. The toroid leads are tinned, and wrapped around the tabs on the toroid mount. The toroid leads then make a direct connection to the PCB during Infrared solder reflow. Coplanarity is dependant on the quality of the tinned wire wrap on the tabs.

SURFACE MOUNTS

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SURFACE MOUNT

SMD200-14

Material: Diallyl Phthalate (Black)

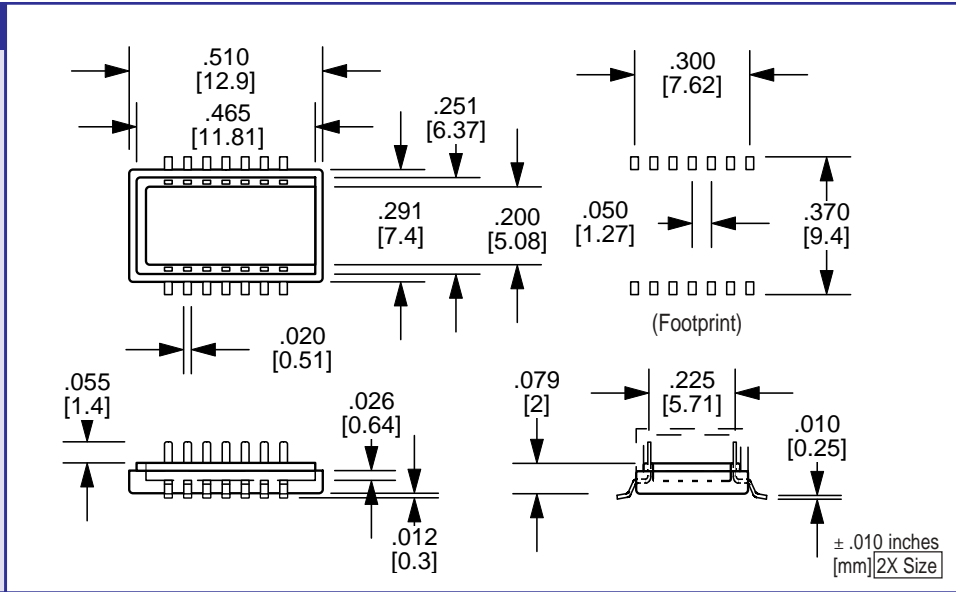
Rating: UL94-VO

14 Terminals: Alloy 42 Leadframe
90/10 Tin Plate

Solderability: Per MIL-STD-202 Method 208

Packaging Tray: TY45x70-A

Application: Gull wing surface mount version of the "dual-in-line" package but with .050 terminal spacing. Suitable for wound toroids up to .200 inches in dia. This product is shipped from Lodestone Pacific in anti-static shipping tubes. Encapsulation covers are available and sold separately. See page 9.



SMD200-20

Material: Diallyl Phthalate (Black)

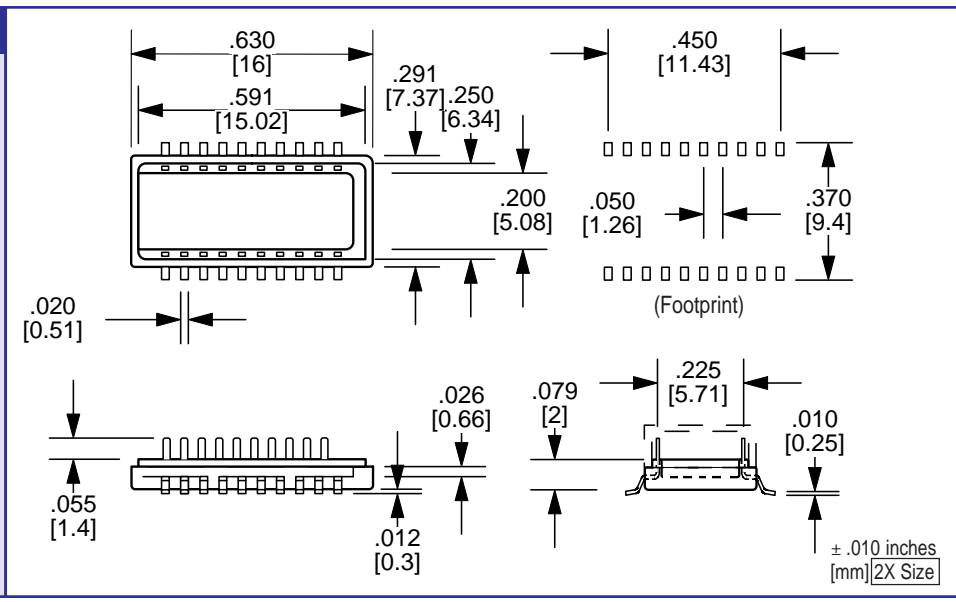
Rating: UL94-VO

20 Terminals: Alloy 42 Leadframe
90/10 Tin Plate

Solderability: Per MIL-STD-202 Method 208

Packaging Tray: TY45x70-A

Application: Gull wing surface mount version of the "dual-in-line" package but with .050 terminal spacing. Suitable for wound toroids up to .200 inches in dia. This product is shipped from Lodestone Pacific in anti-static shipping tubes. Encapsulation covers are available and sold separately. See page 9.



STM205-02

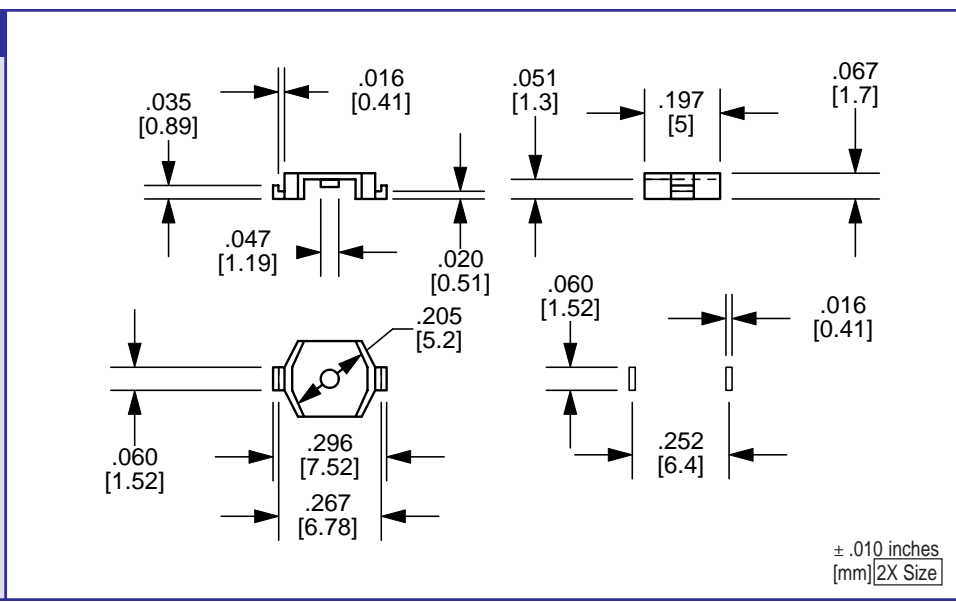
Material: LCP (Black)

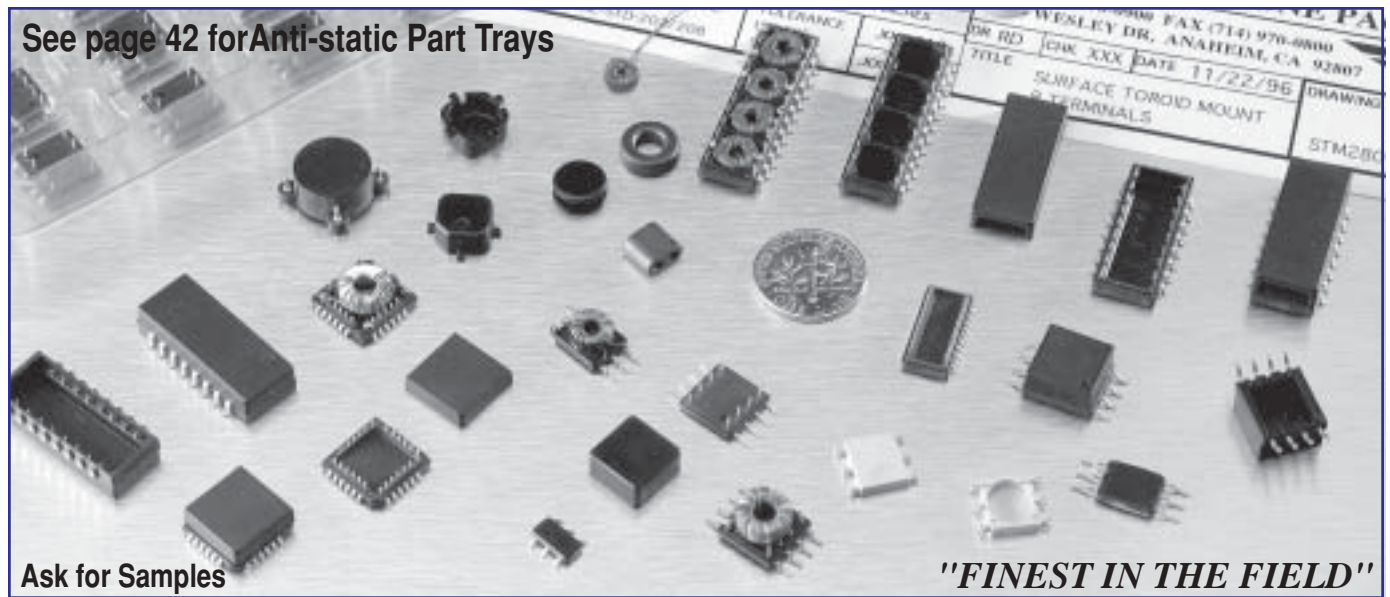
Rating: UL 94-VO

2 Terminals: Self Leading

Packaging Tray: TY50x50-A

Application: For horizontal surface mounting of wound toroids up to .205 in diameter. The toroid's tinned leads are wrapped around the molded tabs to form the surface mount terminal. Ideal for automatic pick and place.

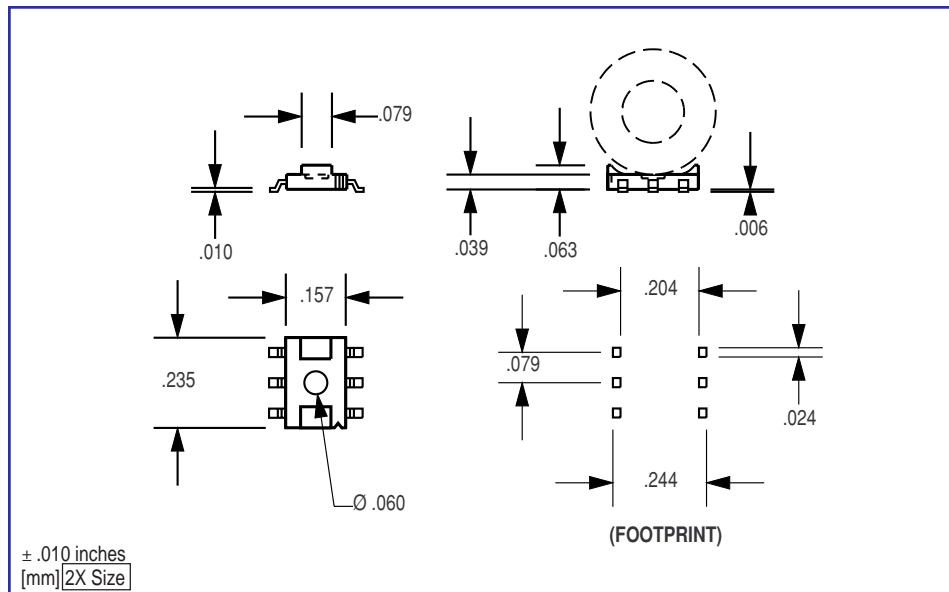




See page 42 for Anti-static Part Trays

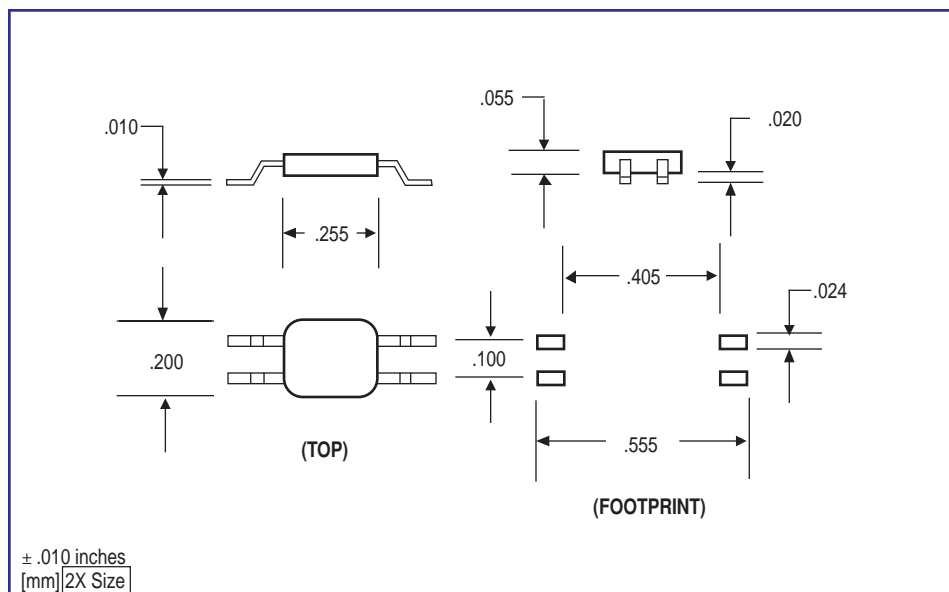
Ask for Samples

"FINEST IN THE FIELD"



STM240-6

- Material:** Diallyl Phthalate (Black)
- Rating:** UL 94-VO
MIL-STD-2000
- 6 Terminals:** Alloy 42
.020 x .010
Lead Frame
90/10 Tin Plated
- Solderability:** Per MIL-STD-202
Method 208
- Packaging Tray:** TY50x50-A
- Application:** For gull wing surface mounting of components and vertical or horizontal wound toroids up to .240 inches in diameter.



STM255-4

- Material:** Epoxy (Black)
- Rating:** UL 94-VO
- 4 Terminals:** Alloy 42
.024 X .010 Lead
Frame 90/10
Tin Plated
- Solderability:** Per MIL-STD-202
Method 208
- Packaging Tray:** TY45x70-A
- Application:** For gull wing surface mounting of components and wound toroids up to .255 inches in diameter.

SURFACE MOUNTS

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SURFACE MOUNT

SMRF258-4

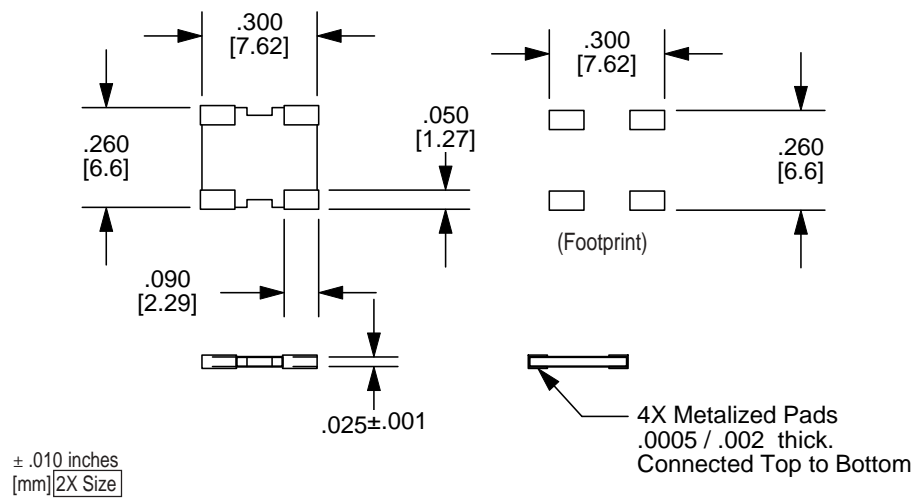
Material: Alumina Al₂O₃ >93% (White)

4 Terminals: Nickel, Gold Plated

Solderability: Per MIL-STD-202 Method 208

Packaging Tray: TY50x50-A

Application: For Radio Frequency transformer and inductor applications requiring low dielectric loss. Ideal for small toroids or balun cores.



SMRF258-6

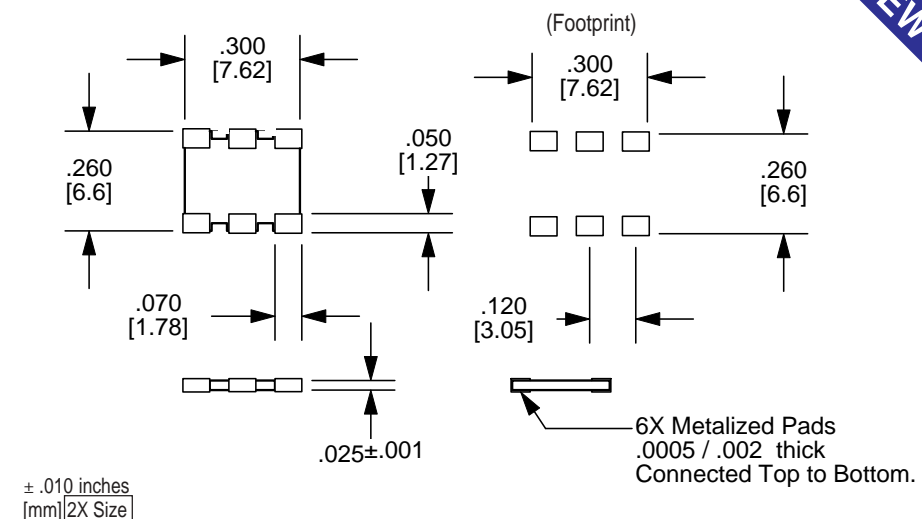
Material: Alumina Al₂O₃ >93% (White)

6 Terminals: Nickel, Gold Plated

Solderability: Per MIL-STD-202 Method 208

Packaging Tray: TY50x50-A

Application: For Radio Frequency transformer and inductor applications requiring low dielectric loss. Ideal for small toroids or balun cores.



NEW

STM260-4

Material: Epoxy (Black)

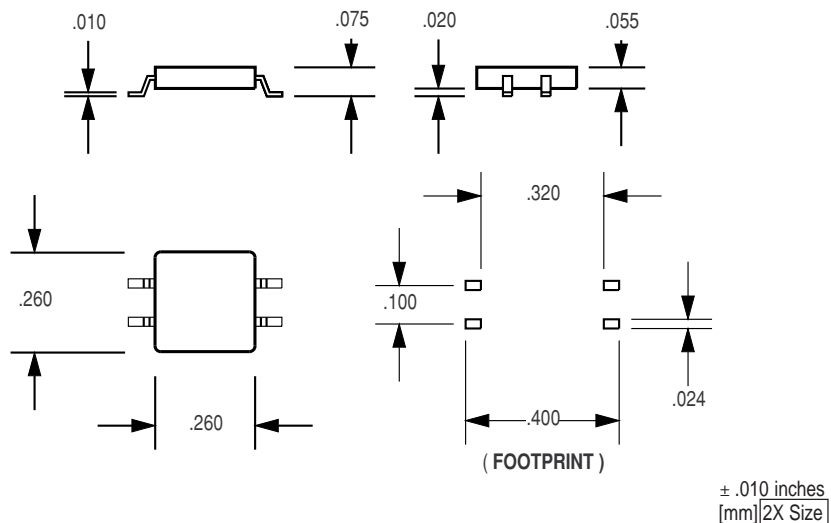
Rating: UL94-VO

4 Terminals: Alloy 42
.024 X .010
Lead Frame
90/10 Tin Plate

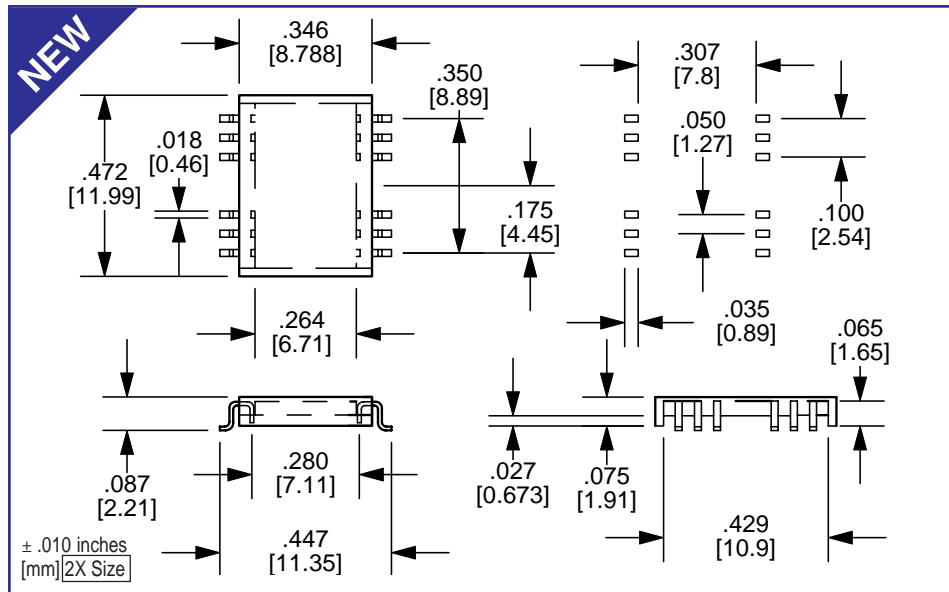
Solderability: Per MIL-STD-202 Method 208

Packaging Tray: TY50x50-A

Application: For gull wing surface mounting of components and wound toroids up to .260 inches in diameter.



SURFACE MOUNT



SMD261-12

Material: Diallyl Phthalate (Black)

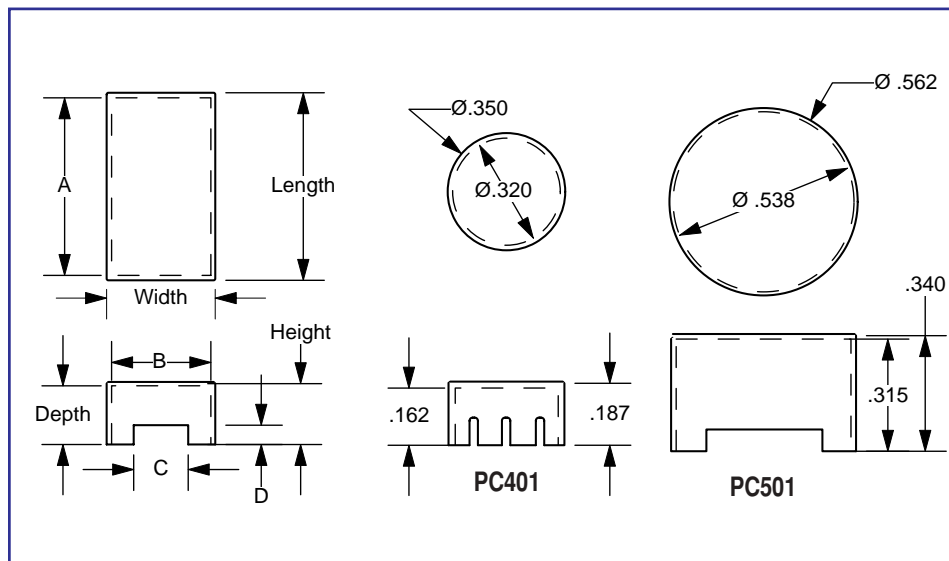
Rating: UL94-VO

12 Terminals: Alloy 42 LeadFrame Tin Plated

Solderability: Per MIL-STD-202 Method 208

Packaging Tray: TY50x50-A

Application: Gull wing surface mount. suitable for wound toroids up to .260 inches in diameter. The toroid is mounted under the mount in a cup like recess. This product is shipped from Lodestone Pacific in anti-static shipping tubes.



POTTING CUPS & COVERS

Material: Diallyl Phthalate (DAP) (Black)

Rating: UL94-VO

Application: For potting and sealing toroids and components on surface mount devices. This protects the component-to-mount connections, facilitates part number marking and automatic pick and place. All cups and covers are sold separately. Custom sizes are available.

The Cup or Cover part number will match the mount. For example, PC280 will fit STM280-8, and STM350-24 goes with cover PC350/123. The number after the slash indicates the cup's height.

| Cup Part No. | Mount No. | Length | Width | Height | Depth | A | B | C | D | Mat'l |
|---------------|-----------|-------------|-------------|------------|------------|-------------|-------------|-------------|------------|-------|
| PC165-6/115 | SMD165-6 | .305 [7.7] | .260 [6.6] | .115 [2.9] | .095 [2.4] | .265 [6.7] | .220 [5.6] | ---- | ---- | DAP |
| PC165-6/160 | SMD165-6 | .305 [7.7] | .260 [6.6] | .160 [4.1] | .140 [3.5] | .250 [6.4] | .220 [5.6] | ---- | ---- | DAP |
| PC165-6/175 | SMD165-6 | .305 [7.7] | .260 [6.6] | .175 [4.4] | .155 [3.9] | .265 [6.7] | .220 [5.6] | ---- | ---- | DAP |
| PC165-8/155H | SMD165-8 | .506 [12.8] | .265 [6.7] | .155 [3.9] | .135 [3.4] | .466 [11.8] | .224 [5.7] | .195 [4.9] | .125 [3.2] | DAP |
| PC165-16/160H | SMD165-16 | .790 [20.1] | .265 [6.7] | .160 [4.1] | .140 [3.5] | .750 [19.1] | .224 [5.7] | .170 [4.3] | .136 [3.4] | DAP |
| PC200-14/108H | SMD200-14 | .505 [12.8] | .293 [7.4] | .108 [2.7] | .089 [2.2] | .467 [11.8] | .251 [6.4] | .157 [4.0] | .060 [1.5] | DAP |
| PC200-20/108H | SMD200-20 | .631 [16.0] | .291 [7.4] | .108 [2.7] | .089 [2.2] | .593 [15.1] | .251 [6.4] | .157 [4.0] | .060 [1.5] | DAP |
| PC266-16/154H | SMD266-16 | .933 [23.7] | .381 [9.7] | .154 [3.9] | .117 [3.0] | .880 [22.4] | .350 [8.9] | .295 [7.5] | .165 [4.2] | DAP |
| PC266-16/242H | SMD266-16 | .933 [23.7] | .381 [9.7] | .242 [6.1] | .206 [5.2] | .880 [22.4] | .350 [8.9] | .295 [7.5] | .165 [4.2] | DAP |
| PC280 | STM280-8 | .400 [10.2] | .400 [10.2] | .210 [5.3] | .190 [4.8] | .365 [9.3] | .365 [9.3] | ---- | ---- | DAP |
| PC290-16/160H | SMD290-16 | 1.01 [25.6] | .392 [9.9] | .160 [4.1] | .120 [3.0] | .968 [24.6] | .352 [8.9] | .315 [8.0] | .120 [3.0] | DAP |
| PC350/123 | STM350-24 | .457 [11.6] | .457 [11.6] | .123 [3.1] | .103 [2.6] | .415 [10.6] | .415 [10.6] | ---- | ---- | DAP |
| PC390 | STM390-8 | .525 [13.3] | .475 [12.1] | .280 [7.1] | .250 [6.3] | .430 [10.9] | .480 [12.2] | ---- | ---- | DAP |
| PC430-24/200H | SMD430-24 | 1.27 [32.3] | .565 [14.4] | .200 [5.1] | .180 [4.6] | 1.23 [31.3] | .531 [13.5] | .488 [12.4] | .161 [4.1] | DAP |
| PC581 | STM581-8 | .770 [19.6] | .650 [16.5] | .280 [7.1] | .250 [6.3] | .720 [18.3] | .600 [15.2] | ---- | ---- | DAP |
| PC581/330 | STM581-8 | .770 [19.6] | .650 [16.5] | .330 [8.4] | .300 [7.6] | .720 [18.3] | .600 [15.2] | ---- | ---- | DAP |
| PC880 | STM880-8 | .925 [23.4] | .925 [23.4] | .365 [9.3] | .335 [8.5] | .875 [22.2] | .875 [22.2] | ---- | ---- | DAP |

SURFACE MOUNTS

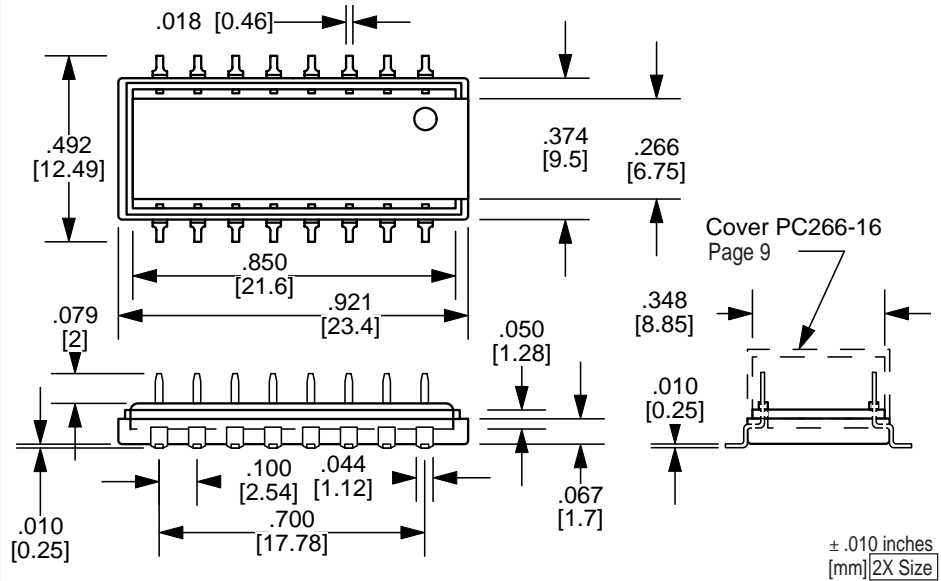
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SURFACE MOUNT

SMD266-16

Material: Diallyl Phthalate (Black)
Rating: UL94-VO
16 Terminals: Alloy 42 LeadFrame Tin Plated
Solderability: Per MIL-STD-202 Method 208
Packaging Tray: TY65x100-A

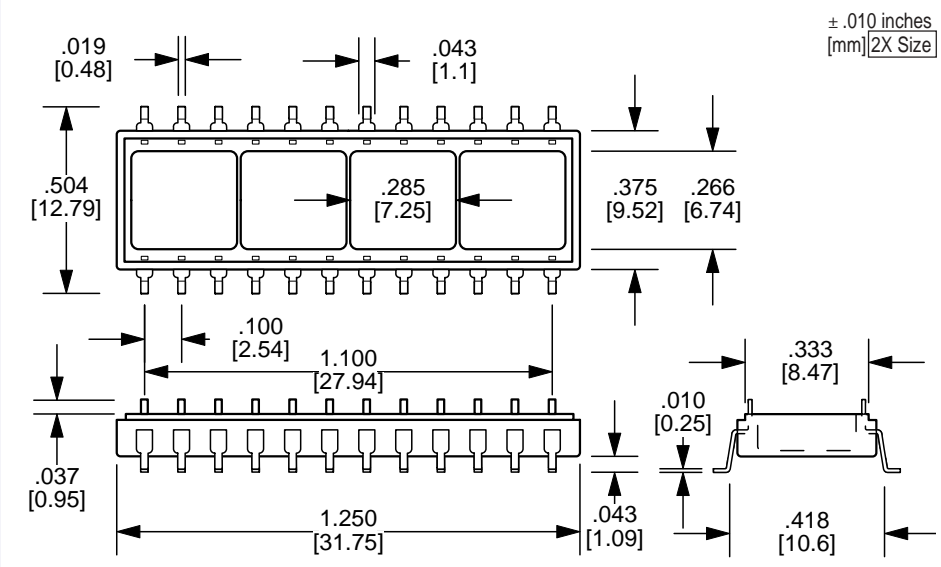
Application: Gull wing surface mount. Suitable for wound toroids up to .266 inches in diameter. This product is shipped from Lodestone Pacific in anti-static shipping tubes. Encapsulation covers are available and sold separately. See page 9.



SMD266-24

Material: Diallyl Phthalate (Black)
Rating: UL94-VO
24 Terminals: Alloy 42 LeadFrame Tin Plated
Solderability: Per MIL-STD-202 Method 208
Packaging Tray: None

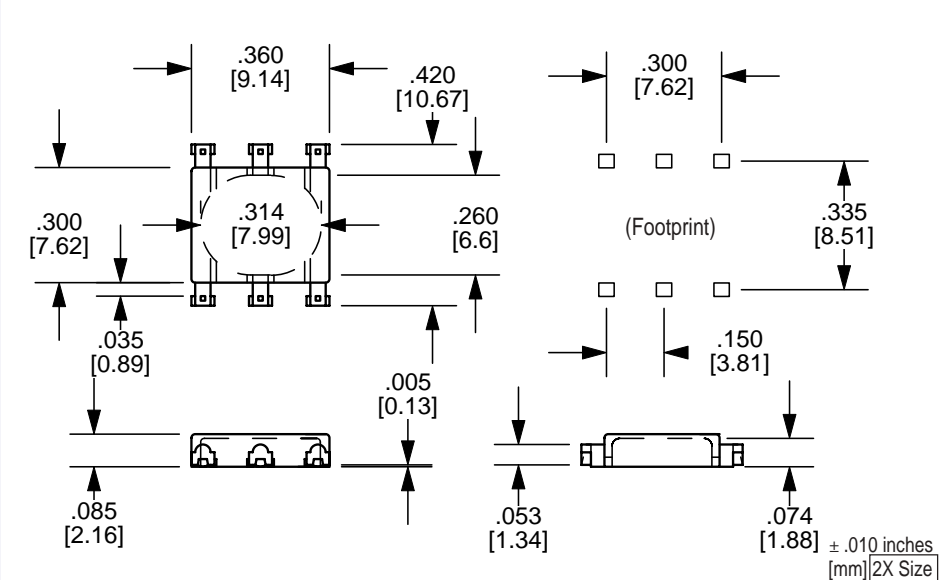
Application: Gull wing surface mount. Suitable for wound toroids up to .266 inches in diameter. This product is shipped from Lodestone Pacific in anti-static shipping tubes. Encapsulation covers are available and sold separately. See page 9.

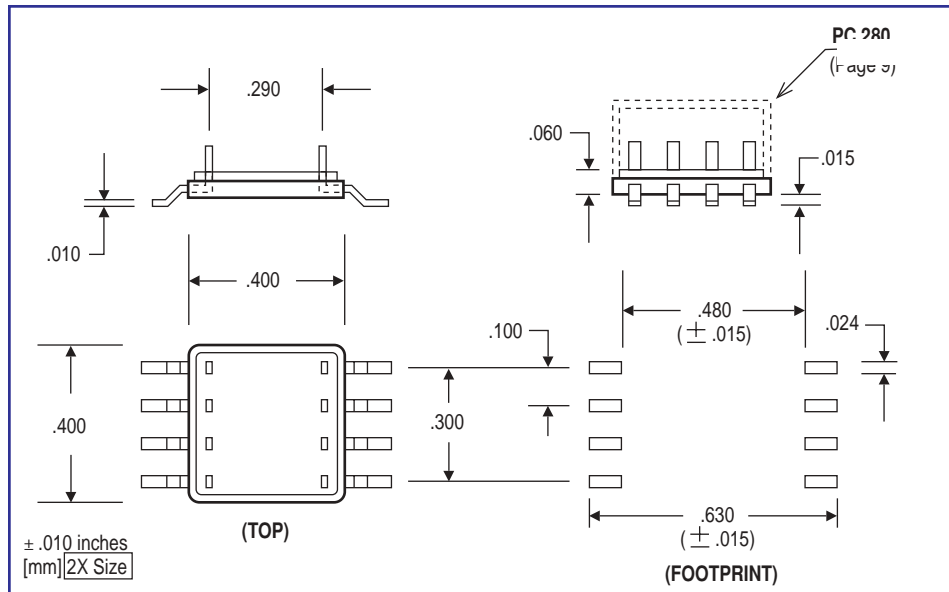


STM270-06

Material: LCP (Natural)
Rating: UL94-VO
6 Terminals: Self Leading
Packaging Tray: TY50x50-A

Application: For surface mounting of toroids with wound diameters up to .260 and a max height of .070 inches. The toroid leads are tinned, and wrapped around the tabs on the toroid mount. The toroid leads then make a direct connection to the PCB during infrared solder reflow. Coplanarity is dependant on the quality of the tinned wire wrap on the tabs. This is a Pulse Engineering design.





STM280-8

Material: Diallyl Phthalate (Black)

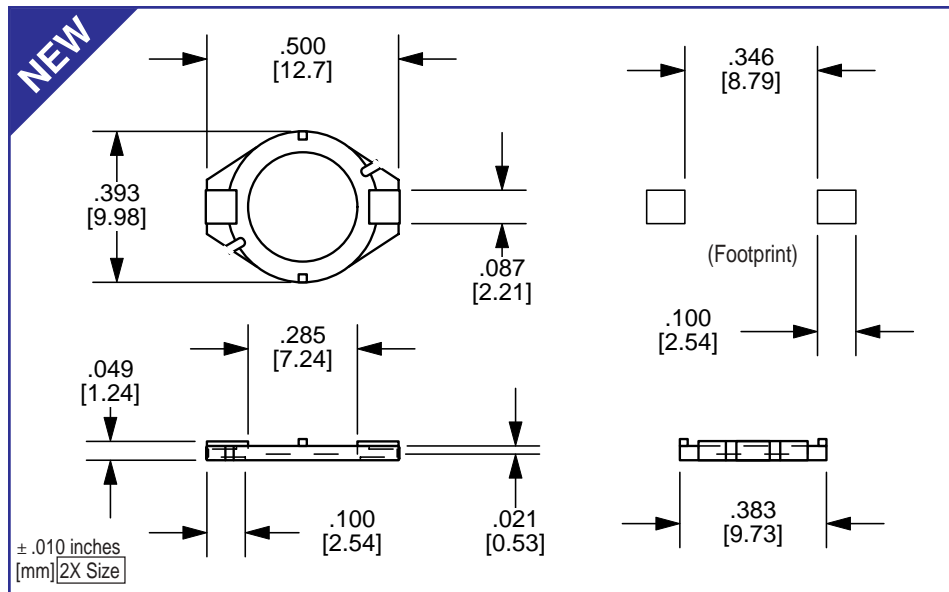
Rating: UL 94-VO

8 Terminals: Alloy 42 .020 X .010 Lead Frame 90/10 Tin Plated

Solderability: Per MIL-STD-202 Method 208

Packaging Tray: TY45x70-A

Application: For surface mounting of components and wound toroids up to .280 inches in diameter. This product is shipped from Lodestone Pacific in anti-static shipping tubes. Encapsulation covers are available and sold separately. See page



SMDR285-2

Material: Phenolic (Black)

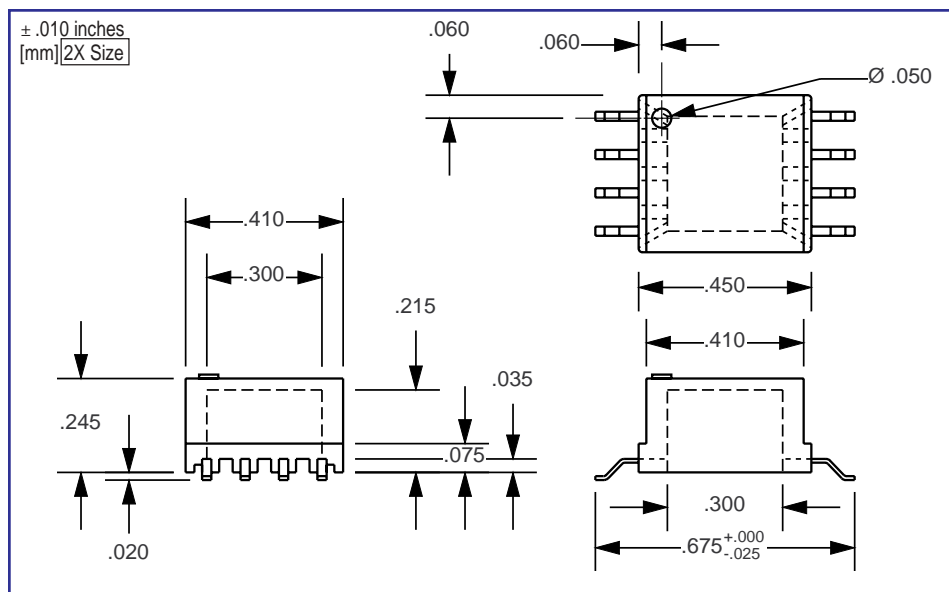
Rating: UL94-VO

2Terminals: Phosphor Bronze 90/10 Tin Plate

Solderability: Per MIL-STD-202 Method 208

Packaging Tray: TY45x70-A

Application: " Designed for up to 7 mm drum syle bobbin cores. Also suitable for wound toroids up to .285 inches in diameter for inductor applications..



STM300-8

Material: Phenolic (Black)

Rating: UL94-VO

8 Terminals: Alloy 42 .020 x .010 Leadframe Tin Plated

Solderability: Per MIL-STD-202 Method 208

Packaging Tray: TY45x70-A

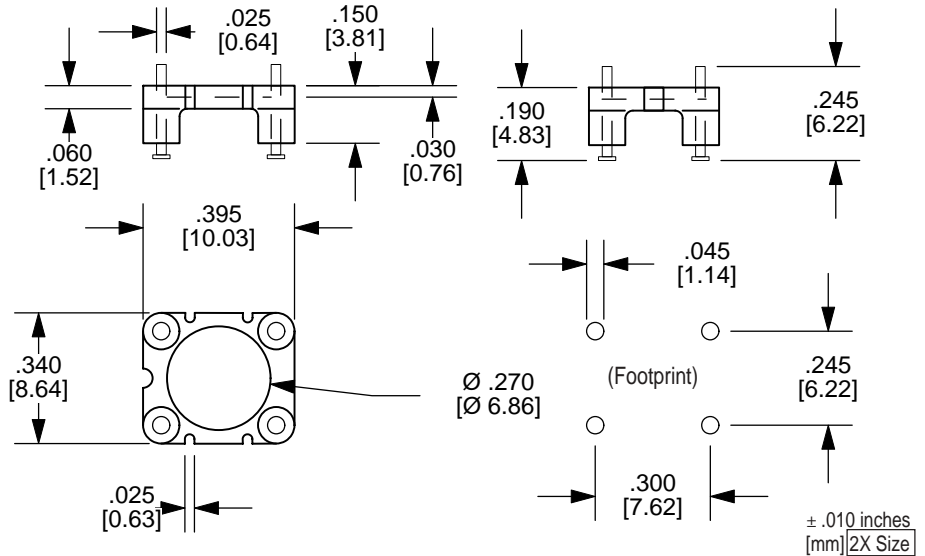
Application: For surface horizontal mounting of components and wound toroids up to .300 inches in diameter.

SURFACE MOUNT

STM302-4

Material: LCP (Black)
Rating: UL94-VO
4 Terminals:
Solderability: Per MIL-STD-202 Method 208
Packaging Tray: TY50x50-A

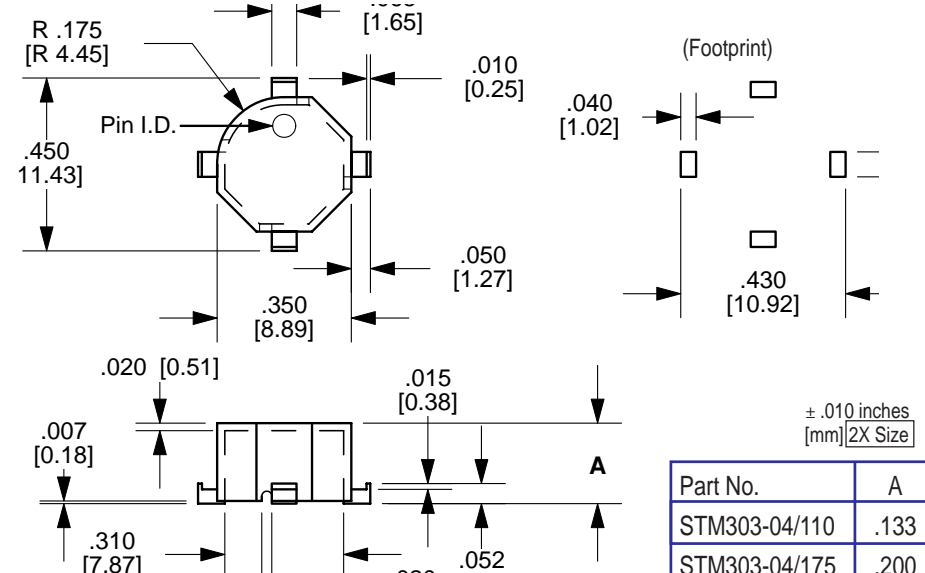
Application: For surface horizontal mounting of components and wound toroids up to .300 inches in diameter. This mount is a variation of the "Sled" series, on page 18, utilizes "Lunar Lander" terminals to create four surface mount terminations.



STM303-04/110, STM303-04/175

Material: LCP (Natural)
Rating: UL94-VO
4 Terminals: Self Leading
Packaging Tray: TY50x50-A

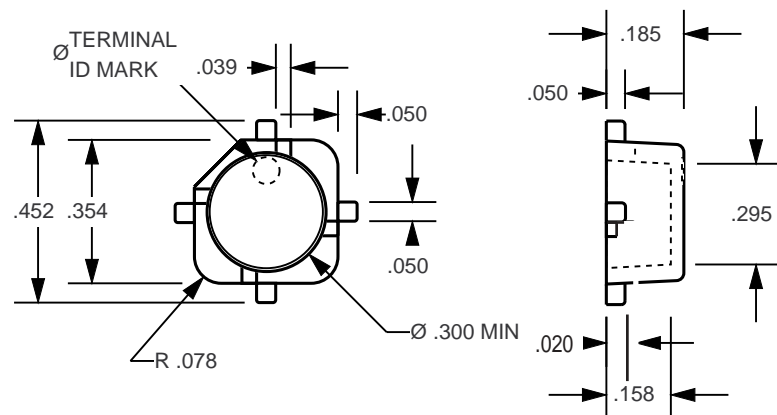
Application: For surface mounting of toroids with wound diameters up to .303 inches, and .110 or .175 inches in height. The toroid leads are tinned and wrapped around the tabs on the toroid mount. The toroid leads then make a direct connection to the solderpaste on the printed circuit board pad during infrared solder reflow. Coplanarity is dependant on the quality of the tinned wire wrap on the tabs. Ideal for automatic pick and place.



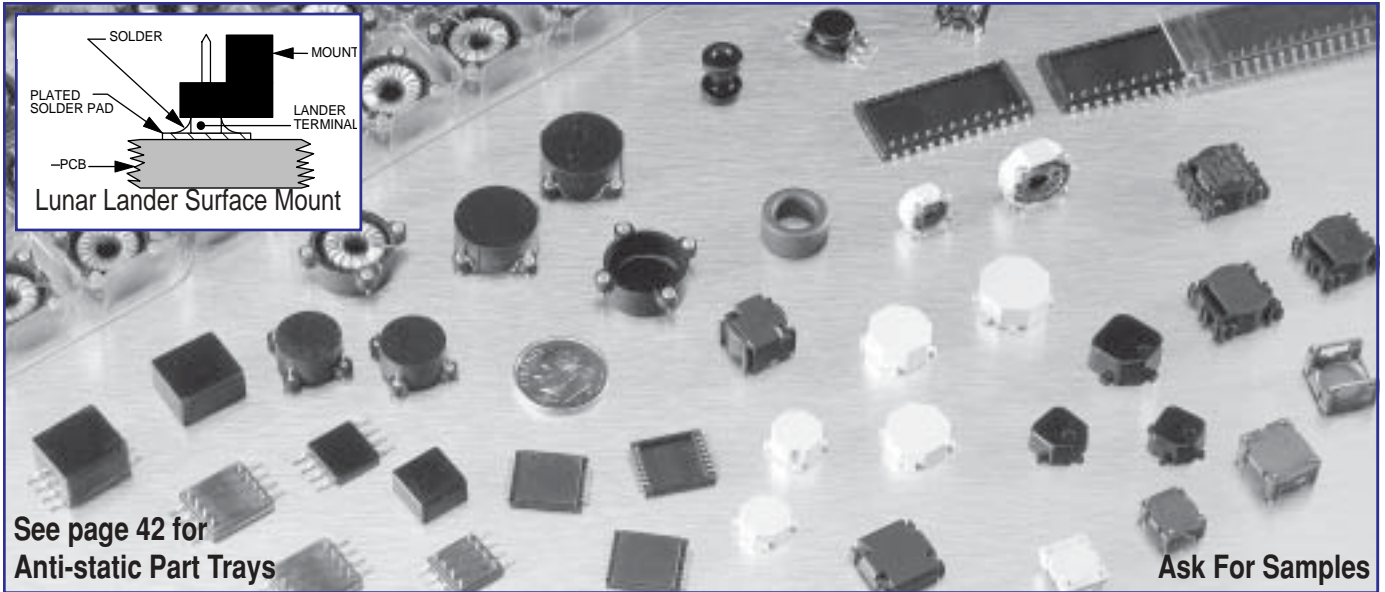
STM305-04

Material: Phenolic (Black)
Rating: UL94-VO
4 Terminals: Self Leading
Packaging Tray: TY50x50-A

Application: For surface mounting of toroids with wound diameters up to .305 inches. The toroid leads are tinned, and wrapped around the tabs on the toroid mount. The toroid leads then make a direct connection to the solder paste on the printed circuit board pad during infrared solder reflow. Co-planarity is dependant on the quality of the tinned wire wrap on the tabs.

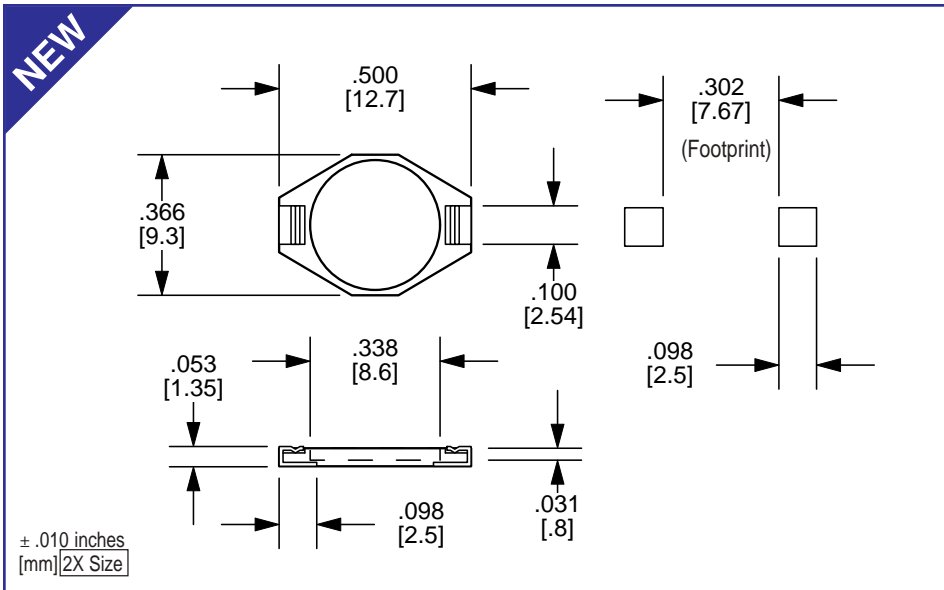


± .010 inches [mm] 2X Size



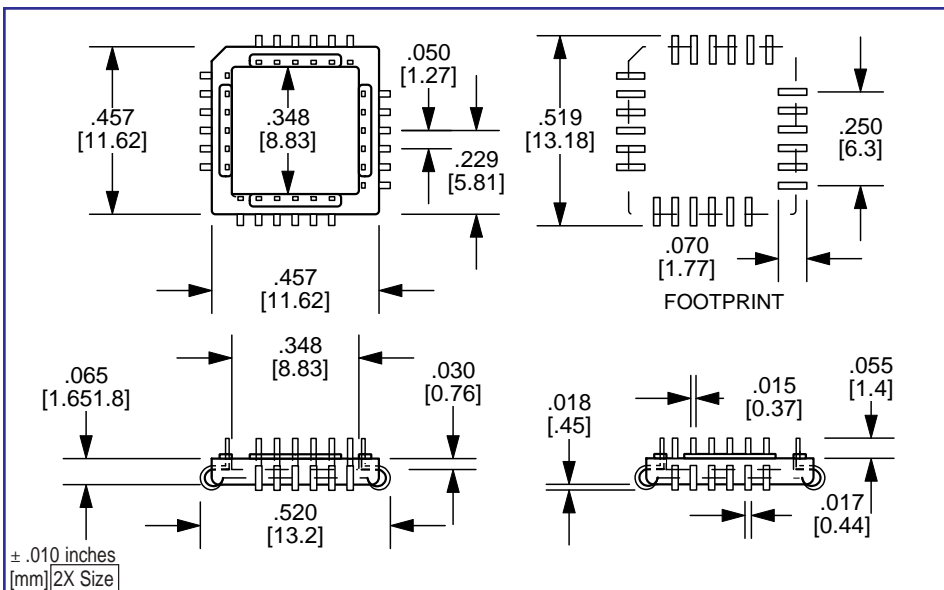
See page 42 for
Anti-static Part Trays

Ask For Samples



SMDR338-2

- Material:** Phenolic (Black)
- Rating:** UL94-VO
- 2Terminals:** Phosphor Bronze 90/10 Tin Plate
- Solderability:** Per MIL-STD-202 Method 208
- Packaging Tray:** TY45x70-A
- Application:** Designed for up to 8.5 mm drum syle bobbin cores. Also suitable for wound toroids up to .338 inches in diameter for inductor applications.



STM350-24

- Material:** Diallyl Phthalate (Black)
- Rating:** UL94-VO
- 24 Terminals:** Alloy 42 Leadframe 90/10 Tin Plate
- Solderability:** Per MIL-STD-202 Method 208
- Packaging Tray:** TY74x77-A
- Application:** "J" Lead surface mount header. Suitable for wound toroids up to .350 inches in diameter. Encapsulation covers are available and sold separately. See page 9.

SURFACE MOUNTS

Phone (800) 694-8089 • Fax (714) 970-0800

SURFACE MOUNT

STM360-4

Material: Diallyl Phthalate (Black)

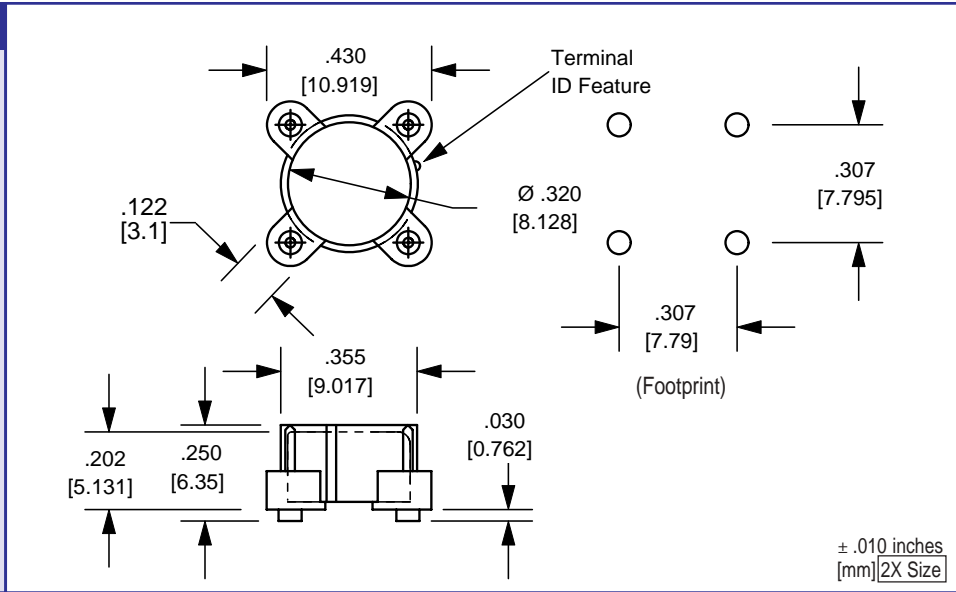
Rating: UL94-VO

4 Terminals: Brass, Ni Flash
100% Tin Plated

Solderability: Per MIL-STD-202 Method 208

Packaging Tray: TY50x50-A

Application: For low profile horizontal surface mounting of wound toroids up to .320 inches in diameter. "Lunar Lander" terminal design improves coplanarity, terminal durability during handling and transit, and uses less circuit board real estate. Ideal for automatic pick and place.



STM365-6

Material: Epoxy (Black)

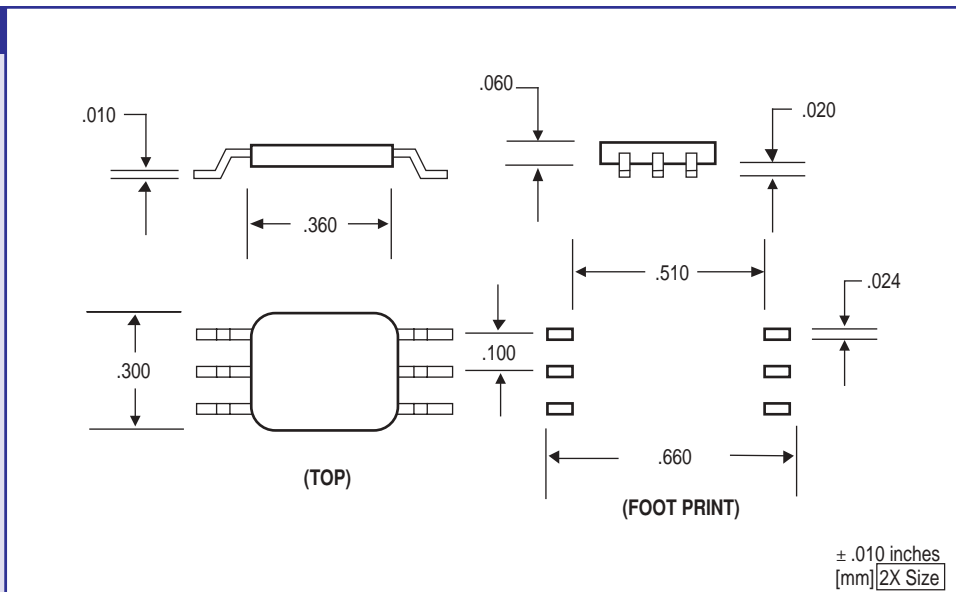
Rating: UL 94-VO

6 Terminals: Alloy 42
.024 X .010 Lead
Frame 90/10
Tin Plated

Solderability: Per MIL-STD-202 Method 208

Packaging Tray: TY45x70-A

Application: For gull wing surface mounting of components and wound toroids up to .360 inches in diameter.



STM37CS-06

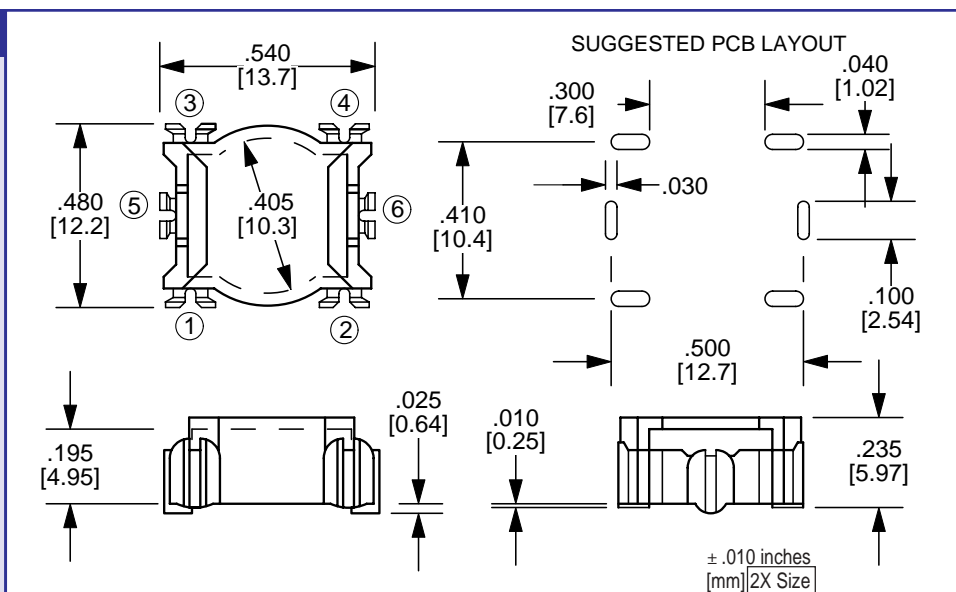
Material: Ryton R4 (Black)

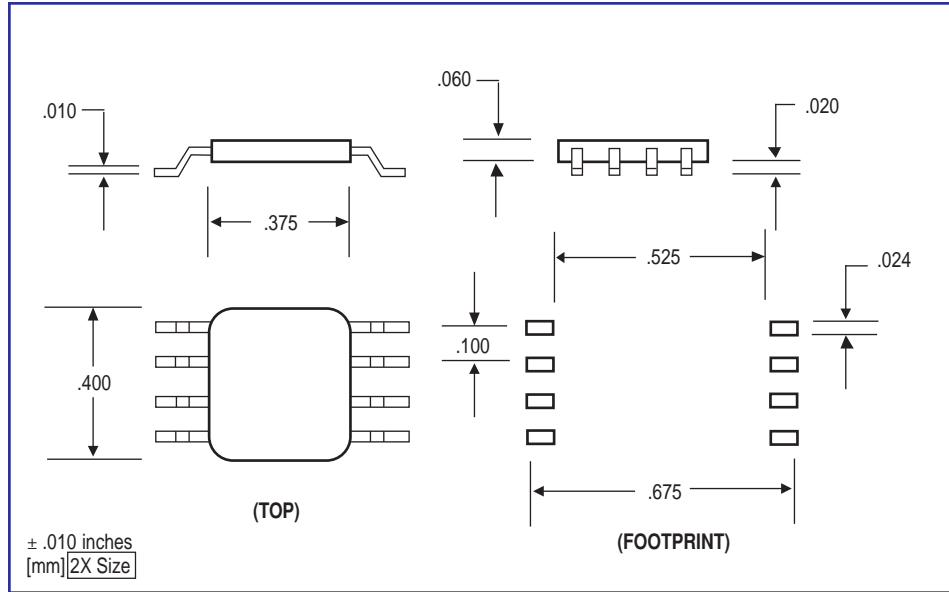
Rating: UL 94-VO

6 Terminals: Self Leading

Packaging Tray: TY74x77-A

Application: For self leading, surface mount, transformers or current sensors. The case is designed for wound toroids up to .400 inches in diameter and uses the toroid's winding leads to surface mount the toroid and case to the PCB. Use #34 AWG (.006) in termination positions 5 & 6 and #24 AWG (.020) in positions 1,2,3,& 4. This product is the patented concept of **Pulse Engineering Inc.**





STM375-8

Material: Epoxy (Black)

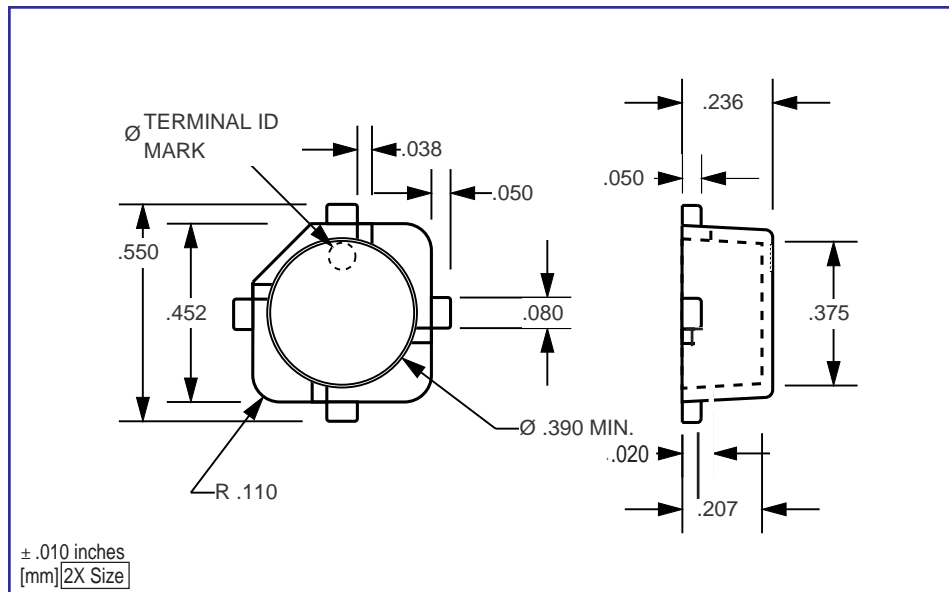
Rating: UL 94-VO

8 Terminals: Alloy 42
.024 X .010 Lead
Frame 90/10
Tin Plated

Solderability: Per MIL-STD-202 Method 208

Packaging Tray: TY45x70-A

Application: For gull wing surface mounting of components and wound toroids up to .375 inches in diameter.



STM385-04

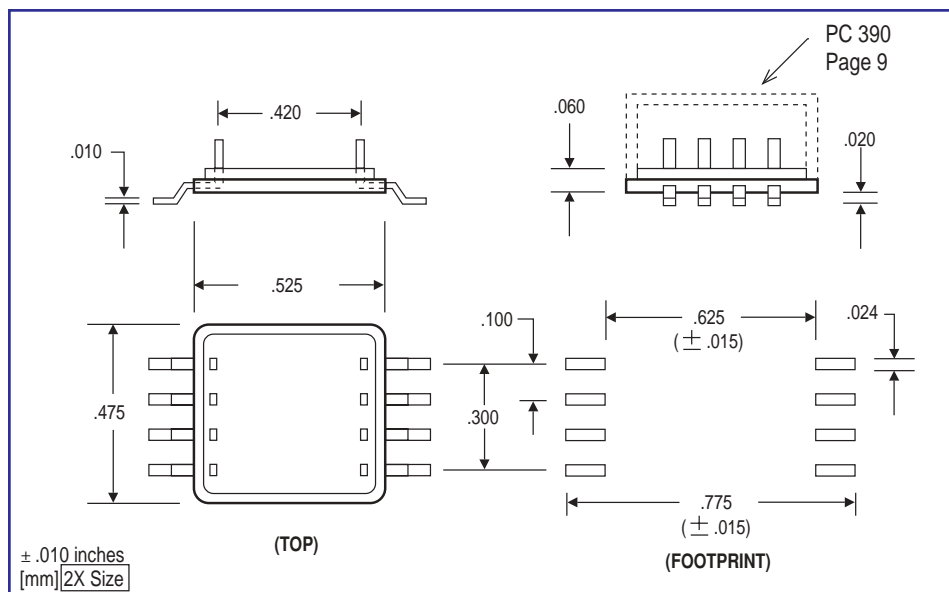
Material: Phenolic (Black)

Rating: UL94-VO

4 Terminals: Self Leading

Packaging Tray: TY74x77-A

Application: For surface mounting of toroids with wound diameters up to .385 inches. The toroid leads are tinned, and wrapped around the tabs on the toroid mount. The toroid leads then make a direct connection to the solderpaste on the printed circuit board pad during infrared solder reflow. Coplanarity is dependant on the quality of the tinned wire wrap on the tabs.



STM390-8

Material: Epoxy (Black)

Rating: UL 94-VO

8 Terminals: Alloy 42 .024 X .010
Lead Frame
90/10 Tin Plated.

Solderability: Per MIL-STD-202 Method 208

Packaging Tray: TY65x100-A

Application: For surface mounting of components and wound toroids up to .400 inches in diameter. Potting cup PC390 may be used to encapsulate the component and its connections. See page 9.

SURFACE MOUNTS

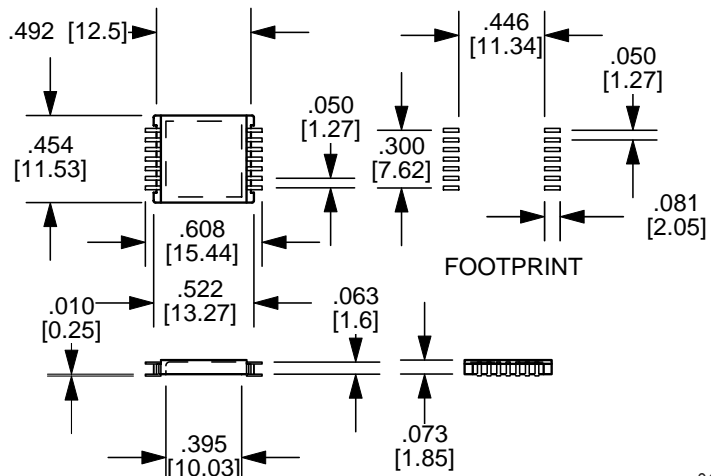
Phone (800) 694-8089 • Fax (714) 970-0800

SURFACE MOUNT

STM395-14

Material: Diallyl Phthalate (Black)
Rating: UL94-VO
14 Terminals: Alloy 42 Leadframe 90/10 Tin Plate
Solderability: Per MIL-STD-202 Method 208
Packaging Tray: TY74x77-A

Application: "U" shaped surface mount terminals with an inverted cup design. Component leads are terminated to the terminal extensions. Ideal for automatic pick and place of low profile wound toroids and components up to .395 inches in diameter.



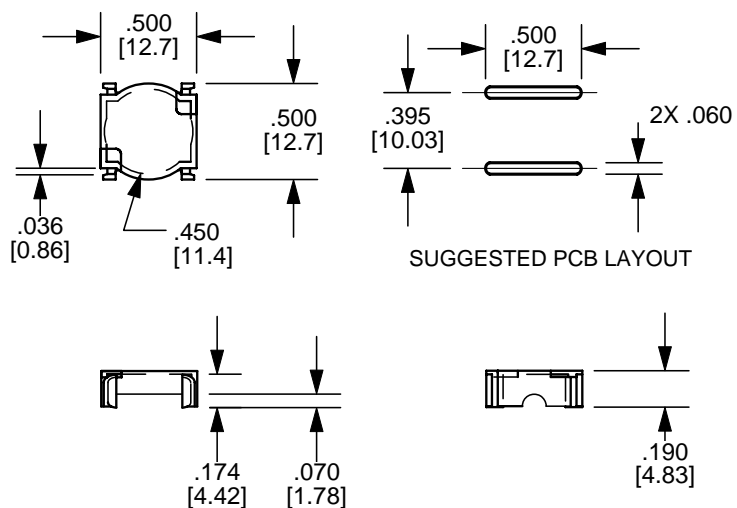
± .010 inches
[mm] Actual Size

STM40LC-02

Material: LCP (Black)
Rating: UL94-VO
2 Terminals: Self Leading
Packaging Tray: TY74x77-A

Application: For self leading of surface mount low current inductors using wound toroids up to .450 inches in diameter. The toroids winding leads are used to make the surface mount connection to the PCB. The wound toroids leads are held in position by the slots and channels incorporated in the mounting case.

This popular "Bobcat" concept is the patented property of **Pulse**, San Diego, CA.



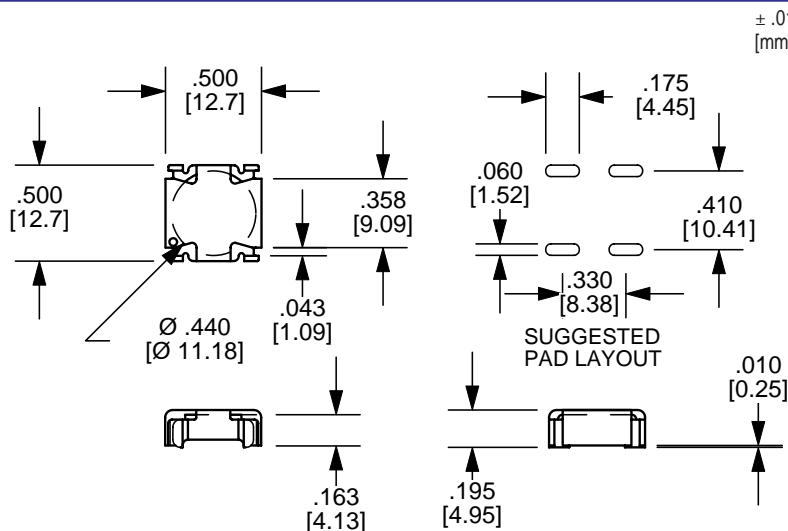
± .010 inches
[mm] Actual Size

STM40LCC-04

Material: LCP (Black)
Rating: UL94-VO
4 Terminals: Self Leading
Packaging Tray: TY74x77-A

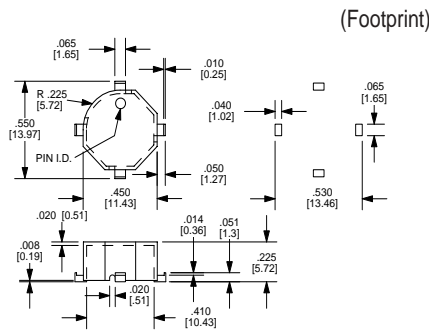
Application: For self leading of surface mount low current coupled inductors and transformers using wound toroids up to .450 inches in diameter. The toroids winding leads are used to make the surface mount connection to the PCB. The wound toroids leads are held in position by the slots and channels incorporated in the mounting case.

This popular "Polecat" concept is the patented property of **Pulse**, San Diego, CA.



± .010 inches
[mm] Actual Size

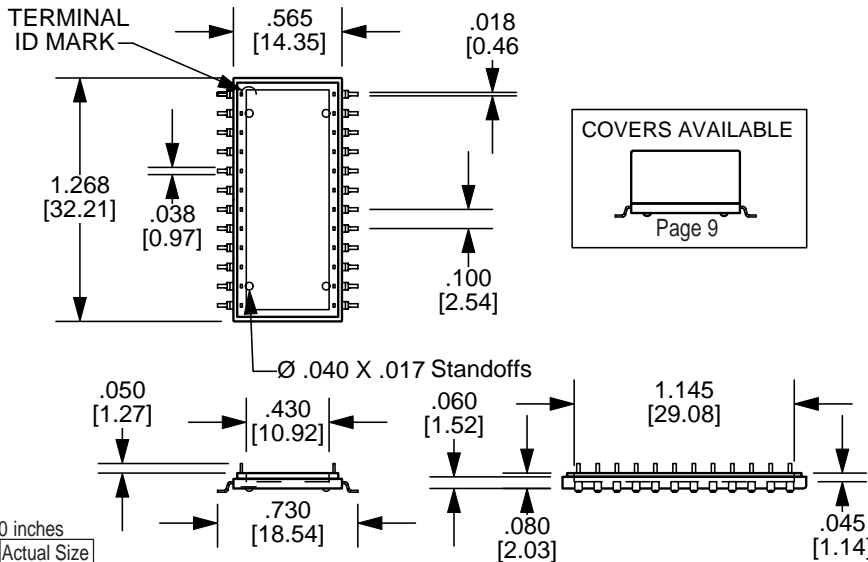
STM403-04/190



± .010 inches
[mm] Actual Size

Material: LCP (Natural)
Rating: UL94-VO
4 Terminals: Self Leading
Packaging Tray: TY50x50-A
Application: For surface mounting of toroids with wound diameters up to .403 inches, and .190 inches in height. The toroid leads are tinned, and wrapped around the tabs on the toroid mount. The toroid leads then make a direct connection to the solderpaste on the printed circuit board pad during Infrared solder reflow. Coplanarity is dependant on the quality of the tinned wire wrap on the tabs. Ideal for automatic pick and place.

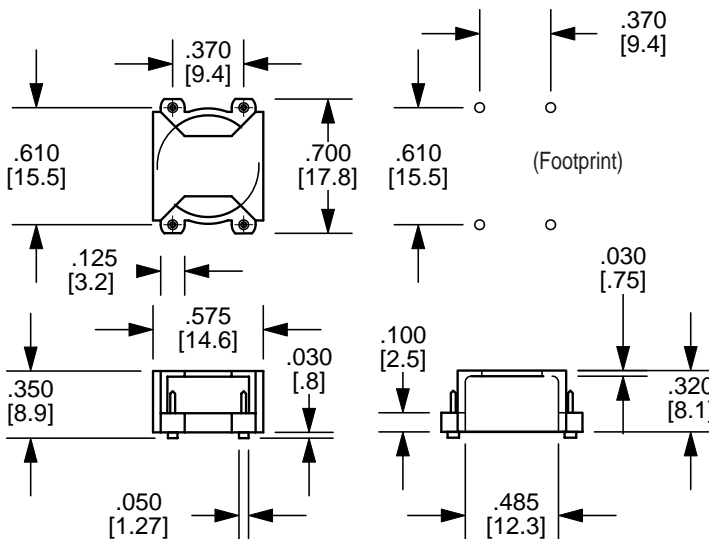
SMD430-24



± .010 inches
[mm] Actual Size

Material: Diallyl Phthalate (Black)
Rating: UL94-VO
24 Terminals: Alloy 42 Leadframe 90/10 Tin Plate
Solderability: Per MIL-STD-202 Method 208
Packaging Tray: TY36x82-A
Application: Gull wing surface mount. Suitable for wound toroids up to .430 inches in diameter. This product is shipped from Lodestone Pacific in anti-static shipping tubes. Encapsulation covers are available and sold separately. See page 9.

NEW



± .010 inches
[mm] Actual Size

STM44-4

Material: Ryton R4 (Black)
Rating: UL 94-VO
4 Terminals: Brass, Nickel Flash 100% Tin Plated
Solderability: Per MIL-STD-202 Method 208
Packaging Tray: TY74x77-A
Application: For low profile horizontal surface mounting of wound toroids up to .485 inches in diameter. "Lunar Lander" terminal design improves coplanarity, terminal durability during handling and transit, and uses less circuit board real estate. Ideal for automatic pick and place.

SURFACE MOUNTS

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SURFACE MOUNT

SLED SERIES

Material: LCP (Black)
Zytel FR50 (Natural)

Rating: UL 94-VO

2 Terminals: Brass Alloy or
Phos. Bronze
90/10 Tin Plated

Solderability: Per MIL-STD-202
Method 208

Packaging Tray:

STM302-2 TY50x50-A
STM372-2 TY50x50-A
STM502-2 TY74x77-A
STM602-2 TY74x77-A

Application: For surface mounting of inductors up to .600 inches in diameter. Designed to facilitate termination, to be robust during handling, and easy to pick and place.

BOTTOM

(FOOTPRINT)

± .010 inches
[mm] [Not to Scale]

| PART NO. | MAT'L | HT. | DEPTH | DIA. | A | B | D | W | X | Y |
|------------|-------|--------------|-------------|--------------|--------------|--------------|-------------|-------------|--------------|--------------|
| STM302-2 | LCP | .245 [6.22] | .120 [3.04] | .270 [6.85] | .395 [10.03] | .340 [8.63] | .190 [4.82] | .025 [0.63] | .300 [7.62] | .245 [6.22] |
| STM302-2/A | Zytel | .245 [6.22] | .120 [3.04] | .270 [6.85] | .395 [10.03] | .340 [8.63] | .190 [4.82] | .025 [0.63] | .300 [7.62] | .245 [6.22] |
| STM372-2 | LCP | .320 [8.12] | .170 [4.31] | .370 [9.39] | .475 [12.06] | .420 [10.66] | .270 [6.85] | .025 [0.63] | .375 [9.52] | .320 [8.12] |
| STM502-2 | LCP | .385 [9.77] | .180 [4.57] | .445 [11.30] | .620 [15.74] | .520 [13.20] | .315 [8.00] | .045 [1.14] | .500 [12.70] | .400 [10.16] |
| STM602-2 | LCP | .395 [10.03] | .200 [5.08] | .530 [13.46] | .725 [18.41] | .570 [14.47] | .325 [8.25] | .045 [1.14] | .600 [15.24] | .450 [11.43] |

STM LC SERIES

Material: Ryton R4
(Black)

Rating: UL 94-VO

2 Terminals: Self Leading

Application: The STM LC Series is for self leading surface mount low current inductors. The series will accommodate wound toroidal cores from .200 up to .610 in diameter and uses the toroid's winding leads to surface mount the toroid and case to the printed circuit board. The wound toroid's leads are held in position by the slots and channels incorporated in the mounting case.

This product and concept is the patented property of **Pulse Engineering Inc.**, San Diego, CA.

TOP

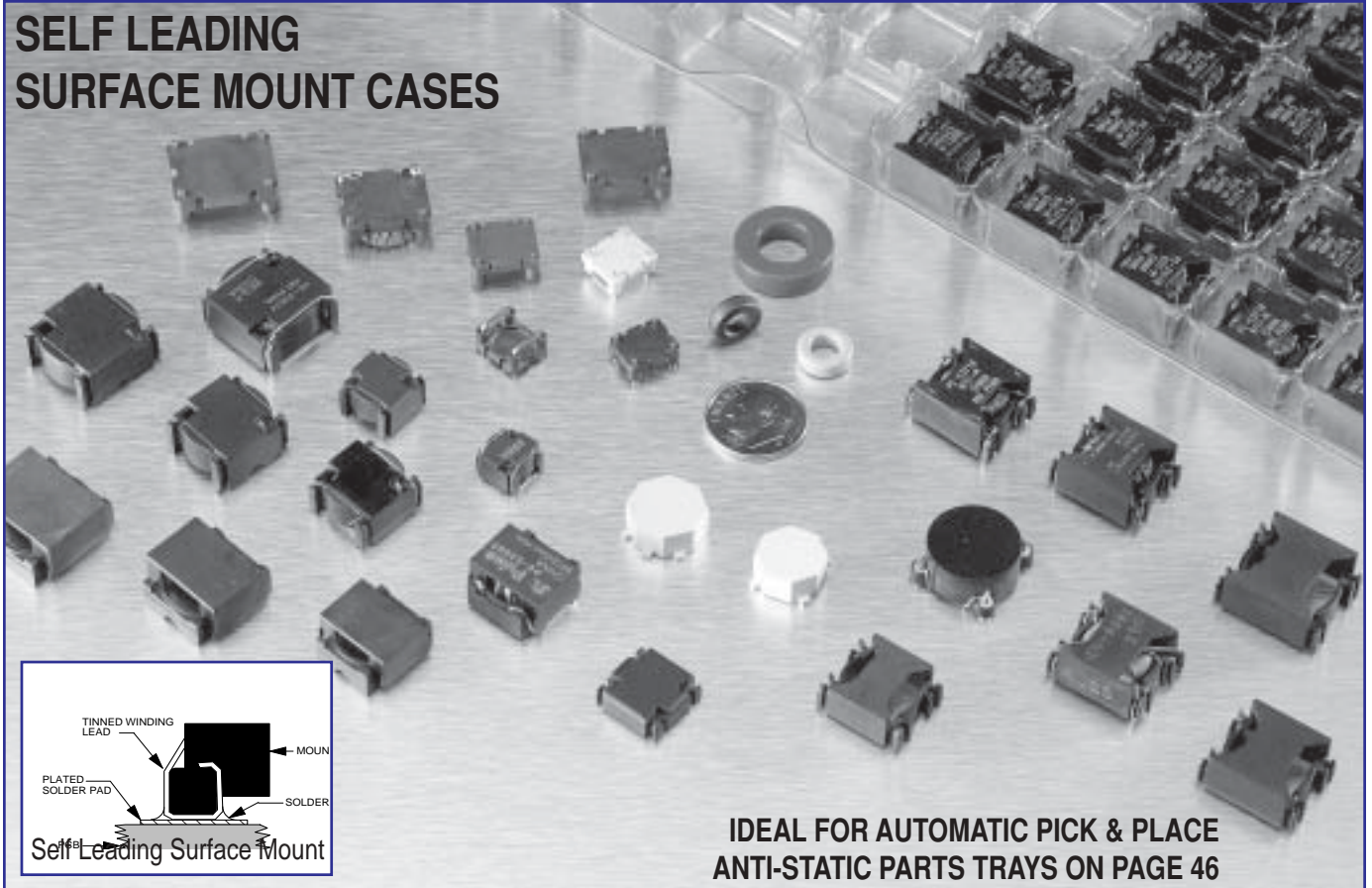
SUGGESTED PCB LAYOUT

± .010 inches
[mm] [Not to Scale]

| PART NO. | TRAY NO. |
|------------|-----------|
| STM20LC-02 | TY50x50-A |
| STM30LC-02 | TY50x50-A |
| STM37LC-02 | TY74x77-A |
| STM44LC-02 | TY74x77-A |
| STM50LC-02 | TY74x77-A |

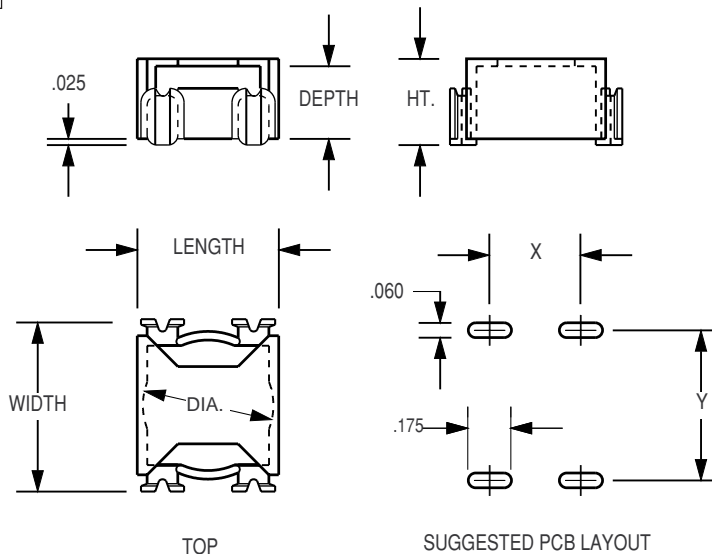
| PART NO. | LENGTH | WIDTH | HT. | DIA. | DEPTH | S | SLOT | X | Y | RECOMMENDED WIRE SIZE |
|------------|--------------|--------------|-------------|--------------|-------------|-------------|-------------|--------------|--------------|--------------------------|
| STM20LC-02 | .330 [8.38] | .330 [8.38] | .240 [6.09] | .270 [6.85] | .135 [3.42] | .080 [2.03] | .024 [0.60] | .300 [7.62] | .270 [6.85] | #32 (.009) to #22 (.027) |
| STM30LC-02 | .425 [10.79] | .430 [10.92] | .310 [7.87] | .375 [9.52] | .175 [4.44] | .100 [2.54] | .036 [0.91] | .400 [10.16] | .360 [9.14] | #32 (.009) to #20 (.034) |
| STM37LC-02 | .545 [13.84] | .550 [13.97] | .310 [7.87] | .490 [12.44] | .175 [4.44] | .100 [2.54] | .036 [0.91] | .520 [13.20] | .460 [11.68] | #32 (.009) to #20 (.034) |
| STM44LC-02 | .575 [14.60] | .600 [15.24] | .350 [8.89] | .530 [13.46] | .210 [5.33] | .100 [2.54] | .036 [0.91] | .550 [13.97] | .510 [12.95] | #30 (.011) to #20 (.034) |
| STM50LC-02 | .650 [16.51] | .680 [17.27] | .350 [8.89] | .610 [15.49] | .210 [5.33] | .100 [2.54] | .036 [0.91] | .620 [15.74] | .590 [14.98] | #30 (.011) to #20 (.034) |

SELF LEADING SURFACE MOUNT CASES



IDEAL FOR AUTOMATIC PICK & PLACE
ANTI-STATIC PARTS TRAYS ON PAGE 46

± .010 inches
[mm] Not to Scale



STM LCC SERIES

Material: Ryton R4 (Black)
Rating: UL 94-VO
4 Terminals: Self Leading

Application: The STM LCC Series is for self leading surface mount low current coupled inductors and transformers. The series will accommodate wound toroidal cores from .485 up to .605 in diameter and uses the toroid's winding leads to surface mount the toroid and case to the printed circuit board. The wound toroids leads are held in position by the slots and channels incorporated in the mounting case.

This product and concept is the patented property of **Pulse Engineering Inc.**, San Diego, CA.

| PART NO. | TRAY NO. |
|-------------|-----------|
| STM37LCC-04 | TY74x77-A |
| STM44LCC-04 | TY74x77-A |
| STM50LCC-04 | TY74x77-A |

| PART NO. | LENGTH | WIDTH | HT. | DIA. | DEPTH | X | Y | RECOMMENDED WIRE SIZE |
|-------------|--------------|--------------|-------------|--------------|-------------|--------------|--------------|---------------------------------|
| STM37LCC-04 | .550 [13.97] | .630 [16.00] | .310 [7.87] | .485 [12.31] | .255 [6.47] | .340 [8.63] | .530 [13.46] | # 32 (.009) to # 20 (.034) AWG. |
| STM44LCC-04 | .575 [14.60] | .700 [17.78] | .350 [8.89] | .530 [13.46] | .295 [7.49] | .370 [9.39] | .610 [15.49] | # 32 (.009) to # 20 (.034) AWG. |
| STM50LCC-04 | .650 [16.51] | .750 [19.05] | .350 [8.89] | .605 [15.36] | .295 [7.49] | .445 [11.30] | .660 [16.76] | # 32 (.009) to # 20 (.034) AWG. |

SURFACE MOUNTS

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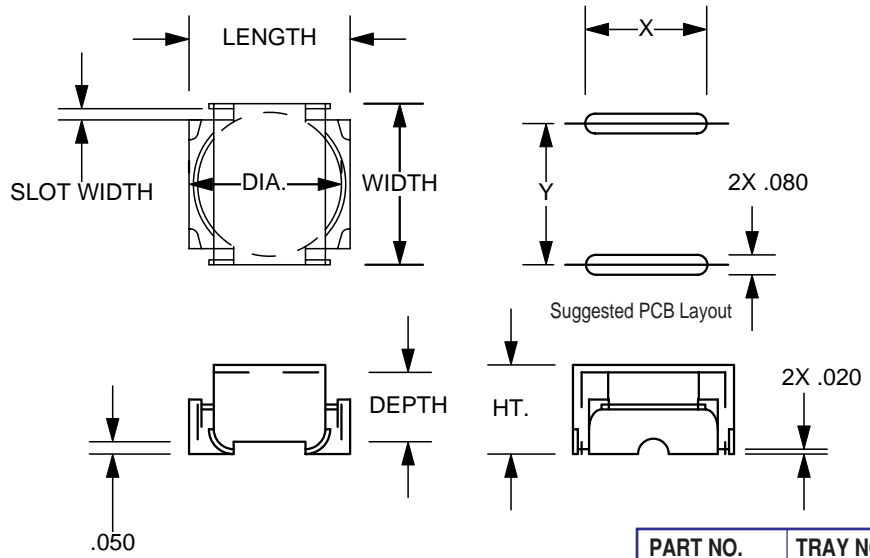
SURFACE MOUNT

STM HC SERIES

Material: Ryton R4 (Black)
Rating: UL 94-VO
2 Terminals: Self Leading

Application: The STM HC Series is for self leading surface mount low current inductors. The series will accommodate wound toroidal cores from .500 up to .840 in diameter and uses the toroid's winding leads to surface mount the toroid and case to the printed circuit board. The wound toroid's leads are held in position by the slots and channels incorporated in the mounting case.

This product and concept is the patented property of **Pulse Engineering Inc.**, San Diego, CA.



| PART NO. | TRAY NO. |
|------------|-------------|
| STM37HC-02 | TY74x77-A |
| STM44HC-02 | TY74x77-A |
| STM50HC-02 | TY74x77-A |
| STM68HC-02 | TY122x140-A |

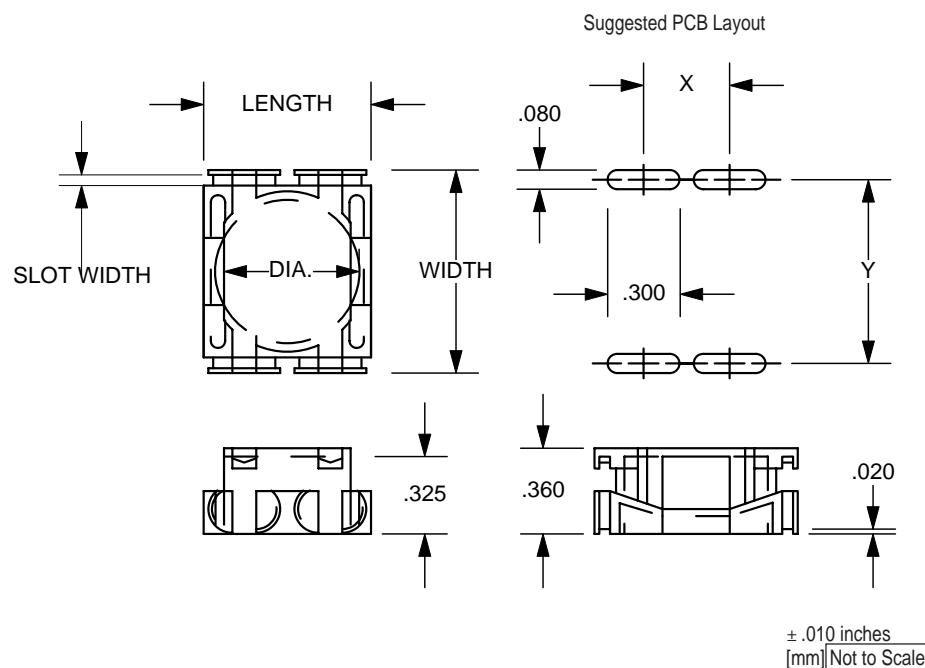
| PART NO. | LENGTH | WIDTH | HT. | DIA. | DEPTH | SLOT WIDTH | X | Y | WIRE SIZE |
|------------|-------------|-------------|------------|-------------|------------|------------|-------------|-------------|------------|
| STM37HC-02 | .600 [15.2] | .585 [14.8] | .320 [8.1] | .500 [12.7] | .240 [6.1] | .045 [1.1] | .440 [11.2] | .500 [12.7] | #22 to #18 |
| STM44HC-02 | .650 [16.5] | .650 [16.5] | .360 [9.1] | .580 [14.7] | .280 [7.1] | .045 [1.1] | .490 [12.4] | .570 [14.5] | #22 to #18 |
| STM50HC-02 | .720 [18.3] | .720 [18.3] | .360 [9.1] | .650 [16.4] | .280 [7.1] | .045 [1.1] | .560 [14.2] | .640 [16.2] | #22 to #18 |
| STM68HC-02 | .920 [23.4] | .920 [23.4] | .355 [9.0] | .840 [21.3] | .275 [7.0] | .055 [1.4] | .700 [17.8] | .830 [21.1] | #20 to #16 |

STM HCC SERIES

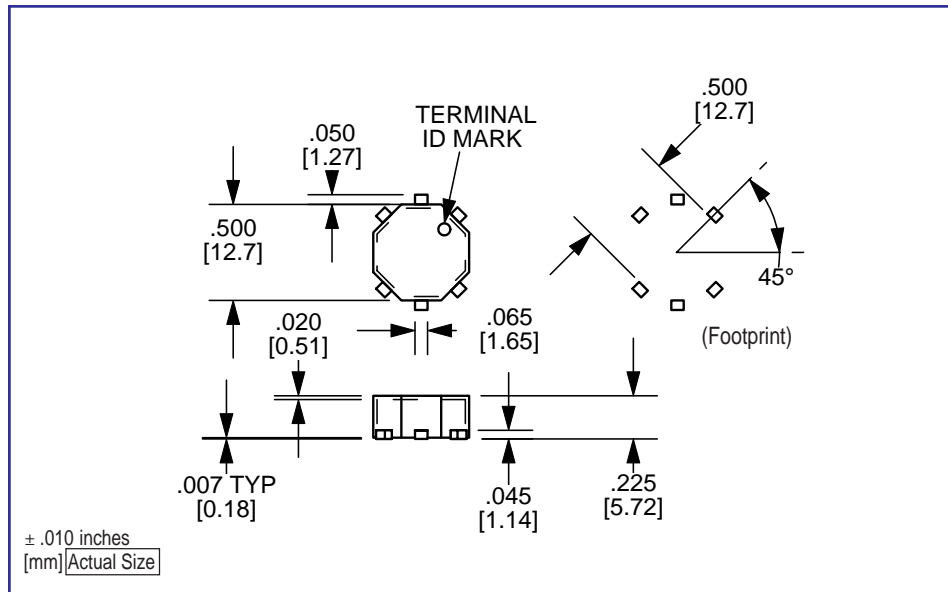
Material: Ryton R4 (Black)
Rating: UL 94-VO
4 Terminals: Self Leading

Application: The STM HCC Series is for self leading surface mount low current coupled inductors and transformers. The series will accommodate wound toroidal cores from .600 up to .880 in diameter and uses the toroid's winding leads to surface mount the toroid and case to the printed circuit board. The wound toroids leads are held in position by the slots and channels incorporated in the mounting case.

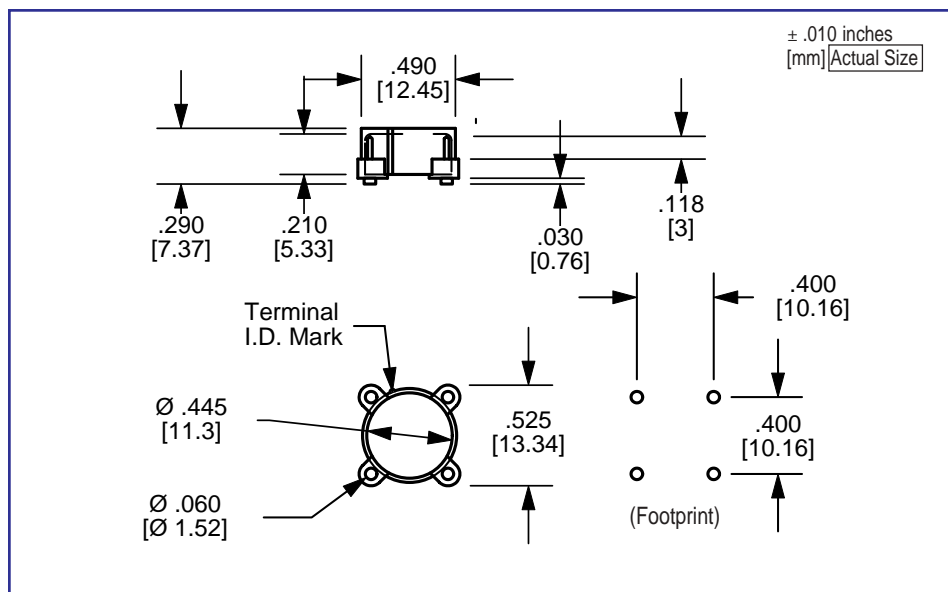
This product and concept is the patented property of **Pulse Engineering Inc.**, San Diego, CA.



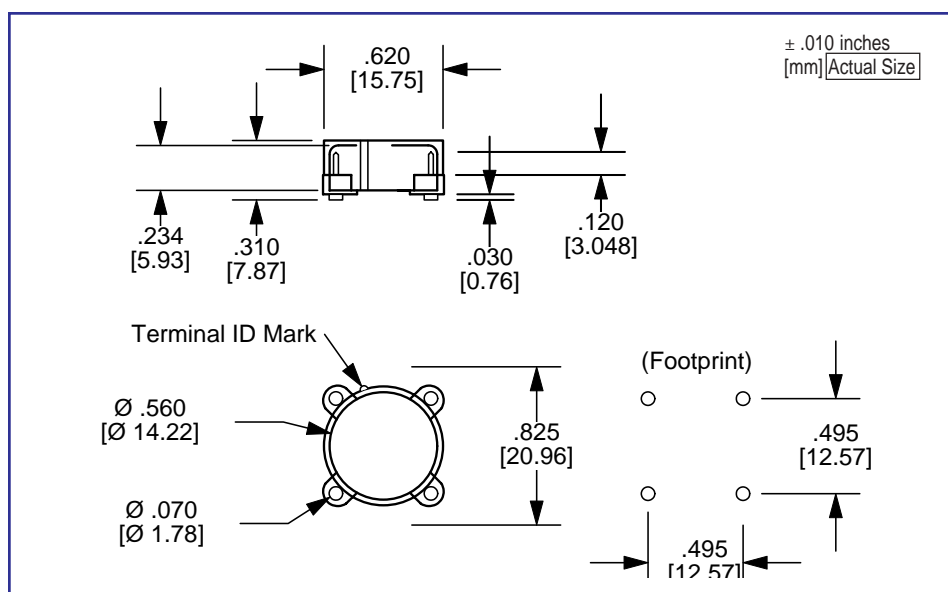
| PART NO. | LENGTH | WIDTH | DIA. | X | Y | SLOT WIDTH | WIRE SIZE | PACKAGING TRAY |
|-------------|-------------|--------------|-------------|-------------|--------------|------------|------------|----------------|
| STM44HCC-04 | .700 [17.7] | .850 [21.6] | .600 [15.2] | .360 [9.1] | .770 [19.6] | .045 [1.0] | #22 to #18 | TY85x116-A |
| STM50HCC-04 | .780 [19.8] | .895 [22.7] | .680 [17.3] | .440 [11.2] | .810 [20.6] | .045 [1.0] | #22 to #18 | TY85x116-A |
| STM68HCC-04 | .980 [24.9] | 1.090 [27.7] | .880 [22.3] | .620 [15.7] | 1.010 [25.6] | .055 [1.4] | #20 to #16 | TY122x140-A |



| STM453-06/195 | |
|------------------------|--|
| Material: | LCP (Natural) |
| Rating: | UL94-VO |
| 6 Terminals: | Self Leading |
| Packaging Tray: | TY74x77-A |
| Application: | For surface mounting of toroids with wound diameters up to .453 inches and .195 inches in height. The toroid leads are tinned, and wrapped around the tabs on the toroid mount. The toroid leads then make a direct connection to the solderpaste on the printed circuit board pad during Infrared solder reflow. Coplanarity is dependant on the quality of the tinned wire wrap on the tabs. Ideal for automatic pick and place. |



| STM460-4 | |
|------------------------|--|
| Material: | Diallyl Phthalate (Black) |
| Rating: | UL 94-VO |
| 4 Terminals: | Brass, Nickel Flash 100% Tin Plated |
| Solderability: | Per MIL-STD-202 Method 208 |
| Packaging Tray: | TY74x77-A |
| Application: | For low profile horizontal surface mounting of wound toroids up to .445 inches in diameter. "Lunar Lander" terminal design improves coplanarity, terminal durability during handling and transit, and uses less circuit board real estate. Ideal for automatic pick and place. |



| STM560-4 | |
|------------------------|--|
| Material: | Diallyl Phthalate (Black) |
| Rating: | UL 94-VO |
| 4 Terminals: | Brass, Nickel Flash 100% Tin Plated |
| Solderability: | Per MIL-STD-202 Method 208 |
| Packaging Tray: | TY74x77-A |
| Application: | For low profile horizontal surface mounting of wound toroids up to .560 inches in diameter. "Lunar Lander" terminal design improves coplanarity, terminal durability during handling and transit, and uses less circuit board real estate. Ideal for automatic pick and place. |

SURFACE MOUNTS

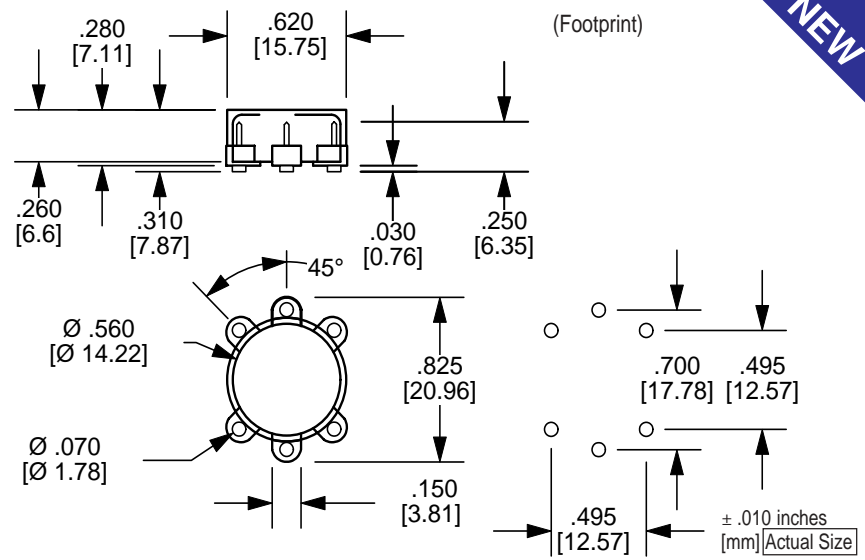
Phone (800) 694-8089 • Fax (714) 970-0800

SURFACE MOUNT

STM560-6

Material: Diallyl Phthalate (Black)
Rating: UL 94-VO
6 Terminals: Brass, Nickel Flash 100% Tin Plated
Solderability: Per MIL-STD-202 Method 208
Packaging Tray: TY74x77-A

Application: For low profile horizontal surface mounting of wound toroids up to .560 inches in diameter. "Lunar Lander" terminal design improves coplanarity, terminal durability during handling and transit, and uses less circuit board real estate. Ideal for automatic pick and place.

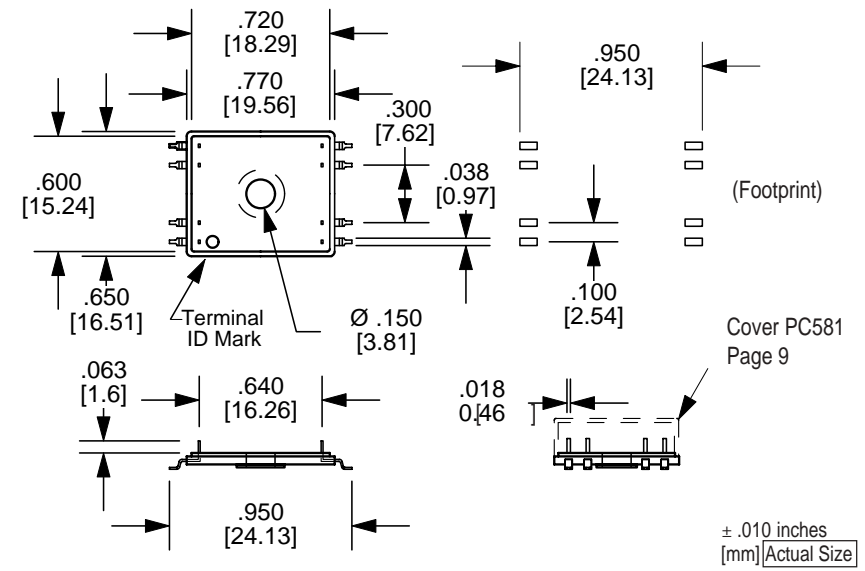


NEW

STM581-8

Material: Diallyl Phthalate (Black)
Rating: UL94-VO
8 Terminals: Alloy 42 .024 x .010 Leadframe 90/10 Tin Plate
Solderability: Per MIL-STD-202 Method 208
Packaging Tray: TY85x116-A

Application: For surface mount of components, pot cores and wound toroids up to .580 inches in diameter. Potting cup PC581 may be used to encapsulate the component and its connections. See page 9.

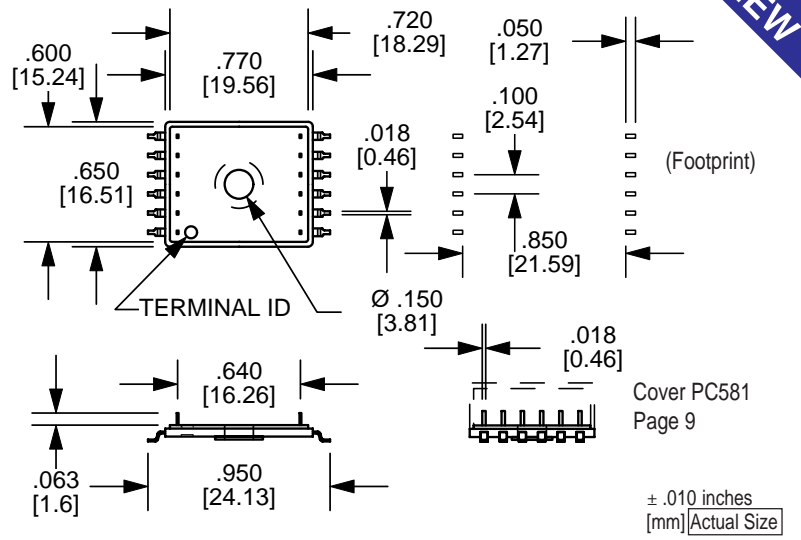


Cover PC581 Page 9

STM581-12

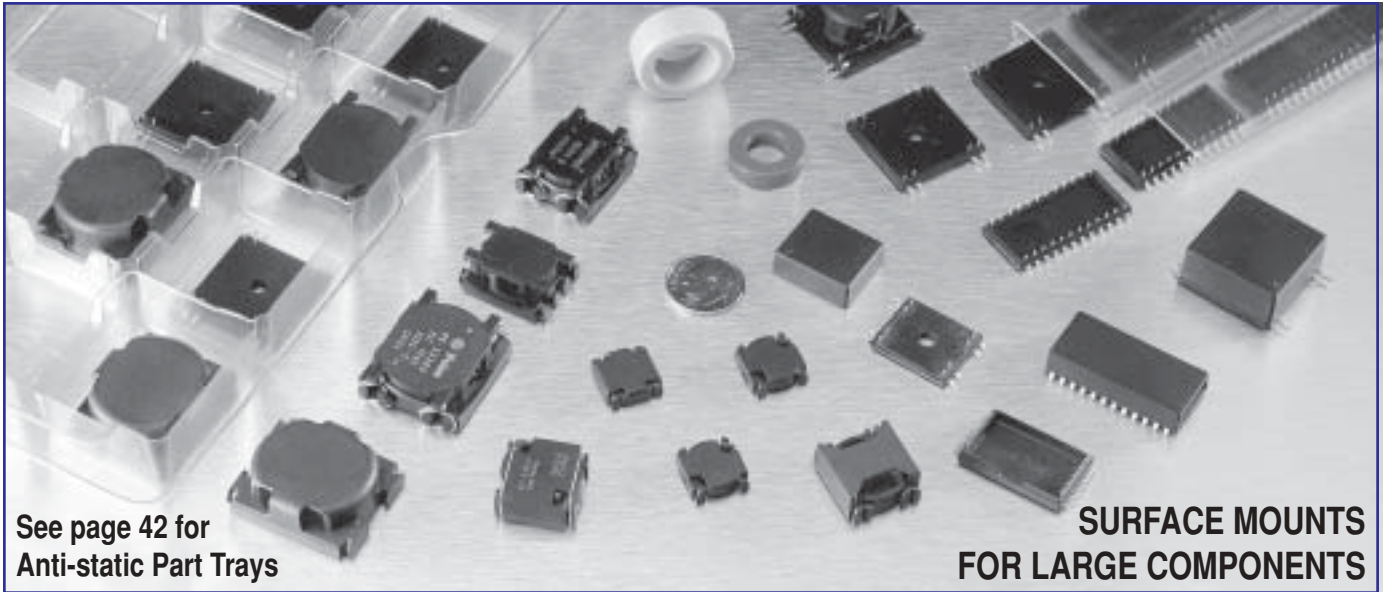
Material: Diallyl Phthalate (Black)
Rating: UL94-VO
12 Terminals: Alloy 42 .024 x .010 Leadframe 90/10 Tin Plate
Solderability: Per MIL-STD-202 Method 208
Packaging Tray: TY85x116-A

Application: For surface mount of components, pot cores and wound toroids up to .580 inches in diameter. Potting cup PC581 may be used to encapsulate the component and its connections. See page 9.



NEW

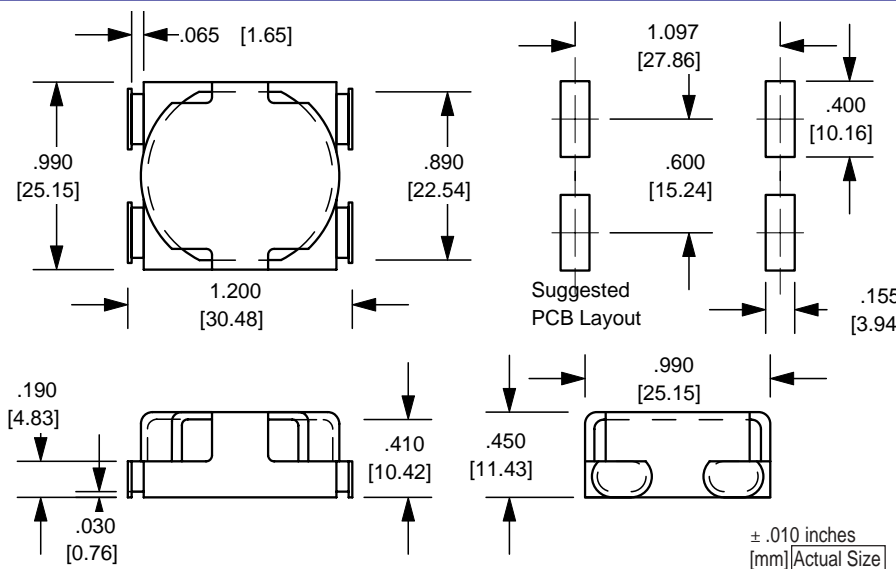
Cover PC581 Page 9



See page 42 for
Anti-static Part Trays

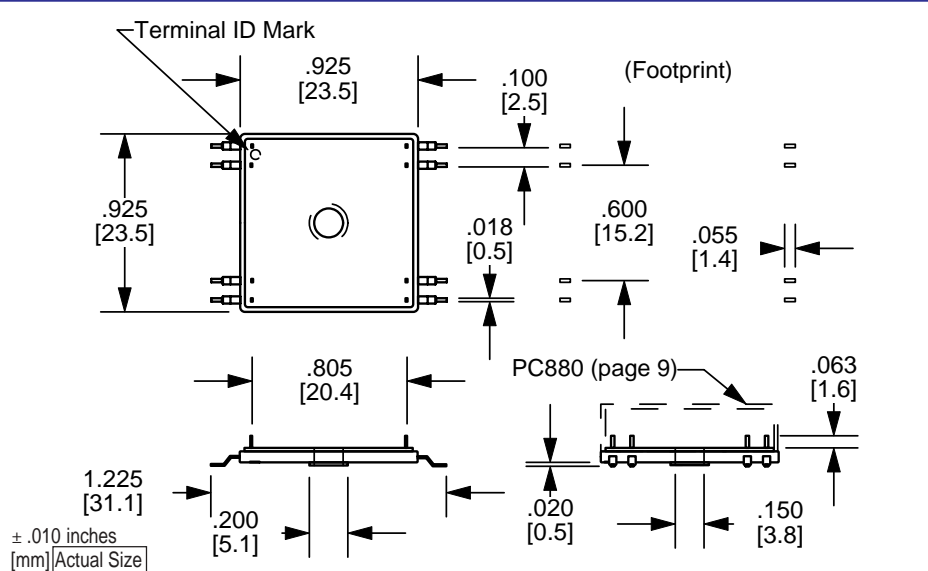
**SURFACE MOUNTS
FOR LARGE COMPONENTS**

STM80HCC-04



Material: Ryton R4 (Black)
Rating: UL94-VO
4 Terminals: Self Leading
Packaging Tray: TY122x140-A
Application: For self leading of surface mount high current coupled inductors and transformers using wound toroids up to .890 inches in diameter. The toroids winding leads are used to make the surface mount connection to the PCB. The wound toroids leads are held in position by the slots and channels incorporated in the mounting case.
 This popular "Bigfoot" concept is the patented property of **Pulse**, San Diego, CA.

STM880-8



Material: Dialyl Phthalate (Black)
Rating: UL 94-VO
8 Terminals: Alloy 42 Lead Frame 90/10 Tin Plated
Solderability: Per MIL-STD-202 Method 208
Packaging Tray: TY122x140-A
Application: For surface mounting of components, pot cores and wound toroids up to .900 inches in diameter. Potting cup PC880 may be used to encapsulate the component and its connections. (See page 9.)

HORIZONTAL TOROID MOUNTS

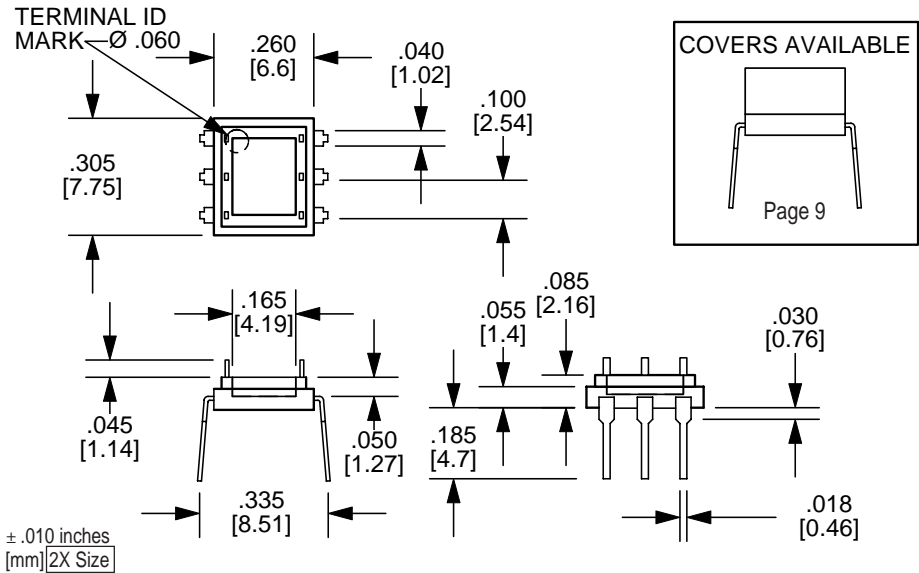
Phone (800) 694-8089 • Fax (714) 970-0800

HORIZONTAL MOUNTS

DIP165-6

Material: Diallyl Phthalate (Black)
Rating: UL94-VO
6 Terminals: Alloy 42 Leadframe 90/10 Tin Plate
Solderability: Per MIL-STD-202 Method 208
Packaging Tray: TY50x50-A

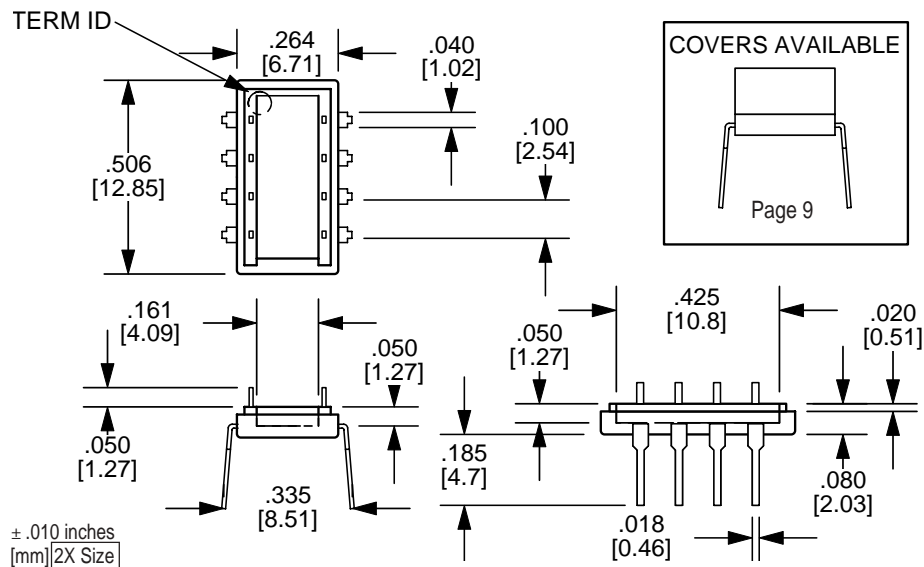
Application: Through hole version of the industry standard "dual-in-line" package. This product is shipped from Lodestone Pacific in anti-static shipping tubes. Encapsulation covers are available and sold separately. See page 9.



DIP165-8

Material: Diallyl Phthalate (Black)
Rating: UL94-VO
8 Terminals: Alloy 42 Leadframe 90/10 Tin Plate
Solderability: Per MIL-STD-202 Method 208
Packaging Tray: TY45x70-A

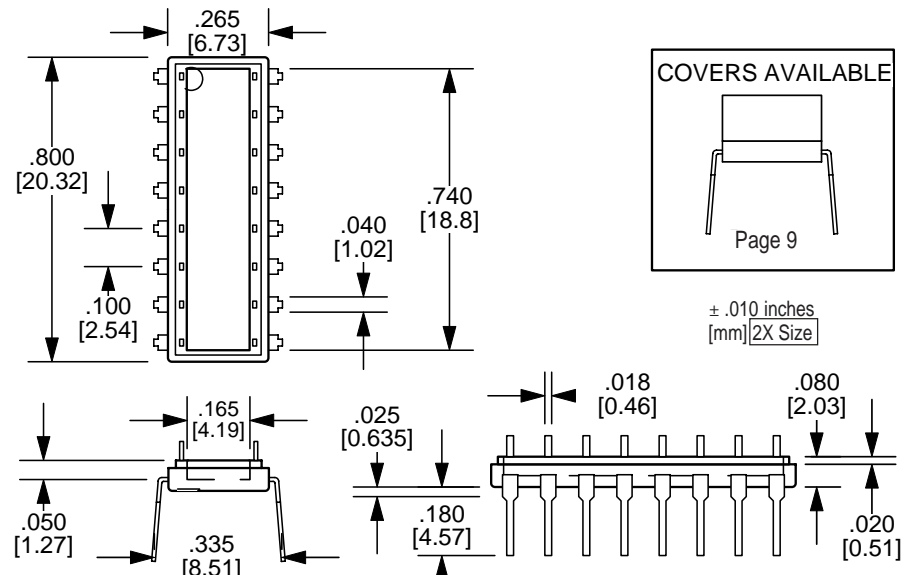
Application: Through hole version of the industry standard "dual-in-line" package. This product is shipped from Lodestone Pacific in anti-static shipping tubes. Encapsulation covers are available and sold separately. See page 9.

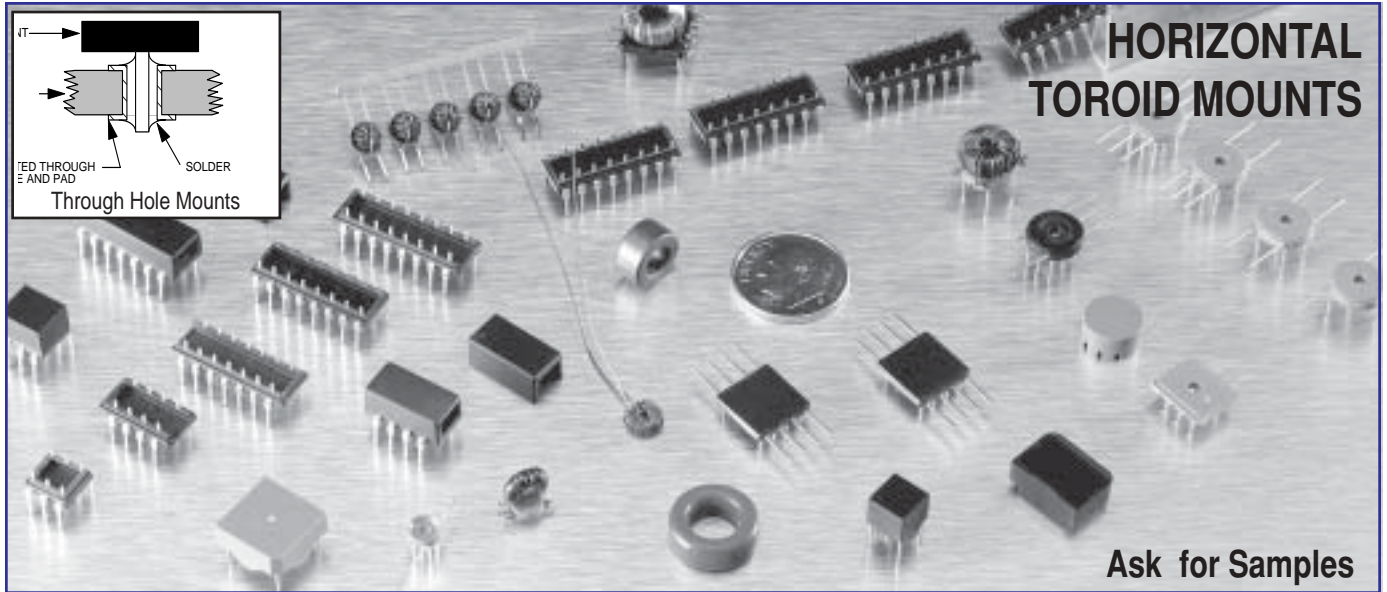


DIP165-16

Material: Diallyl Phthalate (Black)
Rating: UL94-VO
16 Terminals: Alloy 42 Leadframe 90/10 Tin Plate
Solderability: Per MIL-STD-202 Method 208
Packaging Tray: TY65x100-A

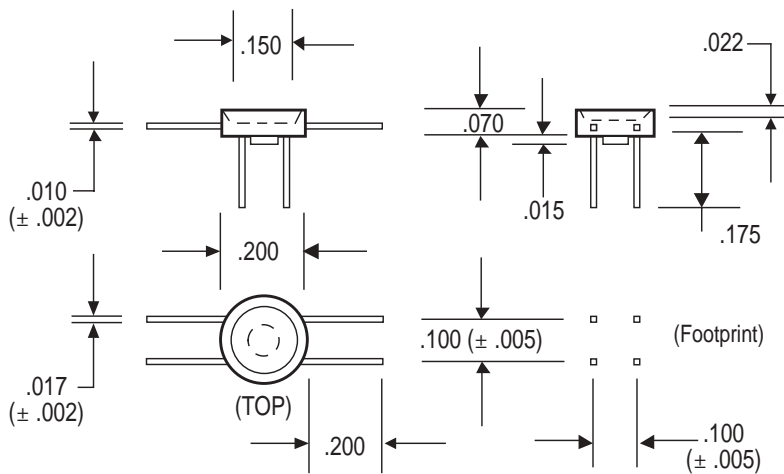
Application: Through hole version of the industry standard "dual-in-line" package. This product is shipped from Lodestone Pacific in anti-static shipping tubes. Encapsulation covers are available and sold separately. See page 9.





HORIZONTAL MOUNTS

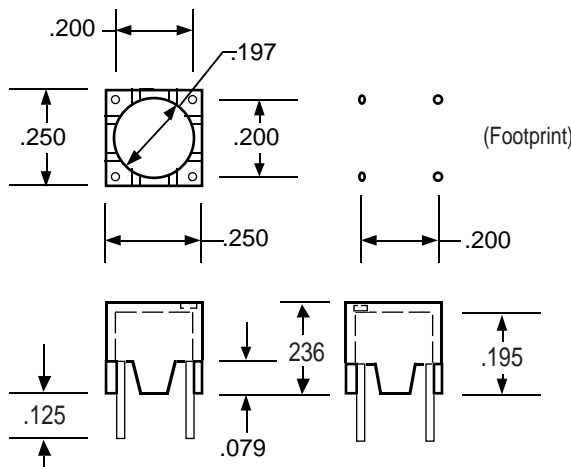
TM200-4



± .010 inches
[mm] 2X Size

- Material:** Diallyl Phthalate (Green)
- Rating:** UL 94-VO
- 4 Terminals:** Alloy 42 .017 x .010 Lead Frame 100% Tin Plated
- Solderability:** Per MIL-STD-202 Method 208
- Packaging Tray:** None
- Application:** For horizontal mounting of toroids with wound diameters from .050 to .180 inches. TM200-4/110 is also available with a .110 instead of .175 terminal length.

TM251-4



± .010 inches
[mm] 2X Size

- Material:** Diallyl Phthalate (Green)
- Rating:** UL 94-VO
- 4 Terminals:** Copper Wire .020 Dia. (#24 AWG) 100% Tin Plated
- Solderability:** Per MIL-STD-202 Method 208
- Packaging Tray:** TY50x50-A
- Application:** For encapsulating components and wound toroids up to .195 inches in diameter. Ideal for automatic pick & place.

HORIZONTAL TOROID MOUNTS

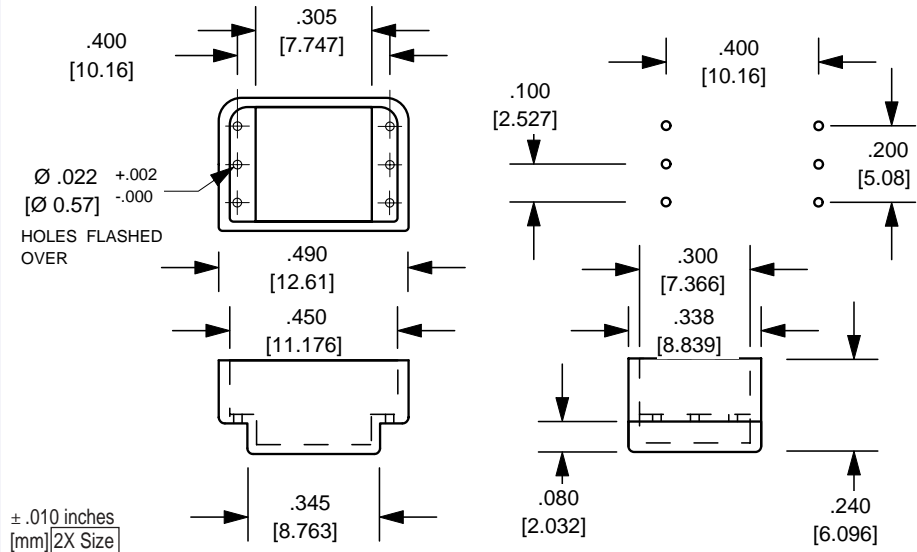
Phone (800) 694-8089 • Fax (714) 970-0800

HORIZONTAL MOUNTS

TM305-06

Material: Diallyl Phthalate (Black)
Rating: UL94-VO
6 Terminals: Self Leading
 Flashed over holes
 .022 in diameter
Solderability: Per MIL-STD-202
 Method 208
Packaging Tray: TY45x70-A

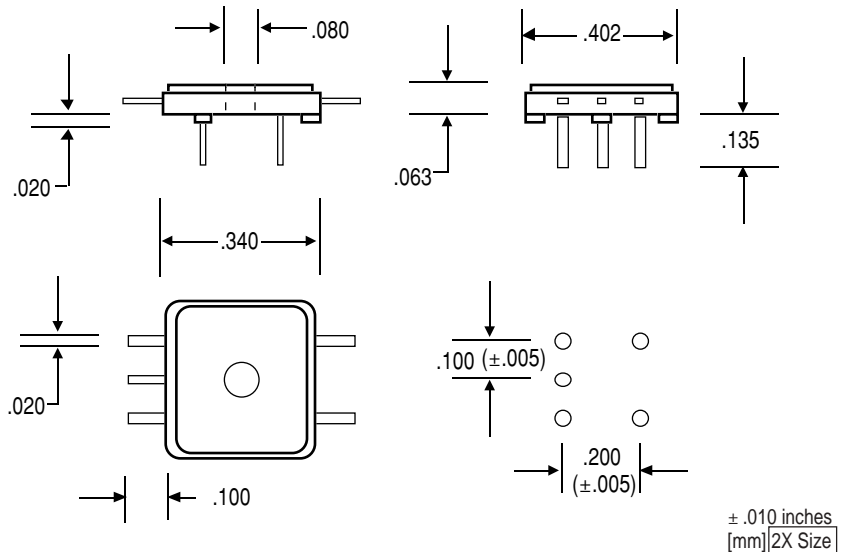
Application: Widely used "T" case or potting cup for mounting components and wound toroids up to .300 in diameter. This product is shipped from Lodestone Pacific in anti-static shipping tubes.



TM380-5

Molding: Diallyl Phthalate (Green)
Rating: UL 94-VO
5 Terminals: Alloy 42
 .020 X .010
 LeadFrame
 Tin Plated
Solderability: Per MIL-STD-202
 Method 208
Packaging Tray: TY45x70-A

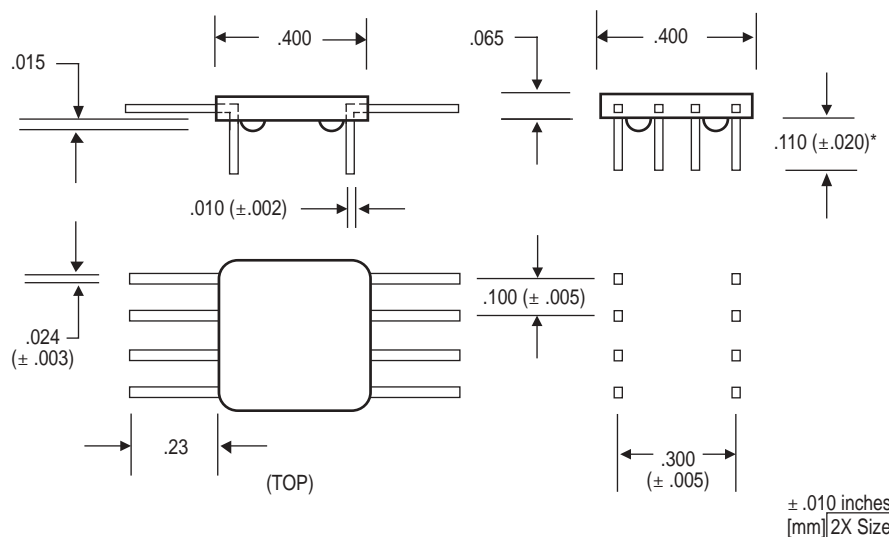
Application: For horizontal mounting of components and wound toroids up to .380 inches in diameter.

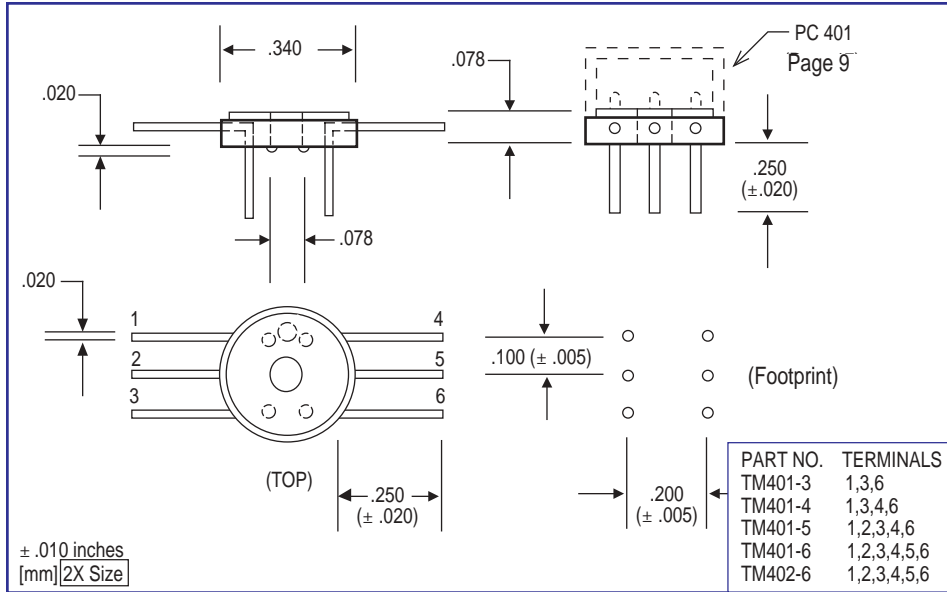


TM400-8

Material: Epoxy (Black)
Rating: UL 94-VO
8 Terminals: Alloy 42
 .024 x .010
 Lead Frame
 90/10 Tin Plated
Solderability: Per MIL-STD-202
 Method 208
Packaging Tray: TY65x100-A

Application: For horizontal mounting of components and wound toroids up to .400 inches in diameter.





TM401 SERIES

Material: DAP (Green)

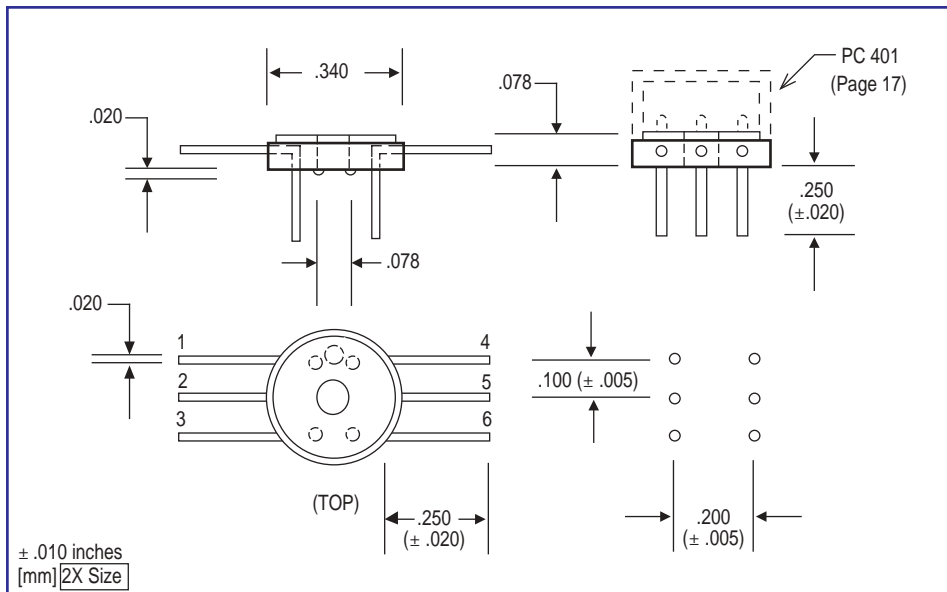
Rating: UL 94-VO

Terminals: Brass Wire, Nickel Flash
.020 Dia. (#24 AWG)
100% Tin Plated

Solderability: Per MIL-STD-202 Method 208

Packaging Tray: TY36x82-A

Application: This series is suitable for components and wound toroids up to .340 inches in diameter. Potting cup PC401 is available for encapsulation. See page 9. (sold separately).



TM402-6

Material: Ryton (Black)

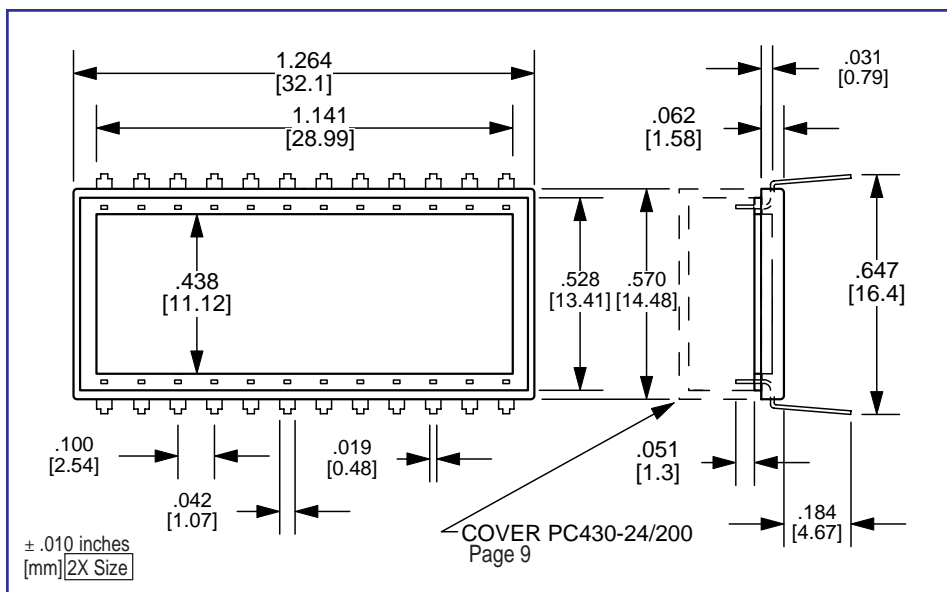
Rating: UL 94-VO

Terminals: Brass Wire, Nickel Flash
.020 Dia. (#24 AWG)
100% Tin Plated

Solderability: Per MIL-STD-202 Method 208

Packaging Tray: TY36x82-A

Application: This series is suitable for components and wound toroids up to .340 inches in diameter. Potting cup PC401 is available for encapsulation. See page 9. (sold separately).



DIP430-24

Material: Diallyl Phthalate (Black)

Rating: UL94-VO

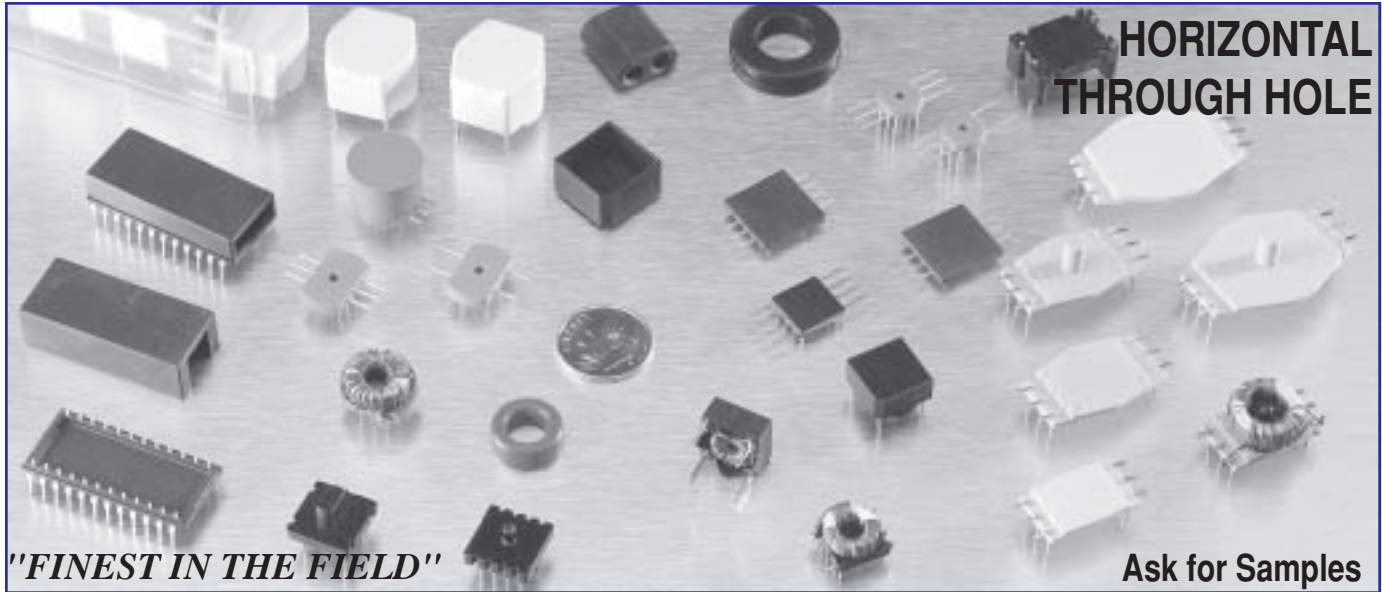
24 Terminals: Alloy 42 Leadframe
90/10 Tin Plate

Solderability: Per MIL-STD-202 Method 208

Packaging Tray: TY36x82-A

Application: Gull wing surface mount of components and wound toroids up to .430 inches in diameter. Encapsulation covers are available and sold separately. See page 9.

HORIZONTAL MOUNTS



TM450-6

Material: Rynite (Black)

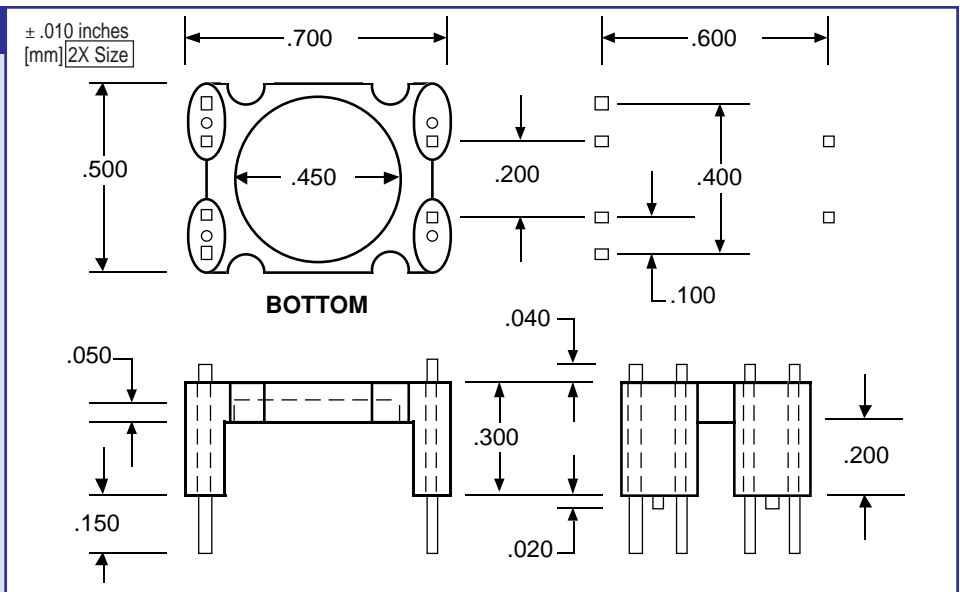
Rating: UL 94-VO

6 Terminals: Phos. Bronze
.025 x .025
90/10 Tin Plated

Solderability: Per MIL-STD-202 Method 208

Packaging Tray: TY74x77-A

Application: For low profile horizontal mounting of wound toroids up to .450 inches in diameter. Ideal for transformer applications.



TM470-4

Material: Phenolic (Black)

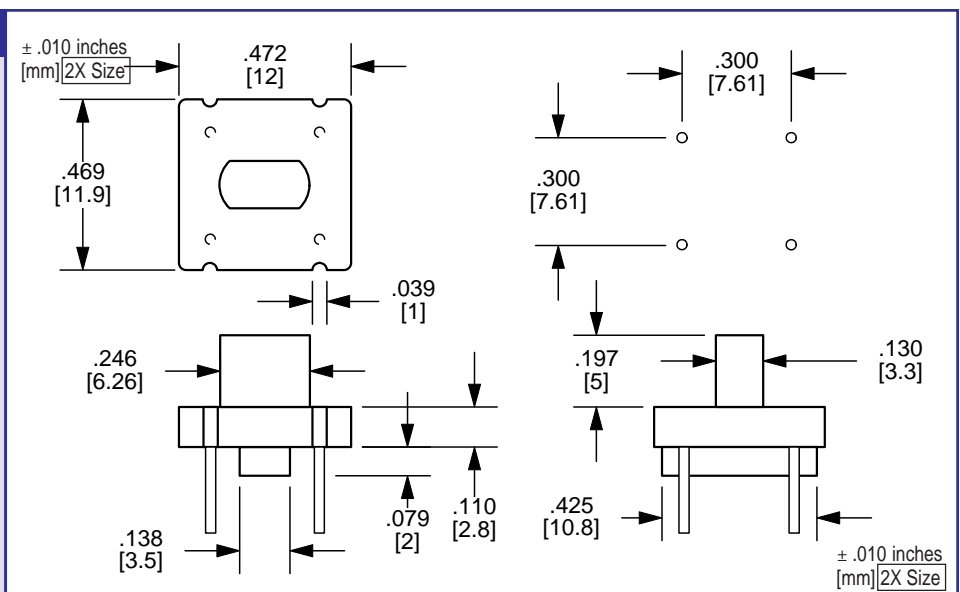
Rating: UL94-VO

6 Terminals: Copper Wire
90/10 Tin Plate

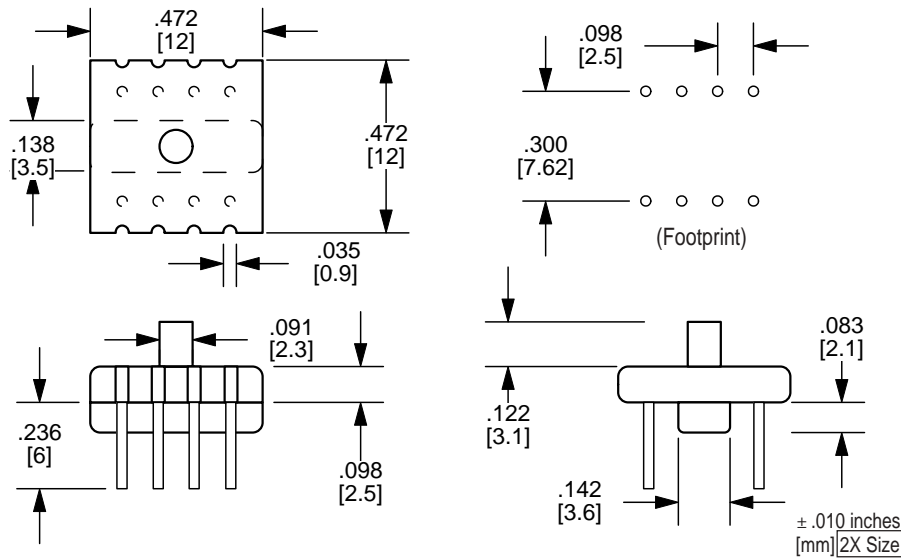
Solderability: Per MIL-STD-202 Method 208

Packaging Tray: TY50x50-A

Application: For horizontal mounting of transformer and inductor applications using a wound toroid up to .470 inches in diameter. The center post is ideal for winding separation in common mode applications.



TM475-8

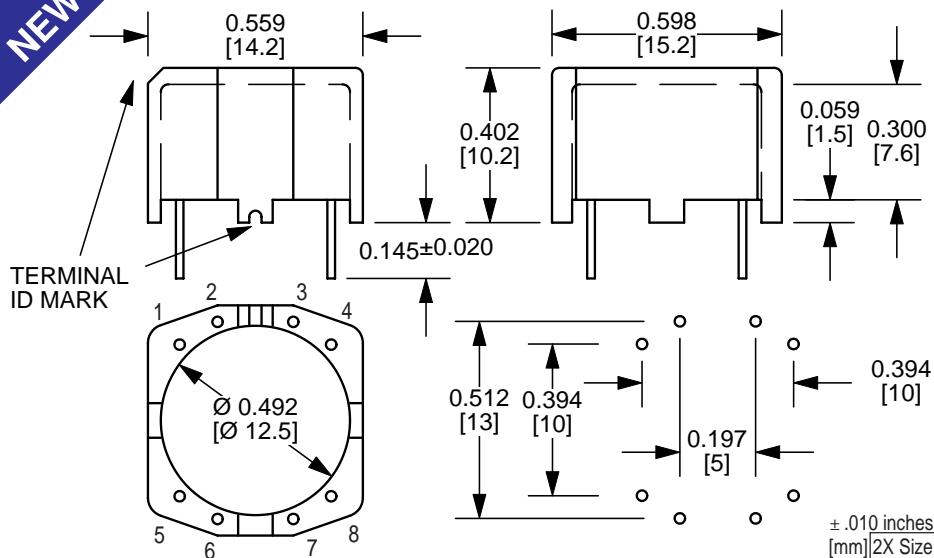


Material: Phenolic (Black)
Rating: UL94-VO
8 Terminals: Copper Wire 90/10 Tin Plate
Solderability: Per MIL-STD-202 Method 208
Packaging Tray: TY50x50-A
Application: For horizontal mounting of transformer and inductor applications using a wound toroid up to .475 inches in diameter.

HORIZONTAL MOUNTS

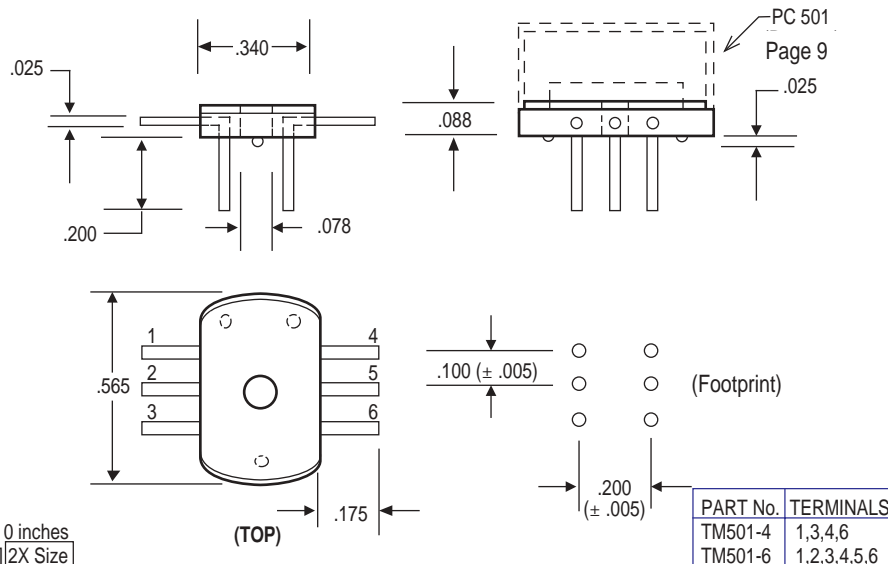
NEW

HTC490-4 or HTC490-8



Material: Nylon 6/6 (Natural)
Rating: UL 94-VO
4 or 8 Terminals: Copper / Zinc .026 x .026 60/40 Tin Plated
Solderability: Per MIL-STD-202 Method 208
Application: Enclosed horizontal mounting of toroidal inductors and transformers up to .492 inches in diameter. Ideal for applications requiring potting, part number marking and automatic pick and place. *8 terminals are available. Standard 4 Terminals available in positions 1, 4, 5, 8. These mounts are available in Anti-Static shipping tubes for automatic pick & place.

TM501 SERIES



Material: Diallyl Phthalate (Green)
Rating: UL 94-VO
Terminals: Brass wire, Ni Flash .025 Dia. (#22 AWG) 100% Tin Plated
Solderability: Per MIL-STD-202 Method 208
Packaging Tray: None
Application: An industry standard for 20 years, this series is suitable for components and wound toroids up to .550 inches. Potting cup PC501 is available for encapsulation (sold separately). See page 9.

| PART No. | TERMINALS |
|----------|-------------|
| TM501-4 | 1,3,4,6 |
| TM501-6 | 1,2,3,4,5,6 |

HORIZONTAL TOROID MOUNTS

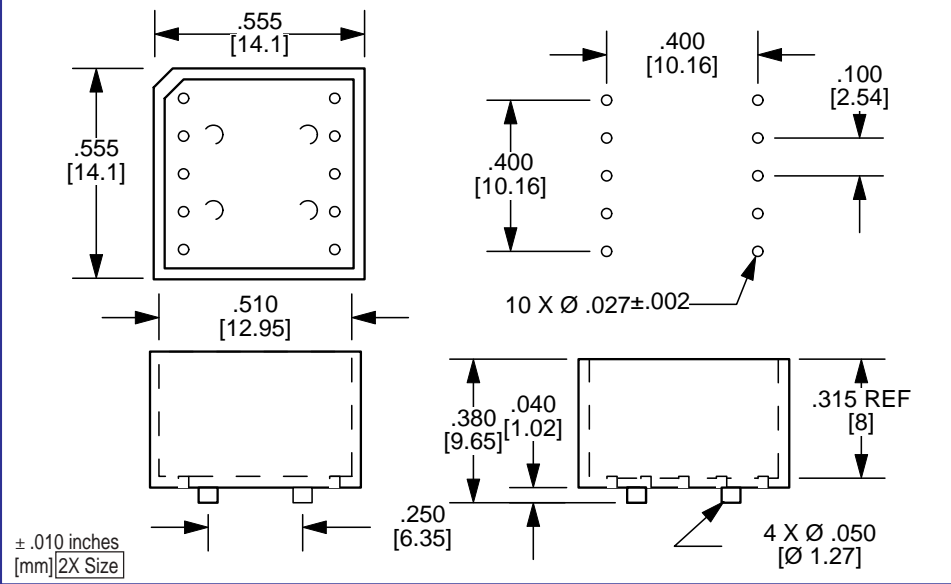
Phone (800) 694-8089 • Fax (714) 970-0800

HORIZONTAL MOUNTS

TM505-010

Material: Ryton (Black)
Rating: UL94-VO
10 Terminals: Self Leading
Packaging Tray: TY74x77-A

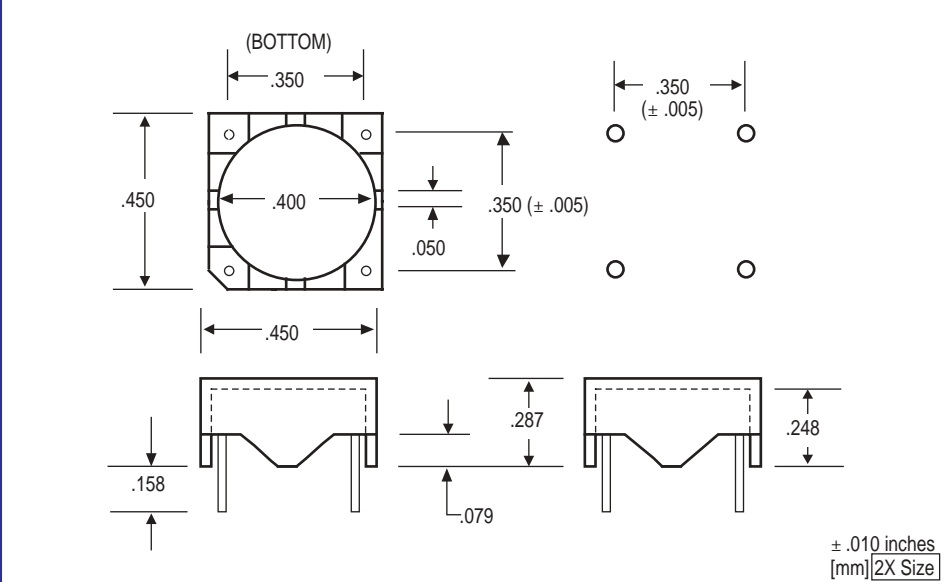
Application: For mounting components and wound toroids up to .500 inches in diameter. The toroids winding leads pass through holes in the bottom of the cup and are used to make the connection to the PCB.



TM507-4

Material: Diallyl Phthalate (Black)
Rating: UL 94-VO
4 Terminals: Copper Wire .025 Dia. (#22 AWG) 100% Tin Plated
Solderability: Per MIL-STD-202 Method 208
Packaging Tray: TY74x77-A

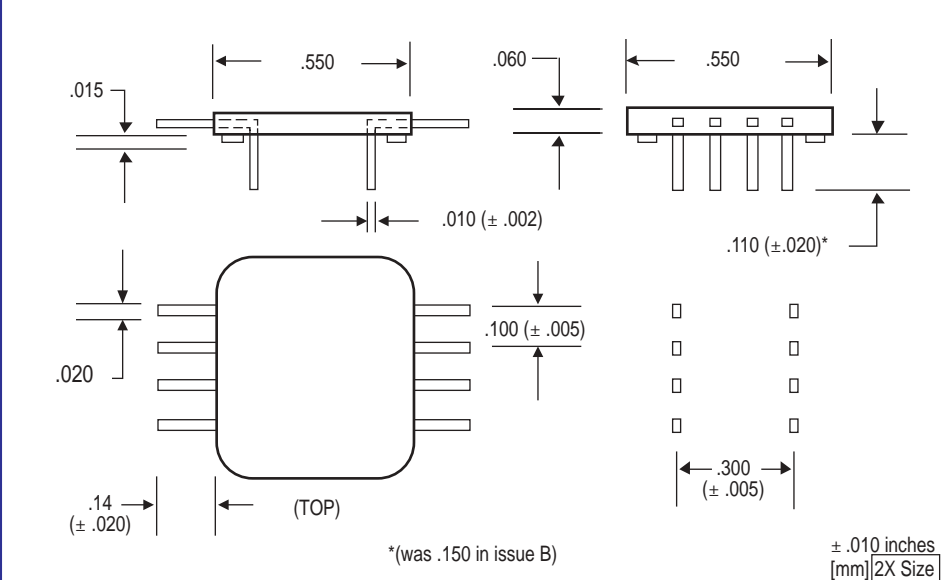
Application: For enclosed horizontal mounting of wound toroids up to .400 inches in diameter.



TM550-8

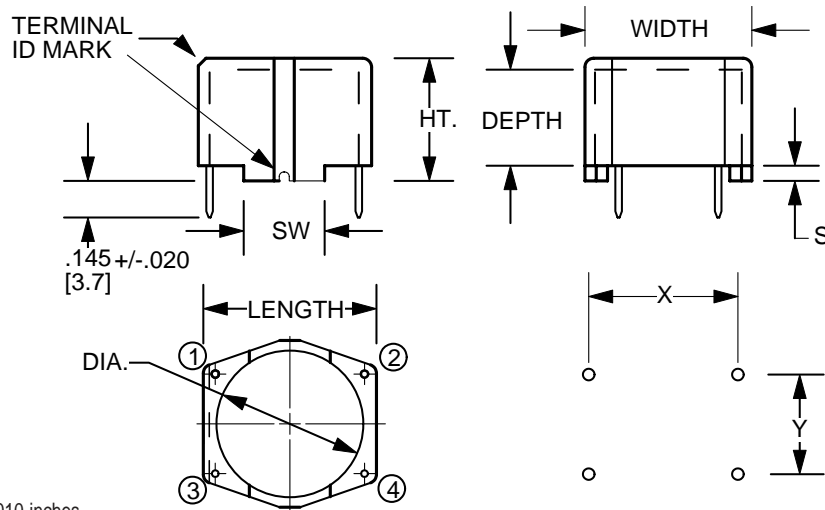
Material: Diallyl Phthalate (Black)
Rating: UL 94-VO MIL-STD-2000
8 Terminals: Alloy 42 .020 x .010 Lead Frame 90/10 Tin Plated
Solderability: Per MIL-STD-202 Method 208
Packaging Tray: TY65x100-A

Application: For horizontal mounting of components and wound toroids up to .550 inches in diameter.



*(was .150 in issue B)

HTC SERIES



± .010 inches
[mm] Not to Scale

Material: Nylon 6/6 (Natural)
DAP (Black)

Rating: UL 94-VO

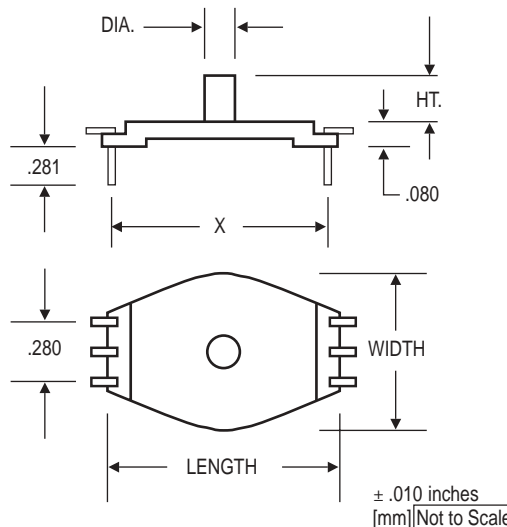
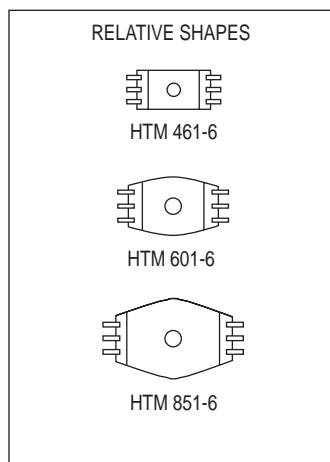
Terminals: Copper / Zinc
.026 x .026
60/40 Tin Plated

Solderability: Per MIL-STD-202
Method 208

Application: Enclosed horizontal mounting of toroidal inductors and transformers up to .965 inches in diameter. Ideal for applications requiring potting, part number marking and automatic pick and place. Terminals available in any of the 4 locations shown. Available in Anti-Static shipping tubes for automatic pick & place. HTC584-4 terminals are #20 copper tin plated .225 in length.

| PART NO. | LENGTH | WIDTH | HT. | DEPTH | DIA. | SW | S | X | Y | MOULDING | PACKING TRAY |
|----------|--------|--------|---------|--------|--------|--------|-------|---------|---------|-------------|--------------|
| HTC583-0 | .689 | .669 | .492 | .394 | .602 | .315 | .060 | .590 | .394 | Nylon 6/6 | TY74x77-A |
| HTC583-4 | [17.5] | [16.9] | [12.50] | [10.0] | [15.3] | [8.0] | [1.5] | [15.00] | [10.00] | | |
| HTC584-4 | .680 | .660 | .450 | .345 | .600 | .315 | .075 | .600 | .400 | DAP (Black) | TY74x77-A |
| | [17.3] | [16.8] | [11.4] | [8.8] | [15.2] | [8.0] | [1.9] | [15.2] | [10.2] | | |
| HTC764-0 | .886 | .886 | .590 | .472 | .819 | .405 | .077 | .787 | .492 | Nylon 6/6 | TY85x116-A |
| HTC764-4 | [22.5] | [22.5] | [15.0] | [12.0] | [20.8] | [10.3] | [2.0] | [20.00] | [12.50] | | |
| HTC965-0 | 1.080 | 1.080 | .690 | .550 | .972 | .472 | .098 | .984 | .590 | Nylon 6/6 | None |
| HTC965-4 | [27.5] | [27.5] | [17.5] | [14.0] | [24.7] | [12.0] | [2.5] | [25.00] | [15.00] | | |

HTM SERIES



± .010 inches
[mm] Not to Scale

Material: Nylon 6/6 (Tan)

Rating: UL 94-VO

6 Terminals: Brass
.025 X .010
95/5 Tin Plated

Solderability: Per MIL-STD-202
Method 208

Application: Low profile horizontal mounting of wound toroids from .400 to .850 inches in diameter. Each size is available with or without a center post.

| PART NO. | LENGTH | WIDTH | HT. | DIA. | X | CORE SIZES | PACKING TRAY |
|-----------|---------------|--------------|-------------|-------------|---------------|-------------------|--------------|
| HTM 460-6 | .720 [18.28] | .460 [11.68] | .000 | .000 | .638 [16.20] | up to .500 inches | TY65-100-A |
| HTM 461-6 | .720 [18.28] | .460 [11.68] | .163 [4.14] | .120 [3.04] | .638 [16.20] | up to .500 inches | TY65-100-A |
| HTM 600-6 | .937 [23.79] | .600 [15.24] | .000 | .000 | .848 [21.53] | up to .750 inches | TY85-116-A |
| HTM 601-6 | .937 [23.79] | .600 [15.24] | .250 [6.35] | .156 [3.96] | .848 [21.53] | up to .750 inches | TY85-116-A |
| HTM 850-6 | 1.208 [30.68] | .850 [21.59] | .000 | .000 | 1.130 [28.70] | up to 1.00 inches | TY122-140-A |
| HTM 851-6 | 1.208 [30.68] | .850 [21.59] | .250 [6.35] | .156 [3.96] | 1.130 [28.70] | up to 1.00 inches | TY122-140-A |

HORIZONTAL TOROID MOUNTS

Phone (800) 694-8089 • Fax (714) 970-0800

HORIZONTAL MOUNTS

TM1850-16

Material: Rynite FR50 (Black)

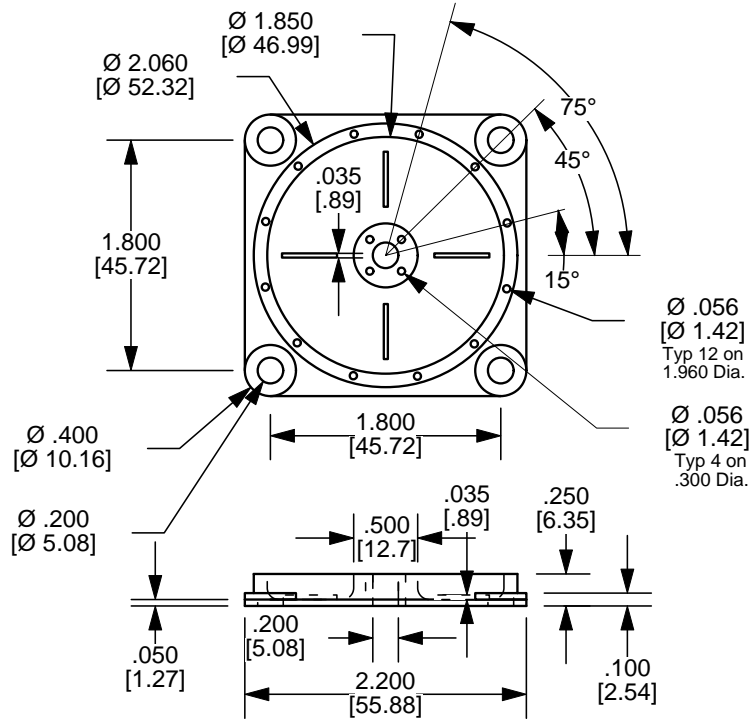
Rating: UL94-VO

16 Terminals: Self Leading

Packaging Tray: None

Application: For mounting wound toroids up to 1.85 inches in diameter. The toroids winding leads pass through holes in the bottom of the mount and are used to make the connection to the PCB. Four #10 bolt holes allow mounting to a chassis on "stilts" above a crowded printed circuit board. The bolt holes can also be used to connect "flying leads".

The reservoir portion of the mount will hold epoxy or RTP used to attach the coil. A potting cup fits over the core to facilitate complete encapsulation of the coil. (Sold separately.)



NEW

Ø .056 [Ø 1.42]
Typ 12 on 1.960 Dia.
Ø .056 [Ø 1.42]
Typ 4 on .300 Dia.

± .010 inches [mm] Not to Scale

TM2300-16

Material: Rynite FR50 (Black)

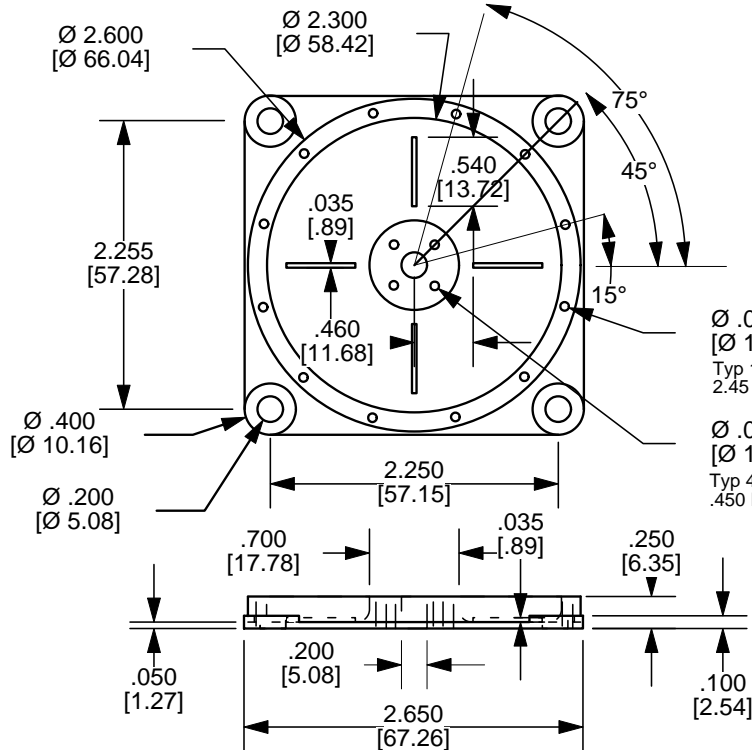
Rating: UL94-VO

16 Terminals: Self Leading

Packaging Tray: None

Application: For mounting wound toroids up to 1.85 inches in diameter. The toroids winding leads pass through holes in the bottom of the mount and are used to make the connection to the PCB. Four #10 bolt holes allow mounting to a chassis on "stilts" above a crowded printed circuit board. The bolt holes can also be used to connect "flying leads".

The reservoir portion of the mount will hold epoxy or RTP used to attach the coil. A potting cup fits over the core to facilitate complete encapsulation of the coil. (Sold separately.)



NEW

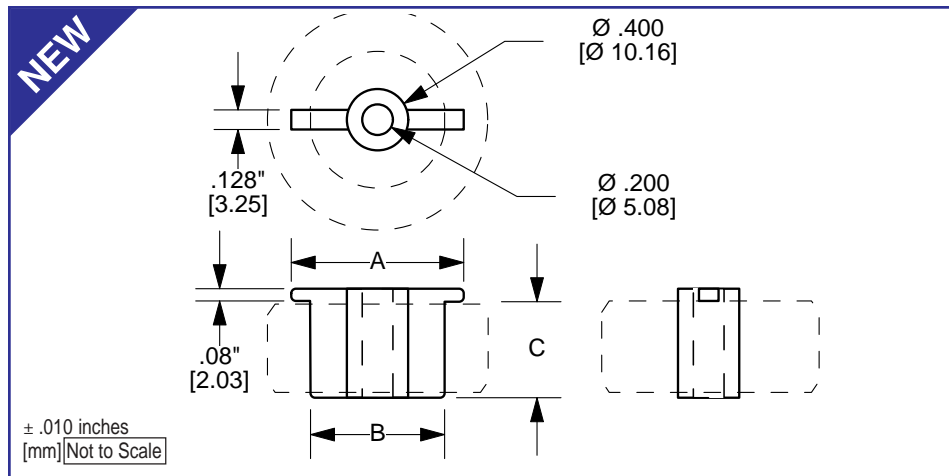
Ø .067 [Ø 1.7]
Typ 12 on 2.45 Dia.
Ø .067 [Ø 1.7]
Typ 4 on .450 Dia.

± .010 inches [mm] Not to Scale

**LARGE CORE MOUNTING SOLUTIONS
FROM 2 TO 6 INCHES IN DIAMETER**



CHASSIS MOUNT SOLUTIONS

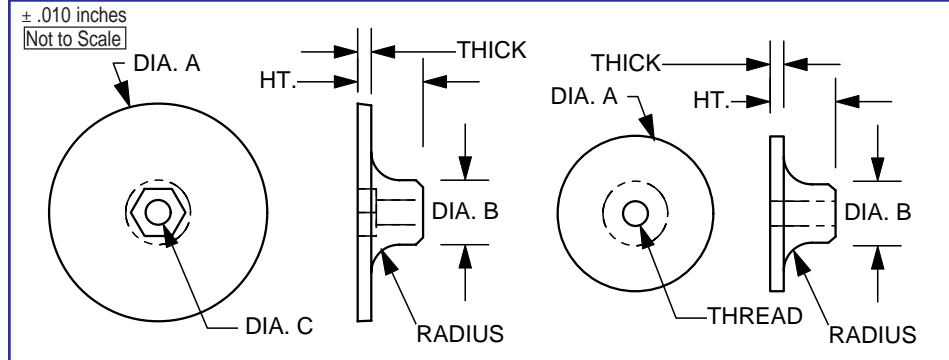


HTS SERIES

Material: Nylon 6/6 (Natural)
Rating: UL94-VO

Application: These horizontal spacers are for common mode chokes requiring voltage isolation. The hole through the center will allow a 10-32 bolt to secure the coil to a PCB, chassis, or to horizontal mounting platforms TM1850 and TM2300 on page 32.

| Part No. | A | B | C | DIA. | HOLE | BOLT SIZE |
|-----------|--------------|-------------|-------------|-------------|------------|-----------|
| HTS89-07 | 1.125 [28.6] | .880 [22.3] | .485 [12.3] | .400 [10.2] | .200 [5.1] | 10-32 |
| HTS73-01 | 1.020 [25.9] | .715 [18.2] | .900 [22.9] | .400 [10.2] | .200 [5.1] | 10-32 |
| HTS130-10 | 1.750 [44.5] | .525 [13.3] | .525 [13.3] | .400 [10.2] | .200 [5.1] | 10-32 |



TR SERIES

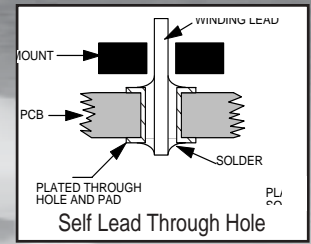
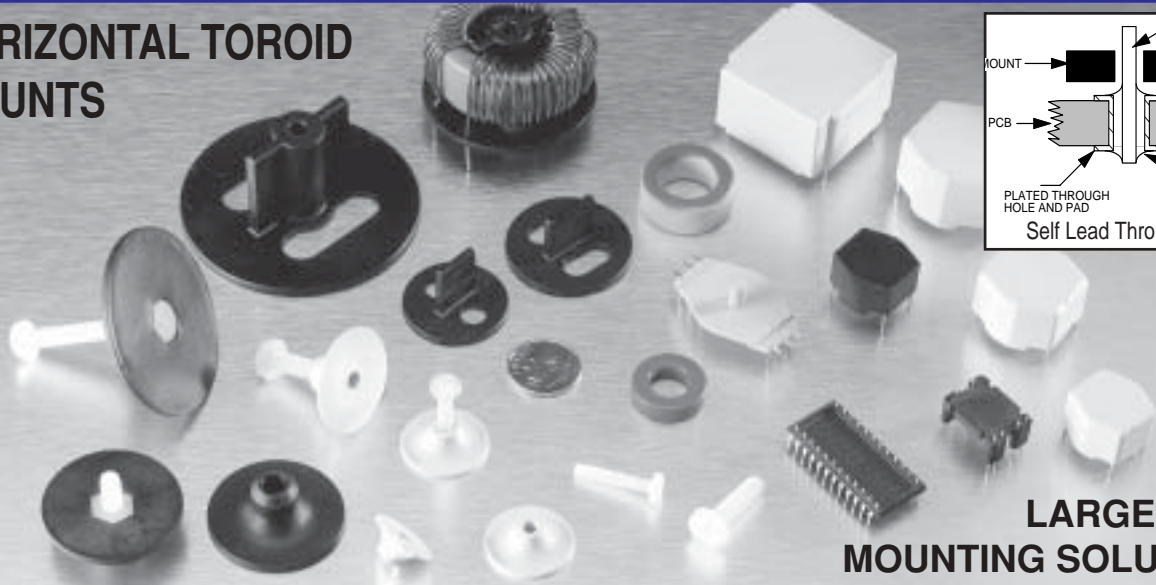
Material: Ryton (Black)
Zytel FR50 (Natural)
Rating: UL 94-VO

Application: Toroid Retainers are designed to bolt toroids from .60 to 3.0 inches in diameter to a PCB, chassis, or to mounting platforms TM1850 and TM2300 on page 32. Series A Toroid Retainers are designed to use a 10/32 bolt and nut, series B are threaded and require a bolt. (all sold separately).

| PART No. | DIA. A | DIA. B | HT. | THICK | RAD. | DIA. C | THREAD | BOLT (& Nut) | MAT'L |
|----------|--------|--------|------|-------|------|--------|--------|--------------|-------|
| TR60-B | .615 | .250 | .250 | .036 | .250 | ---- | 6-32 | M190 | Zytel |
| TR80-B | .812 | .250 | .255 | .050 | .250 | ---- | 6-32 | M190 | Zytel |
| TR100-B | 1.000 | .375 | .375 | .050 | .187 | ---- | 10-32 | M187 | Zytel |
| TR130-A | 1.250 | .425 | .500 | .085 | .225 | .200 | ---- | M187 & M185 | Ryton |
| TR200-A | 1.750 | .525 | .525 | .110 | .225 | .200 | ---- | M187 & M185 | Ryton |

M185: Nylon #10 hex nut
M187: Nylon 10-32 x 1.5 inch bolt
M190: Nylon 6-32 x 1.0 inch bolt
Larger Toroid Retainer on Page 35.

HORIZONTAL TOROID MOUNTS



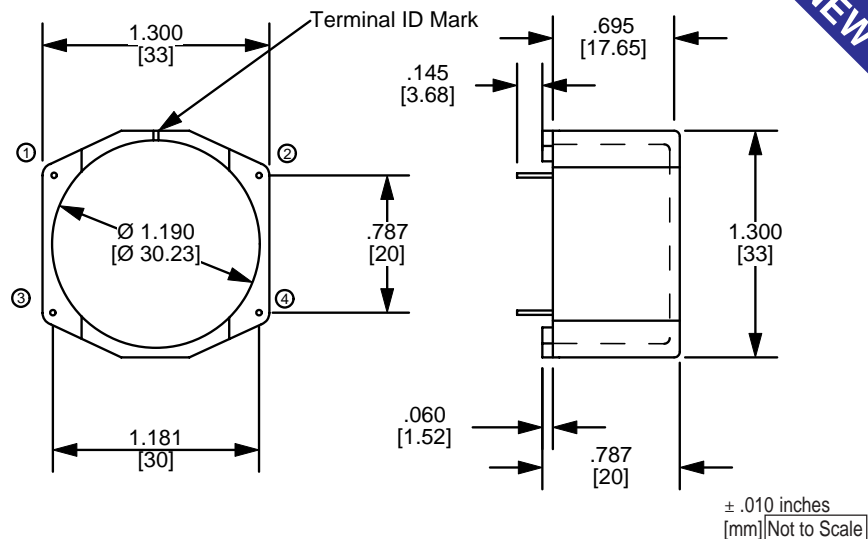
LARGE CORE MOUNTING SOLUTIONS

HORIZONTAL MOUNTS

HTC1208-0 & HTC1208-4

- Material:** Nylon 6/6 (Natural)
- Rating:** UL94-VO
- 4 Terminals:** Copper/Zinc .026 x .026 60/40 Tin Plated
- Solderability:** Per MIL-STD-202 Method 208
- Packaging Tray:** None

Application: For enclosed horizontal mounting of toroidal inductors and transformers up to 1.200 inches in diameter. Ideal for potting and part number marking. Available with or without terminals in any of the four locations shown.

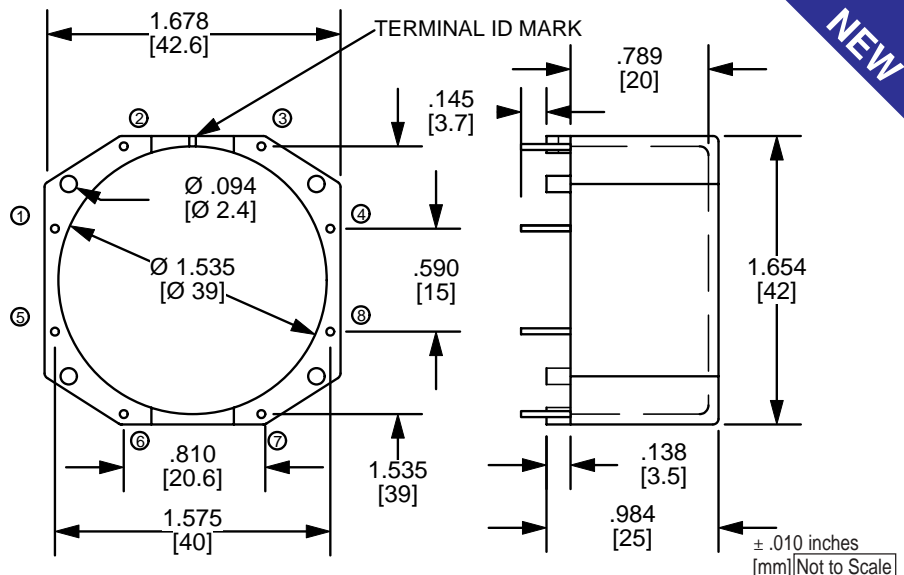


NEW

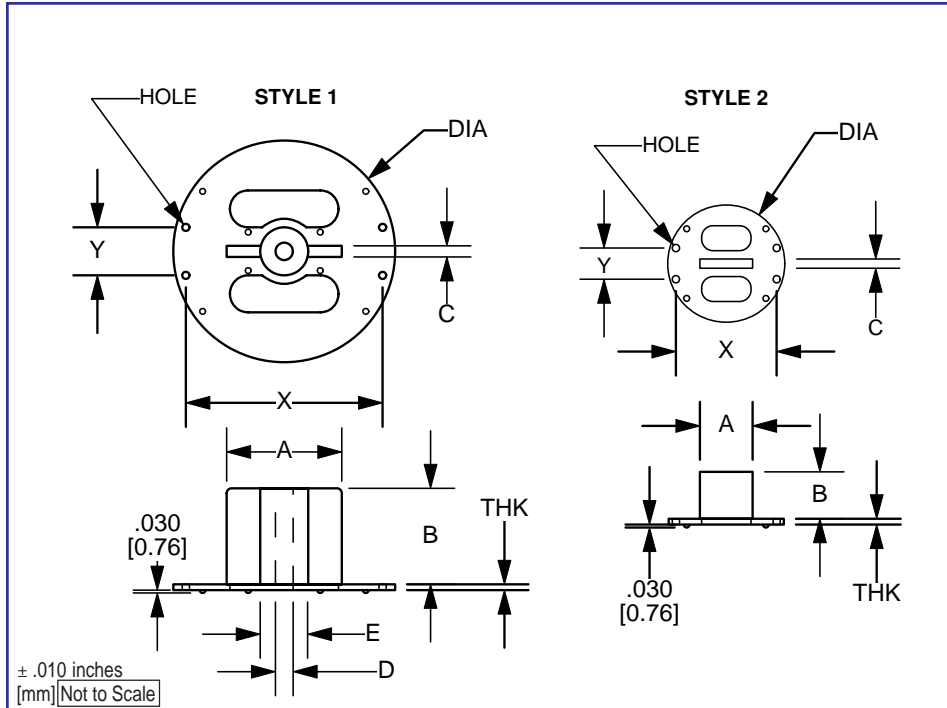
HTC1500-0 & HTC1500-4

- Material:** Nylon 6/6 (Natural)
- Rating:** UL94-VO
- 4 Terminals:** Copper/Zinc .026 x .026 60/40 Tin Plated
- Solderability:** Per MIL-STD-202 Method 208
- Packaging Tray:** None

Application: For enclosed horizontal mounting of toroidal inductors and transformers up to 1.500 inches in diameter. Ideal for potting and part number marking. Available with or without terminals in any of the four locations shown.



NEW



TCM SERIES

Material: Rynite (Black)

Rating: UL94-VO

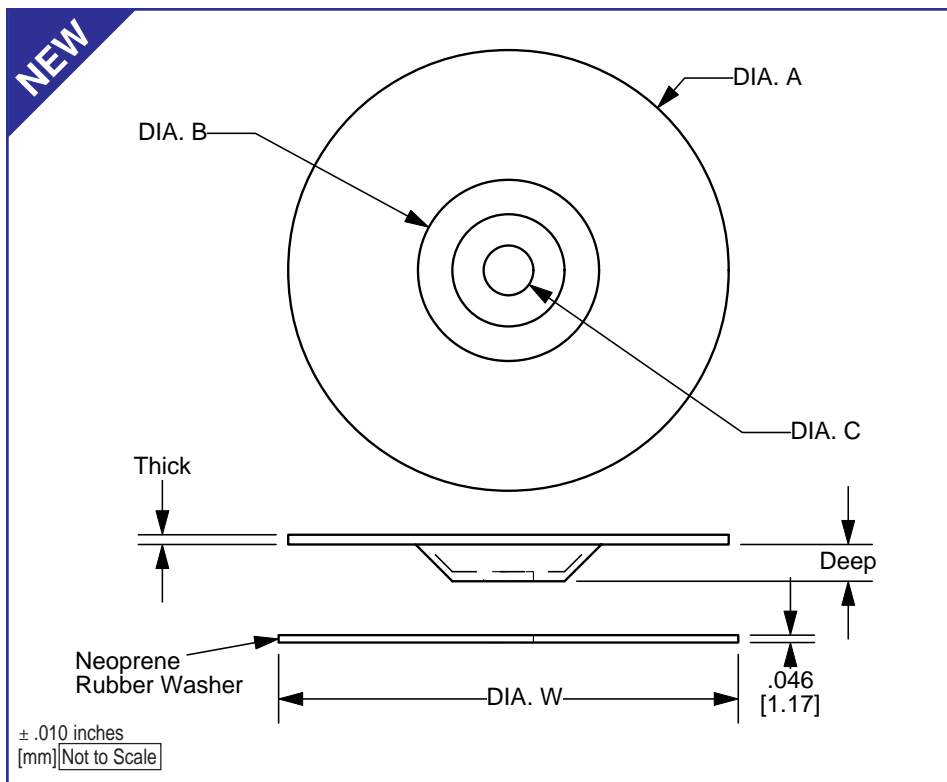
4 Terminals: Self leading

Packaging Tray:
 TCM100-04 TY122x140A
 TCM120-04 TY122x140-A
 TCM170-04 None
 TCM230-04 None

Application: For horizontal mounting of toroids utilizing the toroids winding leads to terminate to the PCB. The toroid's leads pass through the holes to be soldered to the PCB. The center post is designed for use in common mode applications where winding separation is important.

HORIZONTAL MOUNTS

| Part Number | DIA. | A | B | C | D | E | THK | HOLE | X | Y | Style |
|-------------|-------------|-------------|-------------|------------|------------|-------------|------------|------------|--------------|-------------|-------|
| TCM100-04 | 1.00 [25.4] | .457 [11.6] | .575 [14.6] | .085 [2.2] | ----- | ----- | .048 [1.2] | .053 [1.3] | .825 [20.9] | .300 [7.6] | 2 |
| TCM120-04 | 1.21 [30.7] | .554 [14.1] | .490 [12.4] | .093 [2.4] | ----- | ----- | .062 [1.6] | .064 [1.6] | 1.050 [26.7] | .330 [8.4] | 2 |
| TCM170-04 | 1.70 [43.2] | .862 [21.9] | .800 [20.3] | .120 [3.1] | .170 [4.3] | .440 [11.2] | .062 [1.6] | .064 [1.6] | 1.40 [35.6] | .500 [12.7] | 1 |
| TCM230-04 | 2.31 [58.7] | 1.20 [30.5] | 1.00 [25.4] | .120 [3.1] | .170 [4.3] | .500 [12.7] | .062 [1.6] | .064 [1.6] | 2.050 [52.1] | .500 [12.7] | 1 |



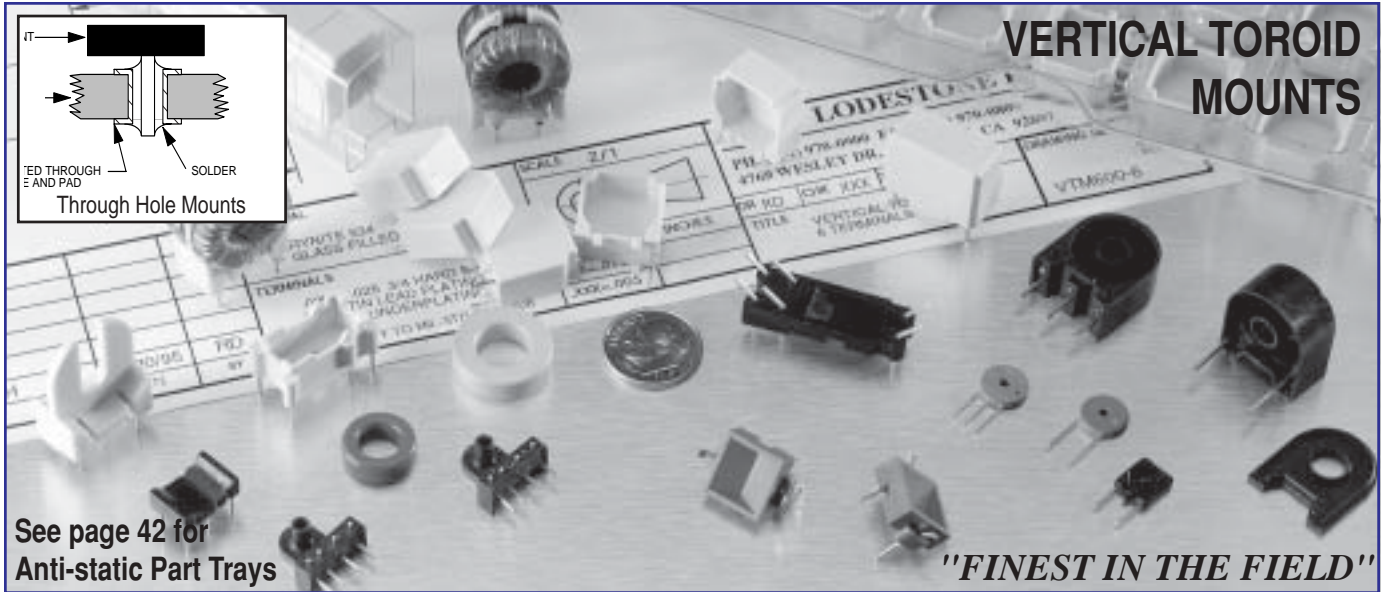
LARGE TR SERIES

Material: Steel
Electro Zinc Plated

Rating: UL 94-VO

Application: The Toroid Retainer series is designed to bolt toroids from 2.0 to 6.0 inches in diameter to a circuit board or assembly chassis. Neoprene Rubber washers are designed to both insulate and protect the toroid from the pressure of the Retainer. Neoprene washer are sold separately. Steel Toroid Retainers are designed to be used with a Stainless Steel 5/16 bolt nut, and washer, sold separately.

| Part No. | Dia. A | Dia. B | Dia.C | Thick | Deep | Mat'l | Washer | Dia. W | Mat'l |
|----------|--------------|-------------|------------|------------|------------|-------|--------|--------------|-------|
| TR275-C | 2.75 [69.8] | 1.13 [28.7] | .310 [7.8] | .060 [1.5] | .260 [6.6] | Steel | W275-N | 2.87 [72.9] | Neo |
| TR350-C | 3.50 [88.9] | 1.25 [30.4] | .310 [7.8] | .060 [1.5] | .280 [7.1] | Steel | W350-N | 3.68 [93.5] | Neo |
| TR450-C | 4.38 [111.2] | 1.38 [35.0] | .310 [7.8] | .080 [2.0] | .300 [7.6] | Steel | W438-N | 4.62 [117.3] | Neo |

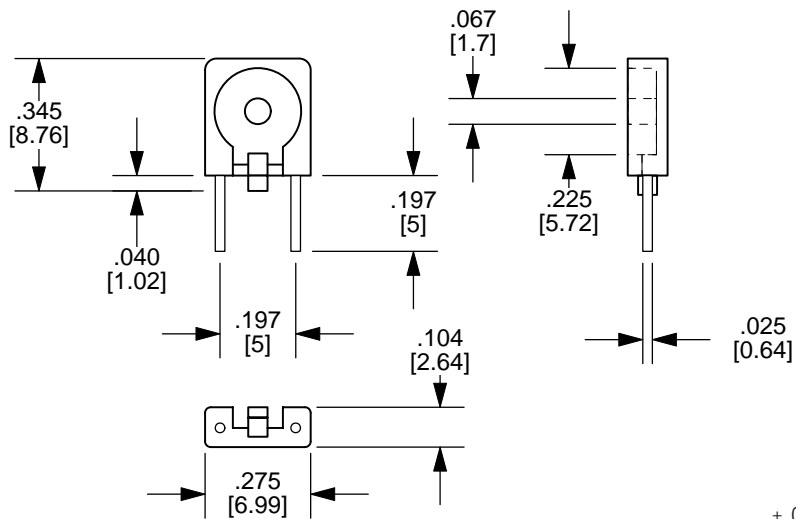


See page 42 for
Anti-static Part Trays

"FINEST IN THE FIELD"

VTM225-2

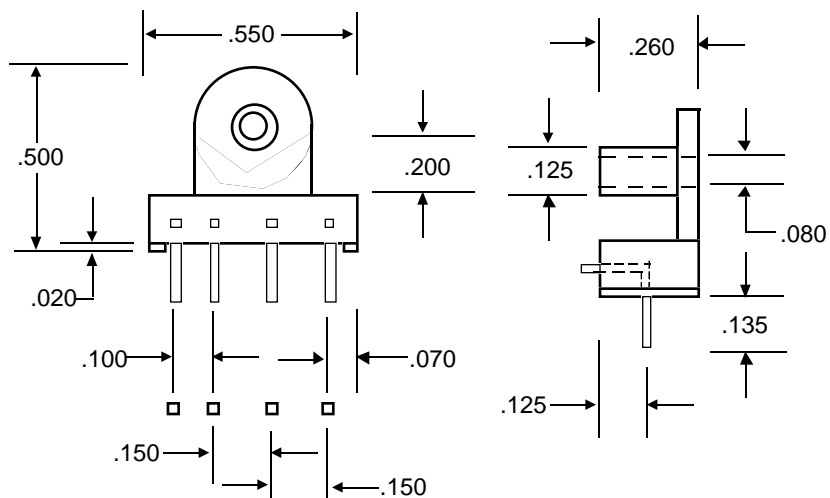
Material: Phenolic (Black)
Rating: UL94-VO
2 Terminals: Copper Wire 90/10 Tin Plated
Solderability: Per MIL-STD-202 Method 208
Packaging Tray: TY50x50-A
Application: For vertical inductor applications using a wound inductor up to .225 inches in diameter.



± .010 inches
[mm] [2X Size]

VTM370-4

Material: Rynite (Black)
Rating: UL 94-VO
4 Terminals: Phos Bronze .025 x .025 90/10 Tin Plated
Solderability: Per MIL-STD-202 Method 208
Packaging Tray: TY74x77-A
Application: For vertical mounting of wound toroids up to .370 inches in diameter in transformer and current sensing applications.



± .010 inches
[mm] [2X Size]

VERTICAL MOUNTS

PC401
(Page 9)

.340

.200

.100

.078

.078

.250 (VTM421-03)

.300 (VTM421-02)

.020

1 2 3

± .010 inches
[mm] 2X Size

| PART NO. | TERMINALS |
|-----------|-----------|
| VTM421-02 | 1,3 |
| VTM421-03 | 1,2,3 |

VTM421-02 & VTM421-03

Material: Diallyl Phthalate (Green)

Rating: UL 94-VO

Terminals: Copper Wire
.020 Dia. (#24AWG)
100% Tin Plated

Solderability: Per MIL-STD-202 Method 208

Packaging Tray: TY45x70-A

Application: For vertical mounting of wound toroids up to .340 inches. Potting cup PC401 is available for encapsulation of the components on the VTM421 series (sold separately). See page 9.

.484 [12.29]

.015 [0.37]

.484 [12.29]

.050 [1.27]

R .228

R [5.8]

.400 [10.16]

.200 [5.08]

.285 [7.24]

.175 [4.45]

.100 [2.54]

.148 [3.75]

.249 [6.31]

± .010 inches
[mm] 2X Size

VTM455-4

Material: Zytel FR50 (Natural)

Rating: UL94-VO

4 Terminals: Copper Wire
.020 x .020
60/40 Tin Plated

Solderability: Per MIL-STD-202 Method 208

Packaging Tray: TY74x77-A

Application: For vertical mounting of wound toroids up to .455 inches in diameter in inductor, transformer and current sensor applications. Also available anti-static packaging tubes.

.590 [15]

.070 [1.78]

.555 [14.1]

.190 [4.83]

.290 [7.4]

.255 [6.5]

.500 [12.7]

.030 [0.76]

.100 [2.54]

.685 [17.4]

± .010 inches
[mm] 2X Size

VTM555-4

Material: Zytel FR50 (Natural)

Rating: UL 94-VO

4 Terminals: Copper Wire
.020 x .020
60/40 Tin Plate

Solderability: Per MIL-STD-202 Method 208

Packaging Tray: TY65x100-A

Application: For vertical mounting of wound toroids up to .555 inches in diameter. This product is shipped from Lodestone Pacific in anti-static shipping tubes.

VERTICAL TOROID MOUNTS

Phone (800) 694-8089 • Fax (714) 970-0800

VTM590-3

Material: PBT
(Black)

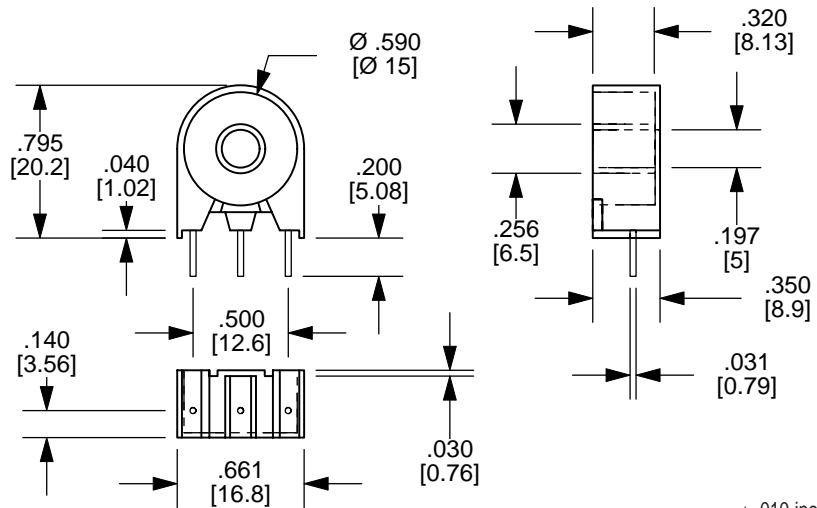
Rating: UL94-VO

3 Terminals: Copper Wire
90/10 Tin Plate

Solderability: Per MIL-STD-202
Method 208

Packaging Tray: TY85x116-A

Application: For vertical mounting of wound toroids up to .590 inches in diameter in inductor and current sensor applications.



$\pm .010$ inches
[mm] Actual Size

VTM600-6

Material: Rynite
(Tan)

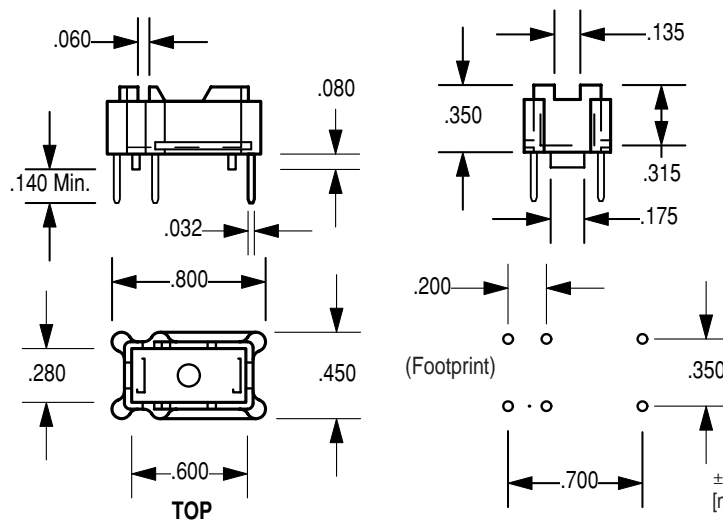
Rating: UL 94-VO

6 Terminals: Copper Wire
.025 X .025
90/10 Tin Plate

Solderability: Per MIL-STD-202
Method 208

Packaging Tray: TY85x116-A

Application: For vertical mounting of wound toroids up to .600 inches in diameter in transformer, current sensing, and gate drive transformer applications.



$\pm .010$ inches
[mm] Actual Size

VTM620-2

Material: PBT
(Black)

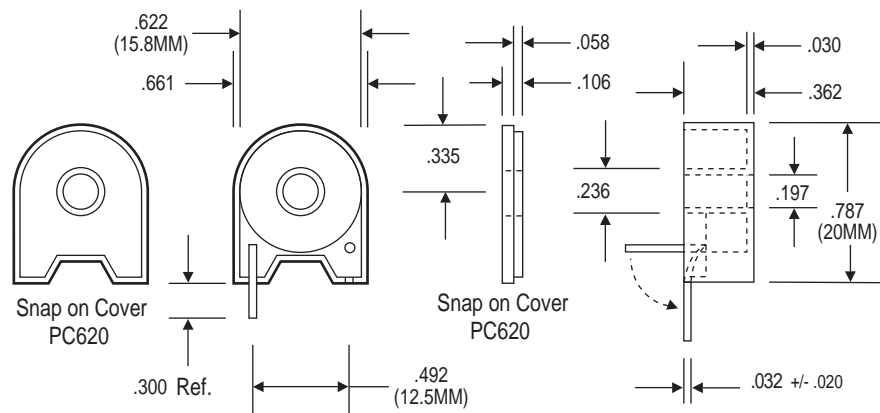
Rating: UL 94-VO

2 Terminals: Copper Wire
.032 Dia. (#20AWG)
100% Tin Plate

Solderability: Per MIL-STD-202
Method 208

Packaging Tray: TY85x116-A

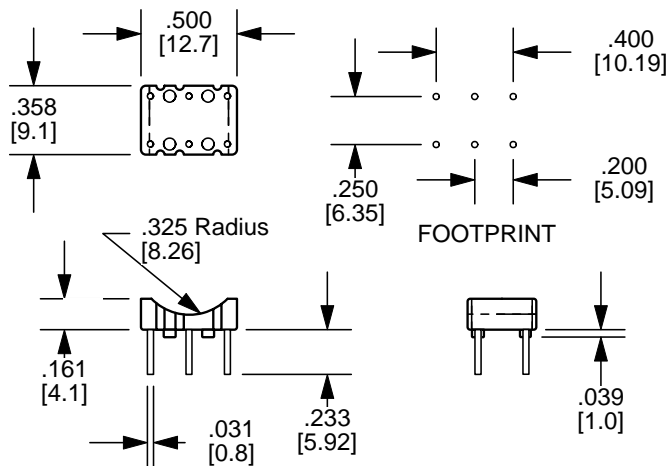
Application: For vertical mounted inductors or current sensors. Terminals are shipped in the horizontal position to facilitate toroid lead connection. Terminals are then moved to the vertical position for circuit board insertion. Optional snap-on cover PC620 is available to seal the assembly.



$\pm .010$ inches
[mm] Actual Size

VERTICAL MOUNTS

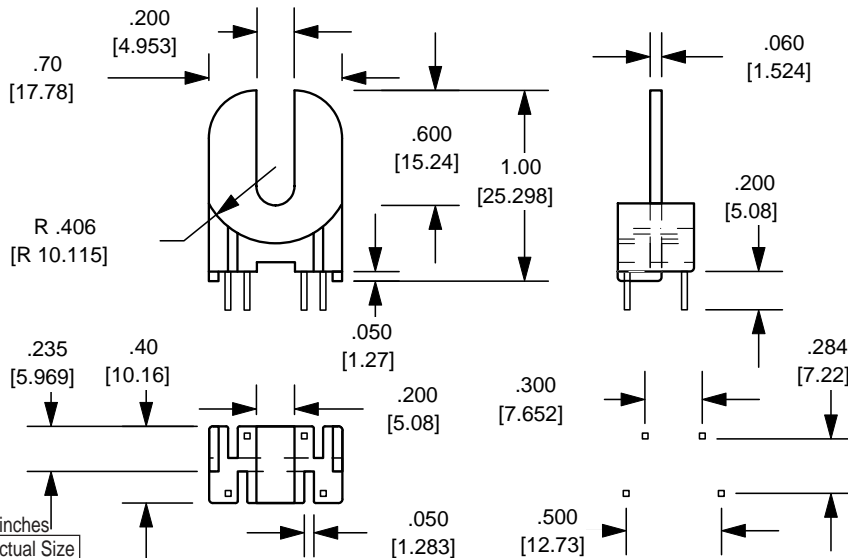
VTM650-6



± .010 inches
[mm] Actual Size

Material: Phenolic (Black)
Rating: UL94-VO
6 Terminals: Copper Wire
90/10 Tin Plate
Solderability: Per MIL-STD-202 Method 208
Packaging Tray: TY85x116-A
Application: For vertical mounting of inductor, transformer and current sensor applications using a wound toroid up to .650 inches in diameter.

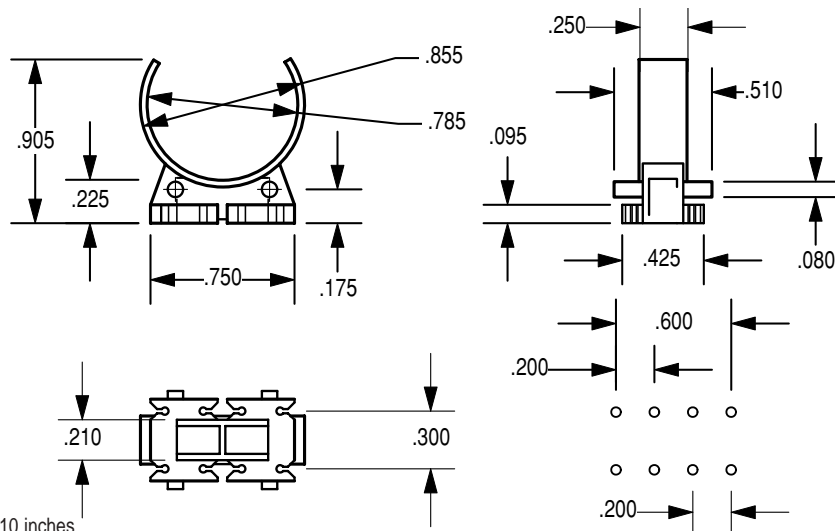
VTM681-4



± .010 inches
[mm] Actual Size

Material: Rynite (Natural)
Rating: UL94-VO
4 Terminals: Copper Zinc
.026 x .026
60/40 Tin Plate
Nickel Flash
Solderability: Per MIL-STD-202 Method 208
Packaging Tray: TY85x116-A
Application: Designed for vertical mounting of up to two .800 inch wound toroids. Also suitable for current sensing applications.

VTM800-08



± .010 inches
[mm] Actual Size

Material: Zytel FR50 (Natural)
Rating: UL 94-VO
8 Terminals: Self leading
#20 AWG
Solderability: Per MIL-STD-202 Method 208
Packaging Tray: TY122x140-A
Application: Designed for vertical mounting of .800 inch unwound toroids. The mount is designed to have the unwound core placed in the yoke, then to have the wire winding surround the core and yoke, holding the two in a single unit. Up to 8 winding leads are then snapped into the mount base. Best suited for #20 (.034) AWG.

VERTICAL MOUNTS

VERTICAL TOROID MOUNTS

Phone (800) 694-8089 • Fax (714) 970-0800

VTM955-4

Material: Nylon 6/6 (Natural)

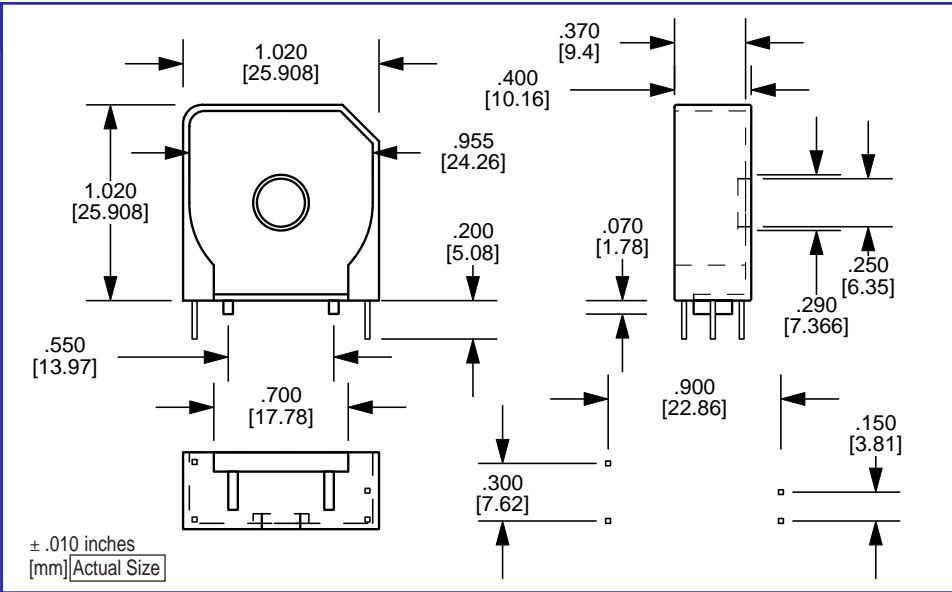
Rating: UL94-VO

4 Terminals: Copper Zinc .026 x .026 60/40 Tin Plate Nickel Flash

Solderability: Per MIL-STD-202 Method 208

Packaging Tray: TY122x140-A

Application: For vertical mounting of wound toroids up to .955 inches in diameter. Also available anti-static packaging tubes.



10 TERMINAL VTM SERIES

Material: Nylon 6/6 (Natural)

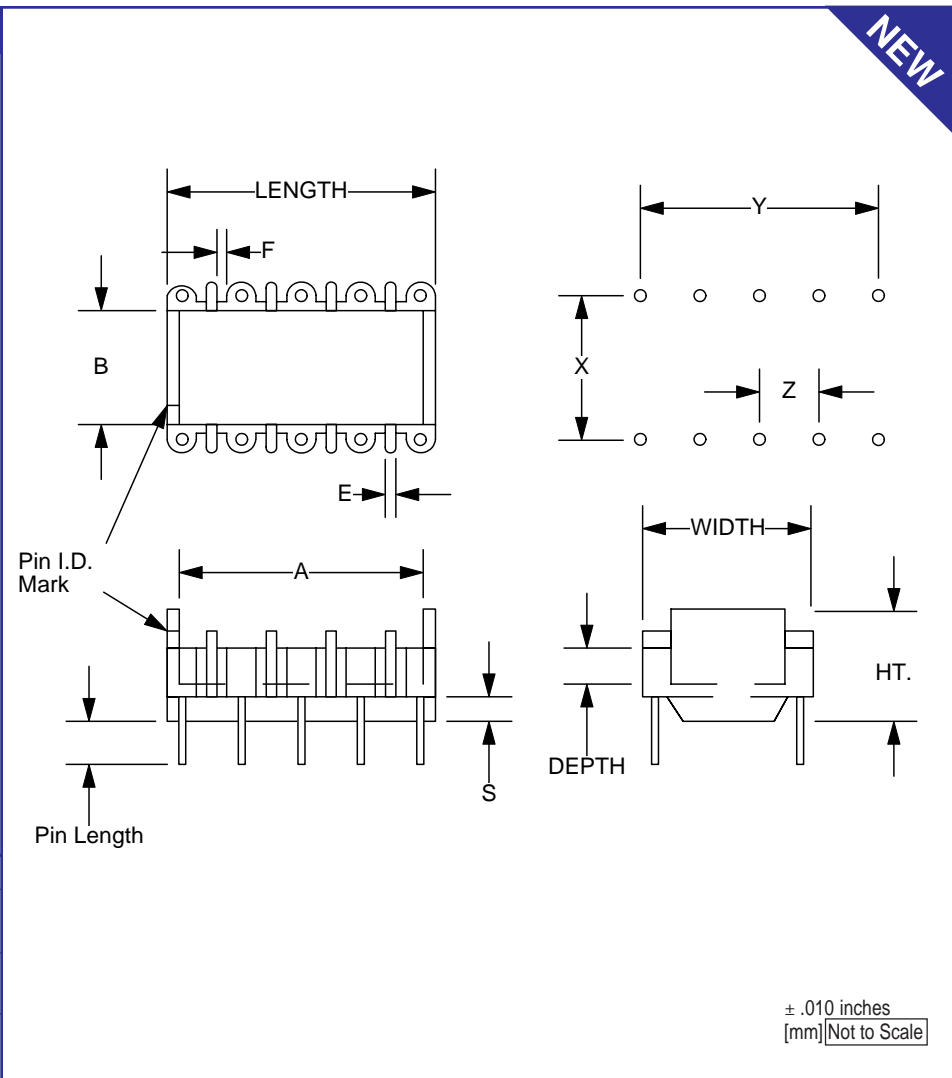
Rating: UL94-VO

10 Terminals: Copper Zinc 60/40 Tin Plate Nickel Flash

Solderability: Per MIL-STD-202 Method 208

Packaging Tray: TY122x140-A

Application: For vertical mounting of wound toroids from .600 inches to 1.220 in diameter. Coils can be glued onto the cup and the up to 10 terminals are soldered under the mount. Several smaller toroids can be mounted with diameters oriented in the direction of the B dimension.



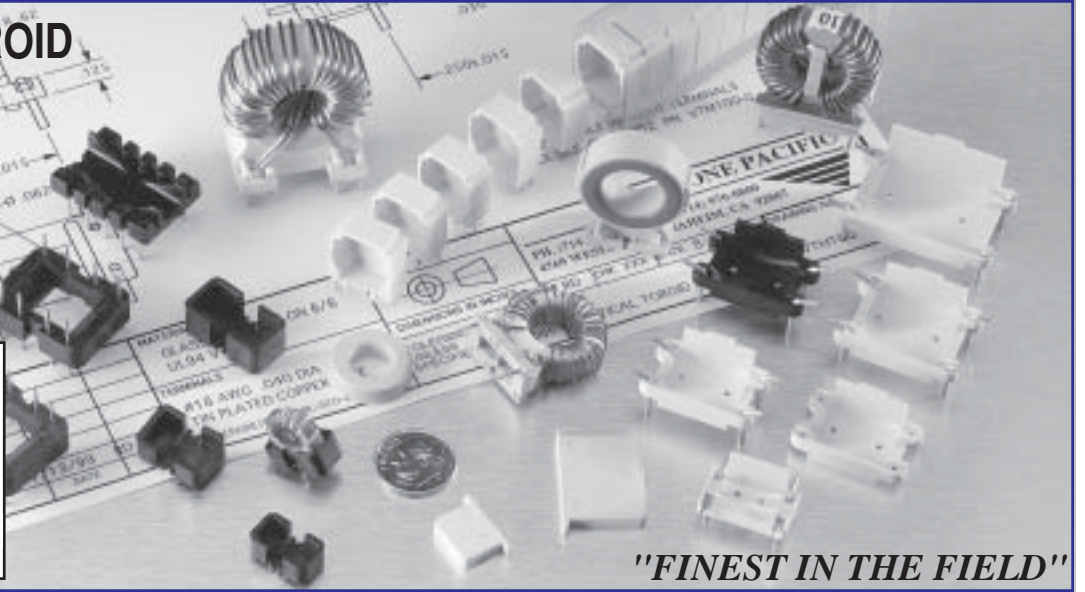
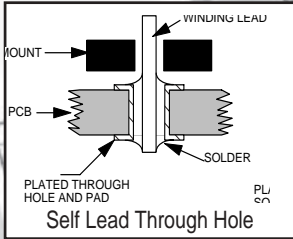
NEW

| Part No. | Term. Size | Pin Length |
|------------|------------------------|---------------|
| VTM880-10 | .020x.020 [.50x.50] | .157 [4.0] |
| VTM1020-10 | .027x.027 [.70x.70] | .177 [4.5] |
| VTM1220-10 | .027x.027 [.70x.70] | .177 [4.5] |

| Part No. | Length | Width | A | B | Ht. | Depth | E | F | X | Y | Z |
|------------|-------------|-------------|-------------|-------------|-------------|------------|------------|------------|-------------|--------------|-------------|
| VTM880-10 | .917 [23.3] | .618 [15.7] | .850 [21.6] | .380 [9.65] | .433 [11.0] | .155 [3.9] | .031 [7.9] | .031 [7.9] | .500 [12.7] | .800 [20.3] | .200 [5.08] |
| VTM1020-10 | 1.10 [28.0] | .708 [18.0] | 1.00 [25.4] | .467 [11.9] | .472 [12.0] | .148 [3.8] | .055 [1.4] | .040 [1.0] | .590 [15.0] | .984 [25.0] | .246 [6.25] |
| VTM1220-10 | 1.30 [33.0] | .906 [23.0] | 1.17 [29.7] | .670 [26.4] | .512 [13.0] | .120 [3.1] | .086 [2.2] | .050 [1.3] | .787 [20.0] | 1.181 [30.0] | .295 [7.50] |

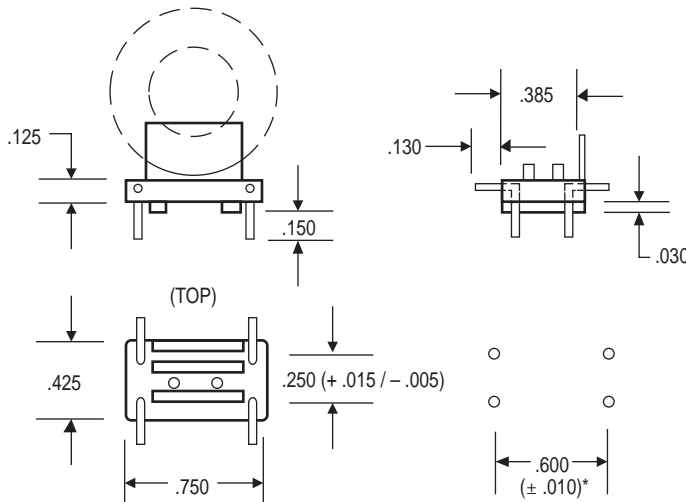
VERTICAL MOUNTS

VERTICAL TOROID MOUNTS



"FINEST IN THE FIELD"

VTM100-4



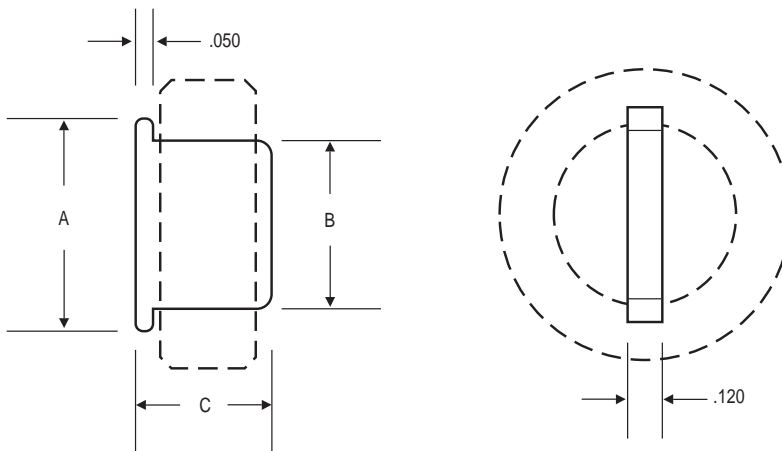
± .010 inches
[mm] Actual Size

(* Tolerance at end of terminal)

- Material:** Nylon 6/6 (Tan)
- Rating:** UL 94-VO
- 4 Terminals:** Copper Wire .040 Dia. (#18 AWG) 100% Tin Plated
- Solderability:** Per MIL-STD-202 Method 208
- Packaging Tray:** TY85x116-A
- Application:** An industry standard for vertical mounting of wound toroids up to 1.15 inches in diameter. VTM 100-0 is available with .037 through holes instead of terminals.

VERTICAL MOUNTS

TS SERIES



± .010 inches
[mm] Not to Scale

- Material:** 6/6 Nylon (Natural)
- Rating:** UL 94-VO
- Application:** Spacers are for common mode chokes requiring voltage isolation

| Part No. | A | B | C |
|----------|--------------|--------------|-------------|
| TS33-13 | .460 [11.7] | .315 [8.0] | .285 [7.2] |
| TS48-12 | .660 [16.7] | .465 [11.8] | .365 [9.3] |
| TS52-03 | .660 [16.7] | .480 [12.2] | .412 [10.5] |
| TS52-05 | .660 [16.7] | .510 [12.9] | .600 [15.2] |
| TS59-02 | .730 [18.5] | .577 [14.6] | .600 [15.2] |
| TS59-06 | .730 [18.5] | .560 [14.2] | .412 [10.5] |
| TS73-01 | .930 [23.6] | .720 [18.2] | .700 [17.8] |
| TS73-11 | .930 [23.6] | .722 [18.3] | .430 [10.9] |
| TS89-07 | 1.025 [26.0] | .875 [22.2] | .690 [17.5] |
| TS94-14 | 1.030 [26.1] | .930 [23.6] | .670 [17.0] |
| TS130-10 | 1.460 [37.1] | 1.290 [32.8] | .740 [18.8] |
| TS140-08 | 1.372 [34.8] | 1.212 [30.8] | .875 [22.2] |

VERTICAL TOROID MOUNTS

Phone (800) 694-8089 • Fax (714) 970-0800

| VTM SERIES | | | | | | | |
|------------------------|--|--|--|--|--|--|--|
| Material: | RTP205FR (Natural) | | | | | | |
| Rating: | UL 94-VO | | | | | | |
| 4 Terminals: | Copper Wire .050 Dia. (#16 AWG) 100% Tin Plated | | | | | | |
| Solderability: | Per MIL-STD-202 Method 208 | | | | | | |
| Packaging Tray: | TY122x140-A VTM120 size only. | | | | | | |
| Application: | For vertical mounting of wound toroids from 1.00 to 2.8 inches in diameter. The VTM series is available with the four terminals shown or without terminals (.048 through hole). Non-standard through holes of .067, .082 and .089 are available. #16 AWG (.050) is the only terminal diameter available. | | | | | | |

± .010 inches
[mm][Not to Scale]

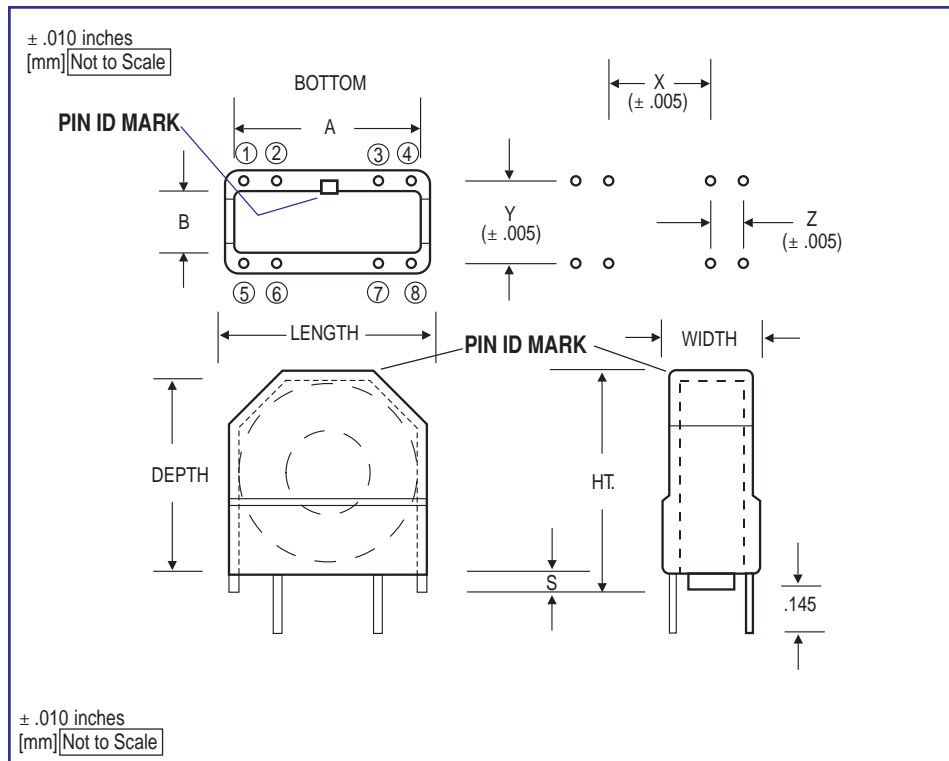
| PART NO. | LENGTH | WIDTH | THICK. | DIA. | X | Y | TERMINALS |
|----------|---------|---------|---------|---------|---------|---------|-------------------|
| VTM120-0 | 1.00 | .60 | .51 | 1.20 | .80 | .40 | None (.048 Holes) |
| VTM120-4 | [25.4] | [15.24] | [12.95] | [30.48] | [20.32] | [10.16] | 4=#16 AWG (.050) |
| VTM160-0 | 1.10 | .80 | .71 | 1.60 | .90 | .60 | None (.048 Holes) |
| VTM160-4 | [27.94] | [20.32] | [18.03] | [40.64] | [22.86] | [15.24] | 4=#16 AWG (.050) |
| VTM254-0 | 1.40 | .90 | .81 | 2.54 | 1.20 | .70 | None (.048 Holes) |
| VTM254-4 | [35.56] | [22.86] | [20.57] | [64.51] | [30.48] | [17.78] | 4=#16 AWG (.050) |
| VTM280-0 | 1.70 | 1.10 | 1.01 | 2.80 | 1.50 | .90 | None (.048 Holes) |
| VTM280-4 | [43.18] | [27.79] | [25.65] | [71.12] | [38.1] | [22.86] | 4=#16 AWG (.050) |

VERTICAL MOUNTS

| KM SERIES | | | | | | | | | | |
|-----------------------|---|--|--|--|--|--|--|--|--|--|
| Material: | Vydyne 909 (Black) | | | | | | | | | |
| Rating: | UL 94-VO | | | | | | | | | |
| 2 Terminals: | Self Leading | | | | | | | | | |
| Solderability: | Per MIL-STD-202 Method 208 | | | | | | | | | |
| Application: | "Klip" mounts are designed as a "self-led" inductor mount for wound toroids from .030 to 1.10 inches in diameter. The molded "Klip" holds the toroid leads for circuit board termination. This product is the patented concept of Pulse Engineering Inc. | | | | | | | | | |

± .010 inches
[mm][Not to Scale]

| PART NO. | LENGTH | WIDTH | A | B | HT. | T | X | KLIP WIRE SIZE | TOROID DIA. | PACKING TRAY |
|----------|---------|---------|---------|---------|---------|--------|---------|----------------|-------------|--------------|
| KM44-01 | .580 | .340 | .480 | .240 | .280 | .110 | .220 | 24-23 AWG | .450 | TY74x77-A |
| KM44-02 | [14.73] | [8.63] | [12.19] | [6.09] | [7.11] | [2.79] | [5.58] | 22-21 AWG | | |
| KM50-01 | .650 | .450 | .550 | .350 | .300 | .110 | .300 | 24-21 AWG | .550 | TY74x77-A |
| KM50-02 | [16.51] | [11.43] | [13.97] | [8.89] | [7.62] | [2.79] | [7.62] | 20-18 AWG | | |
| KM68-01 | .830 | .450 | .730 | .350 | .370 | .110 | .300 | 24-21 AWG | .725 | TY65x100-A |
| KM68-02 | [21.08] | [11.43] | [18.54] | [8.89] | [9.39] | [2.79] | [7.62] | 20-18 AWG | | |
| KM80-01 | .950 | .600 | .850 | .500 | .420 | .110 | .450 | 22-19 AWG | .850 | TY122x140-A |
| KM80-02 | [24.13] | [15.24] | [21.59] | [12.7] | [10.66] | [2.79] | [11.43] | 18-17 AWG | | |
| KM106-01 | 1.250 | .700 | 1.150 | .600 | .580 | .130 | .500 | 22-19 AWG | 1.150 | TY122x140-A |
| KM106-02 | [31.75] | [17.78] | [29.21] | [15.24] | [14.73] | [3.30] | [12.7] | 18-17 AWG | | |



VTC SERIES

Material: Zytel FR50 (Natural)

Rating: UL 94-VO

Terminals: Copper / Zinc
.026 x .026
90/10 Tin Plated

Solderability: Per MIL-STD-202
Method 208

Application: A European standard for enclosed vertical mounting wound toroids from .500 to 1.46 inches in dia. Four terminals in positions 2, 3, 6, 7 is standard. Any terminal pattern can be provided. Example; VTC774-5/12356. (five terminals in positions 1, 2, 3, 5, 6). Anti-static shipping tubes are available for all VTC's but are standard with VTC512 and VTC613.

*Plates available to enclose the bottom of these VTC's which allow for self leading of heavier guage wire. Contact Lodestone Pacific for more information.

VERTICAL MOUNTS

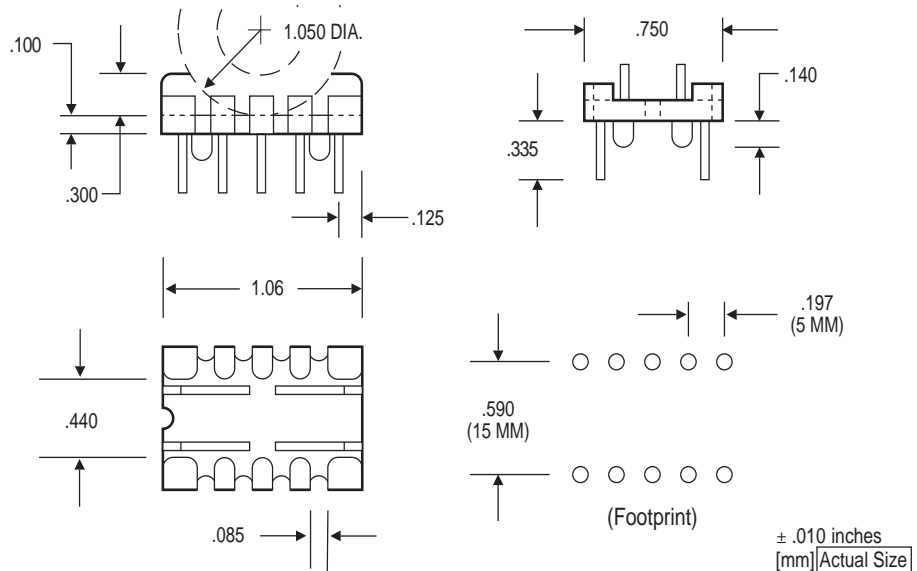
| PART NO. | LENGTH | WIDTH | A | B | HT. | DEPTH | S | X | Y | Z | TRAY | TUBES |
|------------------|------------------|-----------------|------------------|----------------|-----------------|-----------------|----------------|----------------|----------------|---------------|-------------|----------|
| VTC 512-4 | .750 [19.0] | .350 [9.0] | .520 [13.2] | .270 [6.85] | .630 [16.0] | .527 [13.4] | .063 [1.6] | .590 [15.0] | .197 [5.0] | — | TY74x77-A | Standard |
| VTC 613-4 | .710 [18.0] | .510 [13.0] | .630 [16.0] | .315 [8.0] | .787 [20.0] | .685 [17.5] | .063 [1.6] | .197 [5.0] | .394 [10.0] | .197 [5.0] | TY85x116-A | Standard |
| VTC 774-4 | .905 [23.0] | .610 [15.5] | .790 [20.0] | .394 [10.0] | .984 [25.0] | .889 [22.6] | .055 [1.4] | .394 [10.0] | .492 [12.5] | .197 [5.0] | TY85x116-A | Standard |
| VTC 935-4 | 1.060 [27.0] | .710 [18.0] | .950 [24.10] | .512 [13.0] | 1.180 [30.0] | 1.060 [27.0] | .060 [1.50] | .492 [12.5] | .590 [15.0] | .197 [5.0] | TY122x140-A | Optional |
| *Plate Available | | | | | | | | | | | | |
| VTC 1156-4 | 1.260 [32.00] | .710 [18.0] | 1.180 [30.0] | .512 [13.0] | 1.378 [35.0] | 1.240 [31.5] | .080 [2.0] | .492 [12.5] | .590 [15.0] | .295 [7.5] | None | Optional |
| *Plate Available | | | | | | | | | | | | |
| VTC 1227-4 | 1.378 [35.0] | .905 [23.0] | 1.30 [33.0] | .669 [17.0] | 1.457 [37.0] | 1.300 [33.0] | .080 [2.0] | .590 [15.0] | .787 [20.0] | .295 [7.5] | None | Optional |
| *Plate Available | | | | | | | | | | | | |
| VTC 1468-4 | 1.653 [42.0] | 1.100 [28.0] | 1.555 [39.50] | .846 [21.5] | 1.770 [45.0] | 1.660 [42.2] | .080 [2.0] | .984 [25.0] | .984 [25.0] | .295 [7.5] | None | Optional |
| *Plate Available | | | | | | | | | | | | |

VERTICAL TOROID MOUNTS

Phone (800) 694-8089 • Fax (714) 970-0800

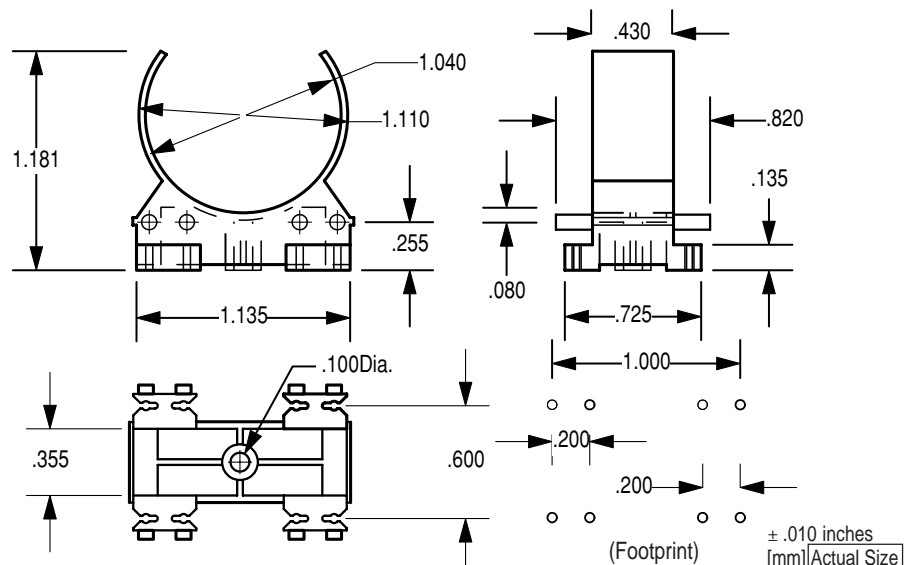
VTM1050-10

Material: Phenolic (Black)
Rating: UL 94-VO
10 Terminals: Copper Wire .040 Dia. (#18 AWG) 100% Tin Plated
Solderability: Per MIL-STD-202 Method 208
Packaging Tray: TY122x140-A
Application: For vertical mounting of wound toroids up to 1.1 inches in diameter requiring up to 10 terminations.



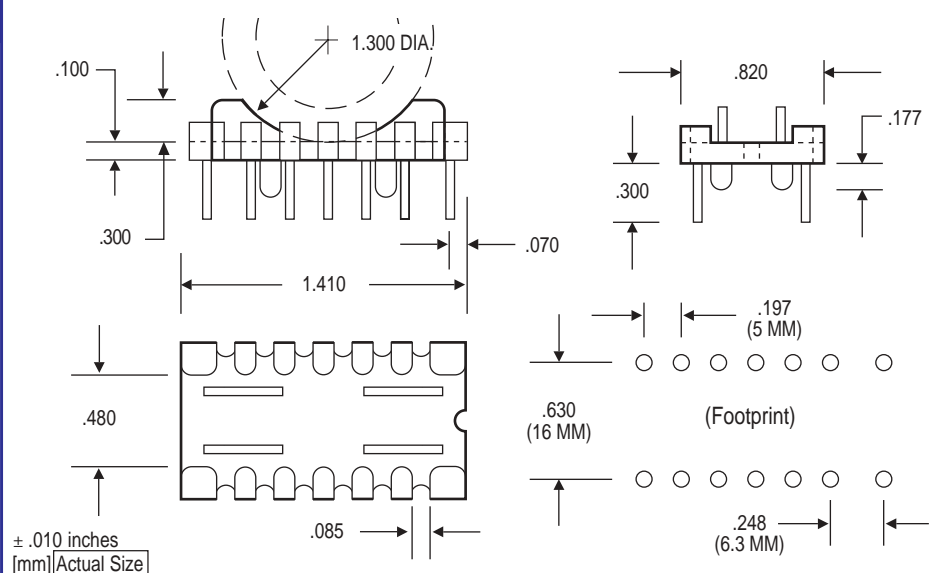
VTM1060-08

Material: Zytel FR50 (Natural)
Rating: UL 94-VO
8 Terminals: Self leading #16 to 18 AWG
Solderability: Per MIL-STD-202 Method 208
Packaging Tray: None
Application: Designed for vertical mounting of 1.06 inch unwound toroids. The mount is designed to have the unwound core placed in the yoke, then to have the wire winding cover the core and yoke, holding the two in a single unit. Up to 8 winding leads are then snapped into the mount base. Best suited for #16 (.048) through #18 (.040) AWG.

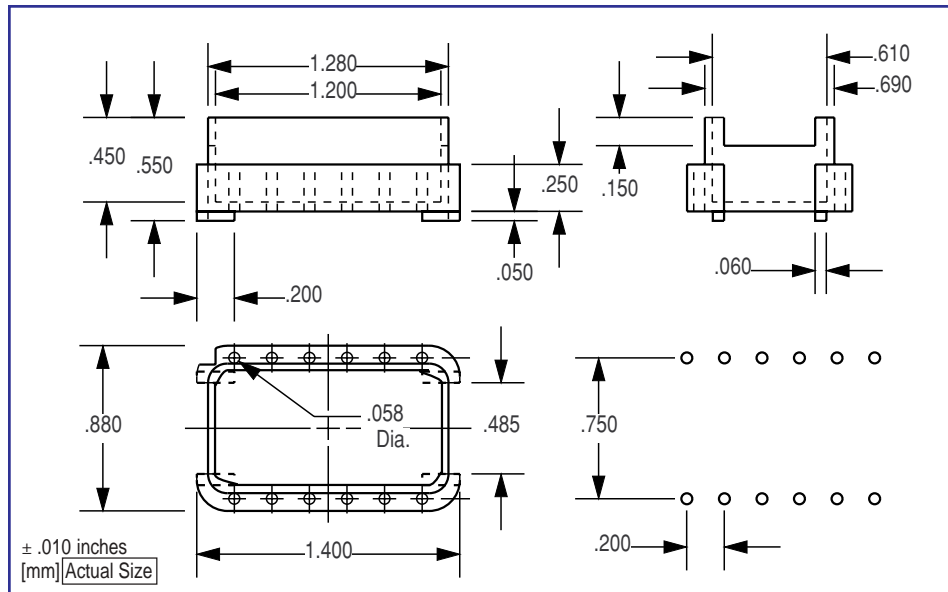


VTM1300-14

Material: Phenolic (Black)
Rating: UL 94-VO
14 Terminals: Copper Wire .040 Dia. (#18 AWG) 100% Tin Plated
Solderability: Per MIL-STD-202 Method 208
Packaging Tray: None
Application: For vertical mounting of wound toroids up to 1.3 inches in diameter requiring up to 14 terminations.



VERTICAL MOUNTS



VTB 1200-012

Material: Rynite (Black)

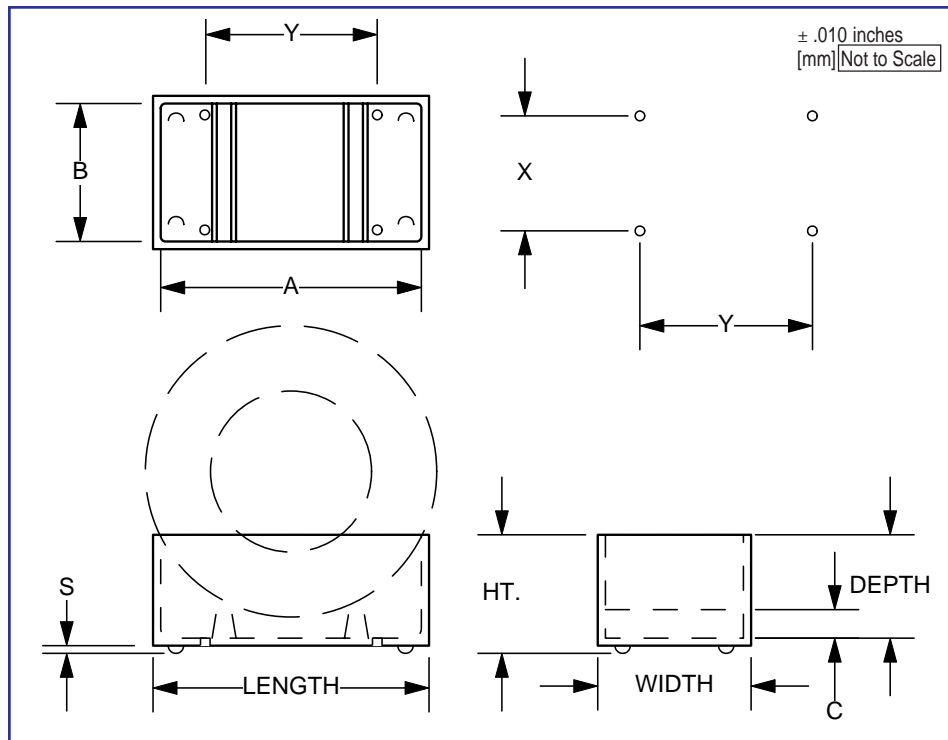
Rating: UL 94-VO
MIL-STD-2000

12 Terminals: Self leading 12 leads up to .054 Dia. (#16AWG)

Solderability: Per MIL-STD-202 Method 208

Packaging Tray: None

Application: For vertical mounting of wound toroids up to 1.40 inches in Dia. The 12 through holes allow self leading of up to 12 component leads. The rectangular cup shape facilitates potting the toroid firmly in place. Formerly VTB1200.



VTB SERIES

Material: DAP (Red & Black)
Rynite (Black)
Nylon 6/6 (Natural)

Rating: UL94-VO

Packaging Tray:
(Cup on side with toroid attached)
VTB700-04 TY85x116-A
VTB900-02 TY122x140-A
VTB1090-04 TY122x140-A
VTB1100-03 None
VTB1350-04 None
VTB1850-04 None
VTB2050-0X None
VTB2200-04 None

Application: For vertical mounting of wound toroids. The toroid leads go through the cup holes for PCB soldering. Potting material or epoxy can be used to hold the toroids in the cups.

VTB800-02 and VTM900-02 have only two terminal holes along the center line.

| PART NO. | LENGTH | WIDTH | A | B | C | HT. | DEPTH | S | Y | X | Mat'l |
|------------|--------------|--------------|--------------|--------------|------------|-------------|-------------|------------|--------------|-------------|--------|
| VTB700-04 | .795 [20.1] | .480 [12.1] | .755 [19.1] | .440 [11.1] | — | .340 [8.6] | .275 [6.9] | .045 [1.1] | .625 [15.8] | .375 [9.5] | Rynite |
| VTB800-02 | .825 [20.9] | .430 [10.9] | .780 [19.8] | .385 [9.8] | — | .295 [7.5] | .230 [5.8] | .035 [8] | .300 [7.6] | ---- | Zytel |
| VTB900-02 | 1.00 [25.4] | .500 [12.7] | .950 [24.1] | .450 [11.4] | — | .420 [10.6] | .375 [9.5] | .020 [5] | .800 [20.3] | ---- | DAP |
| VTB1090-04 | 1.13 [28.7] | .545 [13.8] | 1.08 [27.4] | .490 [12.4] | — | .450 [11.4] | .405 [10.2] | .015 [4] | .800 [20.3] | .400 [10.1] | Rynite |
| VTB1100-03 | 1.135 [28.8] | .695 [17.6] | 1.070 [27.1] | .630 [16.0] | — | .400 [10.1] | .330 [8.4] | .030 [7.6] | .700 [19.5] | .500 [12.7] | DAP |
| VTB1350-04 | 1.435 [36.4] | .795 [20.1] | 1.355 [34.4] | .715 [18.1] | .150 [3.8] | .575 [14.6] | .500 [12.7] | .040 [1.0] | .900 [22.8] | .600 [15.2] | Rynite |
| VTB1850-04 | 1.940 [49.2] | .900 [22.8] | 1.865 [47.3] | .825 [20.9] | .190 [4.8] | .780 [19.8] | .700 [17.7] | .040 [1.0] | 1.200 [30.4] | .700 [17.7] | DAP |
| VTB2050-00 | 2.161 [54.9] | 1.102 [28.0] | 2.080 [52.8] | 1.020 [25.9] | ---- | .512 [13.0] | .342 [8.7] | ---- | ---- | ---- | Zytel |
| VTB2200-04 | 2.290 [58.1] | 1.105 [28.0] | 2.210 [56.1] | 1.025 [26.0] | .150 [3.8] | .920 [23.3] | .840 [21.3] | .040 [1.0] | 1.500 [38.1] | .900 [22.8] | DAP |

ANTISTATIC PARTS TRAYS

Phone (800) 694-8089 • Fax (714) 970-0800

Lodestone Pacific has developed a line of anti-static parts trays for its toroid mounts. Since it is important to protect the terminals of wound components, trays are ideal for handling components during winding, or for delivering the finished component to PCB insertion. The trays nest for ease of transport and storage, or when turned 180°, stack to protect the components in each cavity. There is an optional cover, TY1000-A, that is common to all trays and is priced separately. The cover can be used with each tray, or as the top of a stack of trays. Lodestone Pacific trays are sold separately and toroid mounts are not generally packaged in trays for delivery.

PRODUCTION These trays are ideal for the efficient and organized handling of parts as they move through production and Quality Control. Cavity numbers facilitate the accurate counting of parts during production and packaging. Each tray is designed to have room for a part number sticker, bar code label, or Quality Control Stamp.

SHIPMENT These trays are ideal for the safe clean shipment of completed products. Each tray is 8.75 by 11.75 inches and are designed to fit in a 9 by 12 inch box or carton. Since magnetic devices are heavy for their size, it is important that they are packaged properly. These trays were designed so that a 9 by 12 by 10 inches high box of magnetic components in trays will weigh less than 30 lbs. Boxes and cartons over 30 lbs are more likely to be damaged when shipped by common carrier.

PCB INSERTION These trays provide for the safe and efficient delivery of the components to the PCB insertion operation. Each tray cavity is numbered and each tray can have a part number label, a bar code label and a Quality Control stamp to facilitate acceptance by the package recipient. The trays can be moved to the PCB insertion operation without additional handling where damage can occur, and are ideal for automatic pick and place operations.

ENVIRONMENTAL ISSUES More traditional styrofoam packaging is being discouraged by product recipients because small fragments are a source of contamination, and it is a difficult and costly packaging filler to dispose of. In addition to the Lodestone Pacific trays being anti-static and reusable, they have a material marking that allows effective recycling of the PVC material.

AVAILABILITY The standard trays are available from stock, subject to a \$25 total order minimum, and a \$15 per line minimum. There is no tooling charge for the standard tray. Sample trays for customer evaluation ship the next day.

PRICE: All standard trays are the same price regardless of the number of cavities. This means that the price per cavity of a 100 cavities is half that of a 50 cavity tray. Keep in mind that 1000 trays with 100 cavities is enough for 100,000 parts. In moderate quantities, trays with over 100 cavities will have a packaging cost of less than \$.008 per cavity. Since larger magnetic components are generally more expensive than smaller ones, the percent of packaging cost per part will be similar, even though the number of cavities per tray is lower. Please contact Lodestone Pacific for current tray pricing.

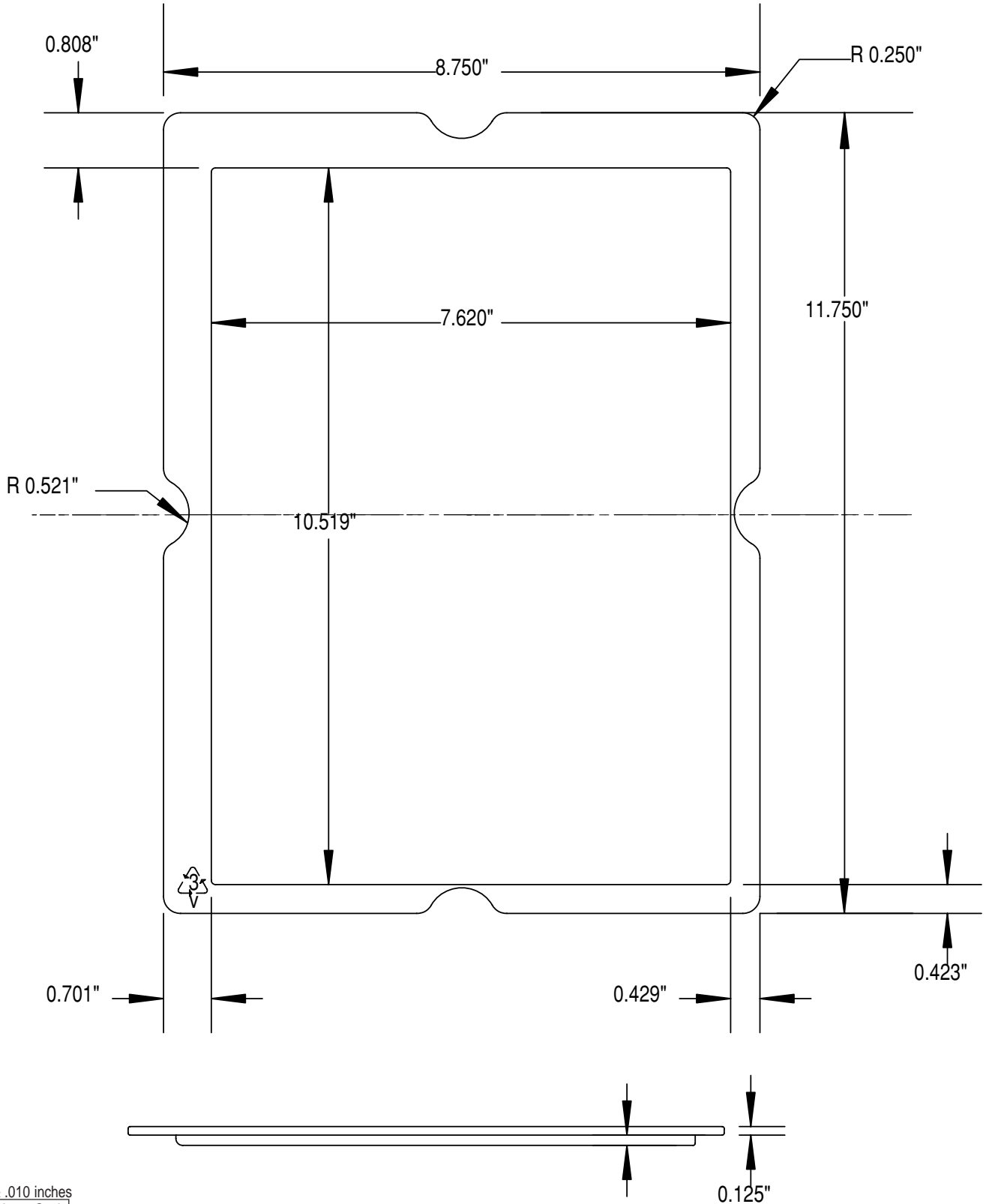
MATERIAL: The trays are formed from clear PVC, and are anti-static to EIA-541. The material will tolerate up to 230°F. There is a higher temperature material available, but will require a quote based on the number of trays required. We can also form these trays in High Impact Styrene (HIPS).

CUSTOM TRAYS: We can create a custom cavity size and array within our standard 8.75 by 11.75 inches tray, or to your specifications. The title block in each tray can be customized with a customer's name and/ or part number. Please contact Lodestone Pacific for a quote of your customer requirements.

Trays for EP, RM, ETD, ER, EFD, EPC, E & Pot cores are being developed.

TY1000-A

Material: PVC (.020 thick)
Rating: Anti-static to EIA-541
Cover for all Trays in Series



± .010 inches
[Not to Scale]

ANTISTATIC TRAYS

ANTISTATIC PARTS TRAYS

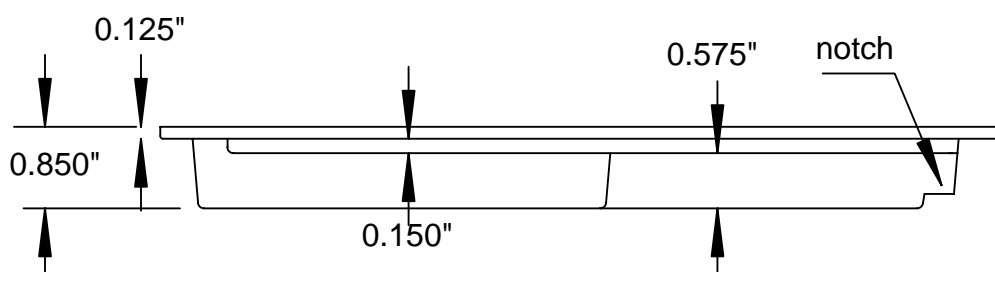
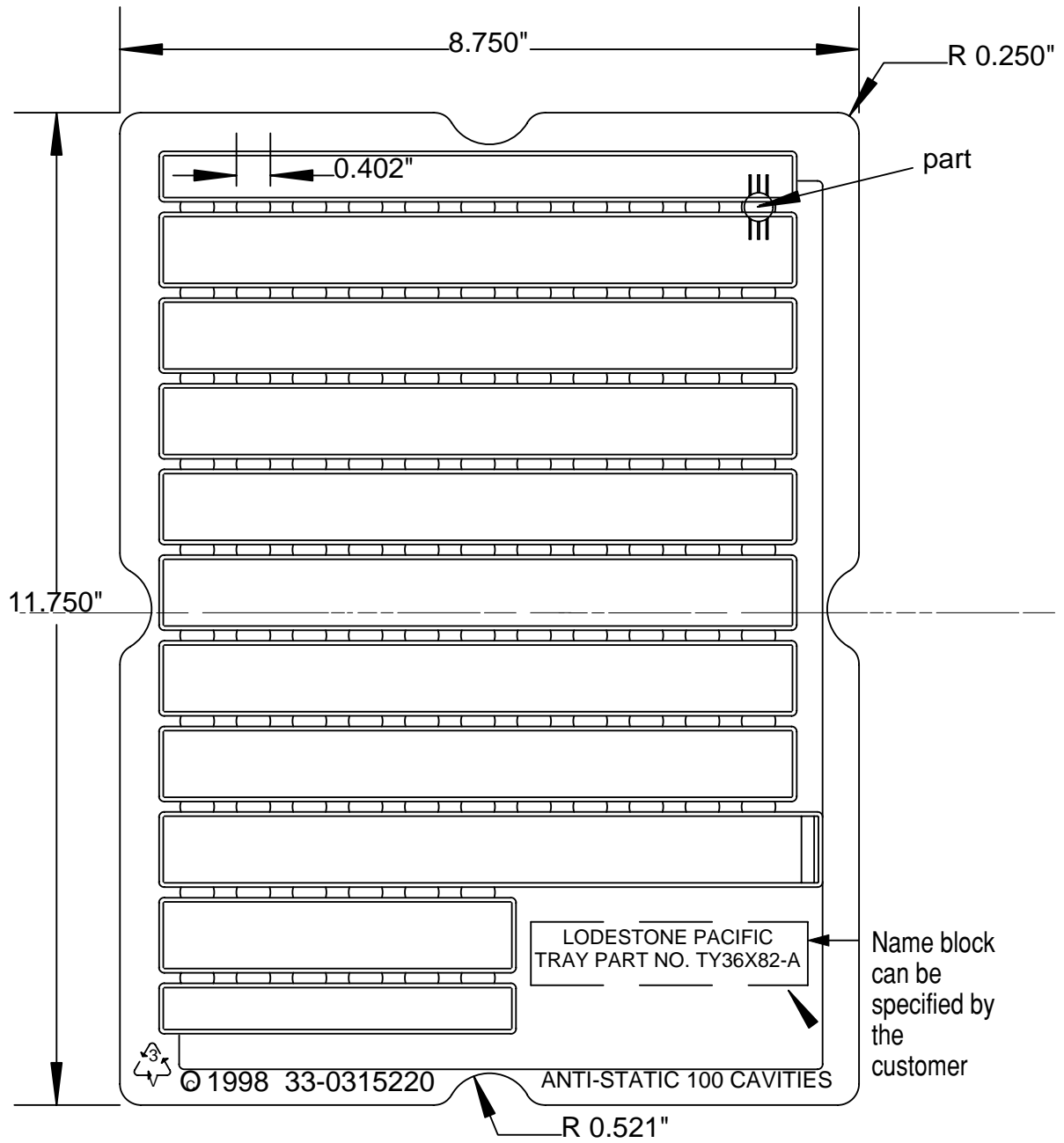
Phone (800) 694-8089 • Fax (714) 970-0800

TY36X82-A

Material: PVC (.020 thick)

Rating: Anti-static to EIA-541

Cavities: 100

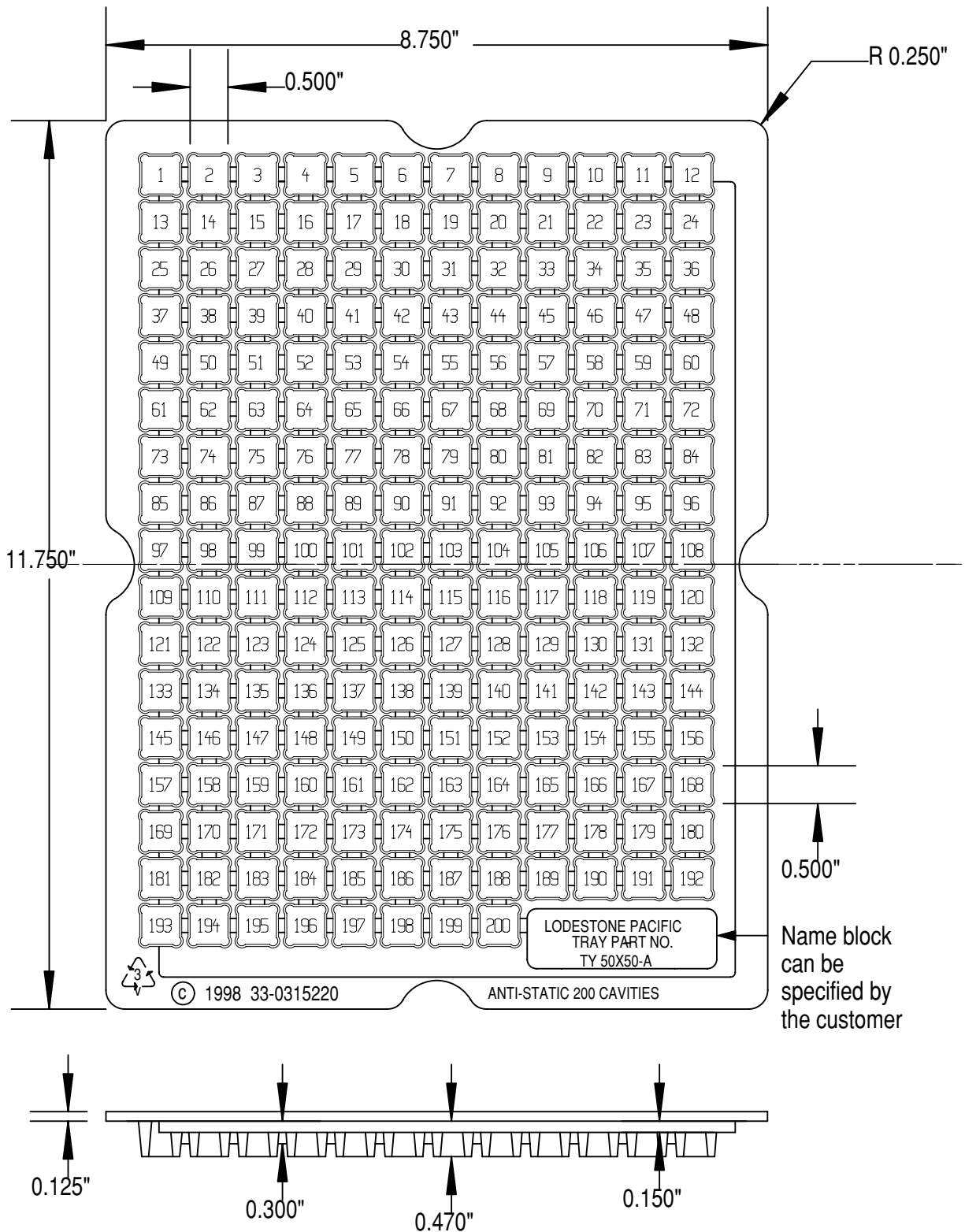


± .010 inches
[Not to Scale]

ANTISTATIC TRAYS

TY50X50-A

Material: PVC (.020 thick)
Rating: Anti-static to EIA-541
Cavities: 200



± .010 inches
[Not to Scale]

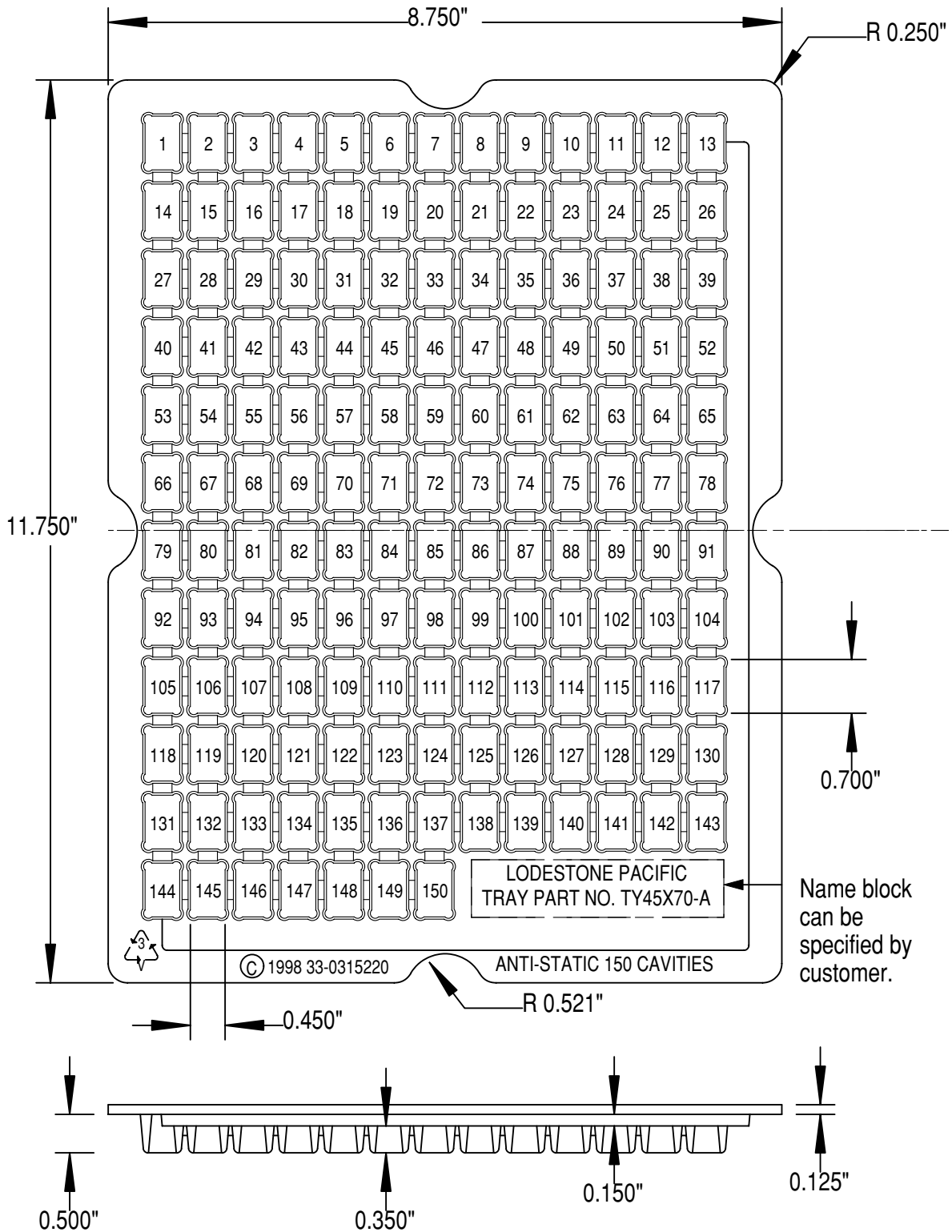
ANTISTATIC TRAYS

ANTISTATIC PARTS TRAYS

Phone (800) 694-8089 • Fax (714) 970-0800

TY45X70-A

Material: PVC (.020 thick)
Rating: Anti-static to EIA-541
Cavities: 150

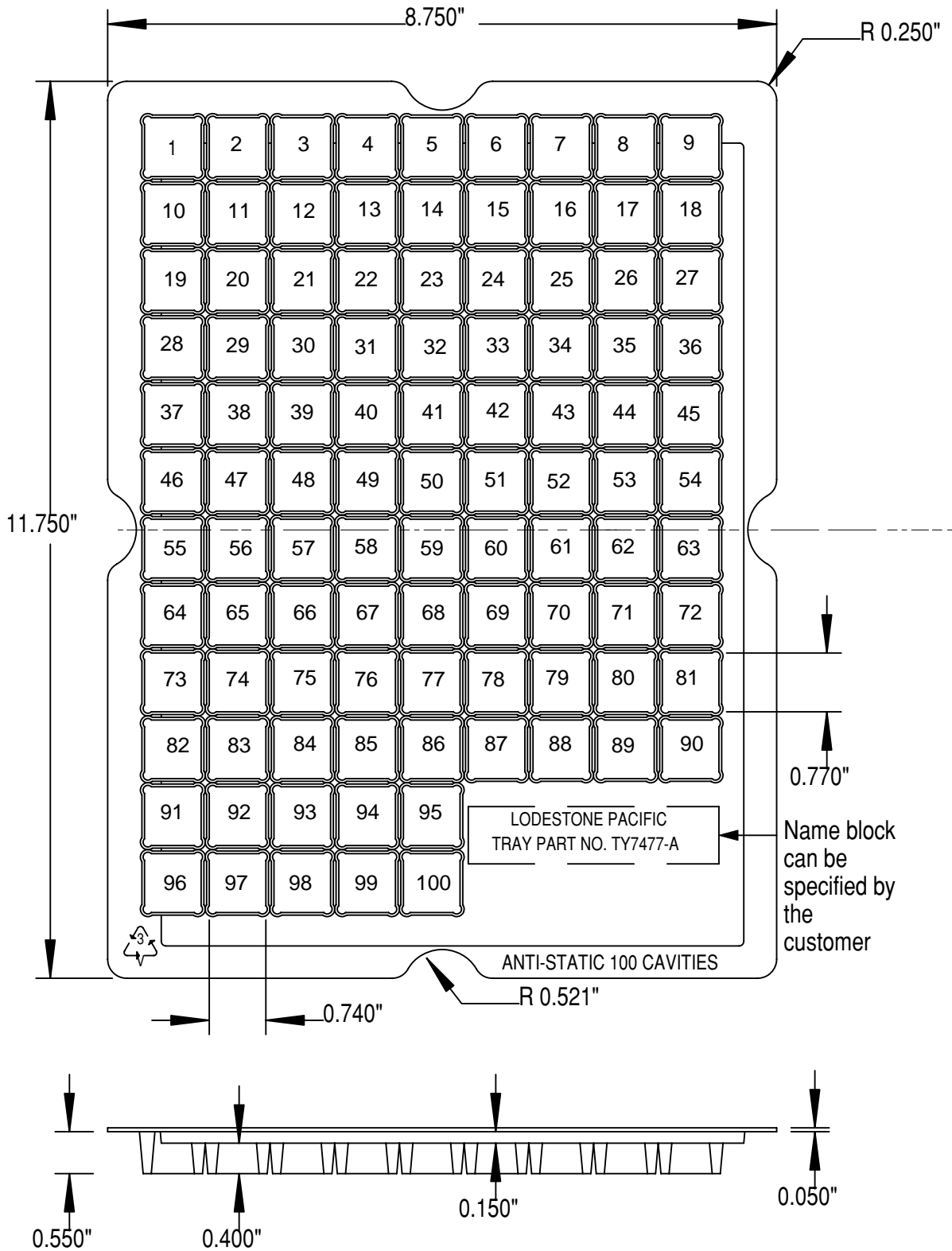


± .010 inches
 [Not to Scale]

ANTISTATIC TRAYS

TY74X77-A

Material: PVC (.020 thick)
Rating: Anti-static to EIA-541
Cavities: 100



± .010 inches
Not to Scale

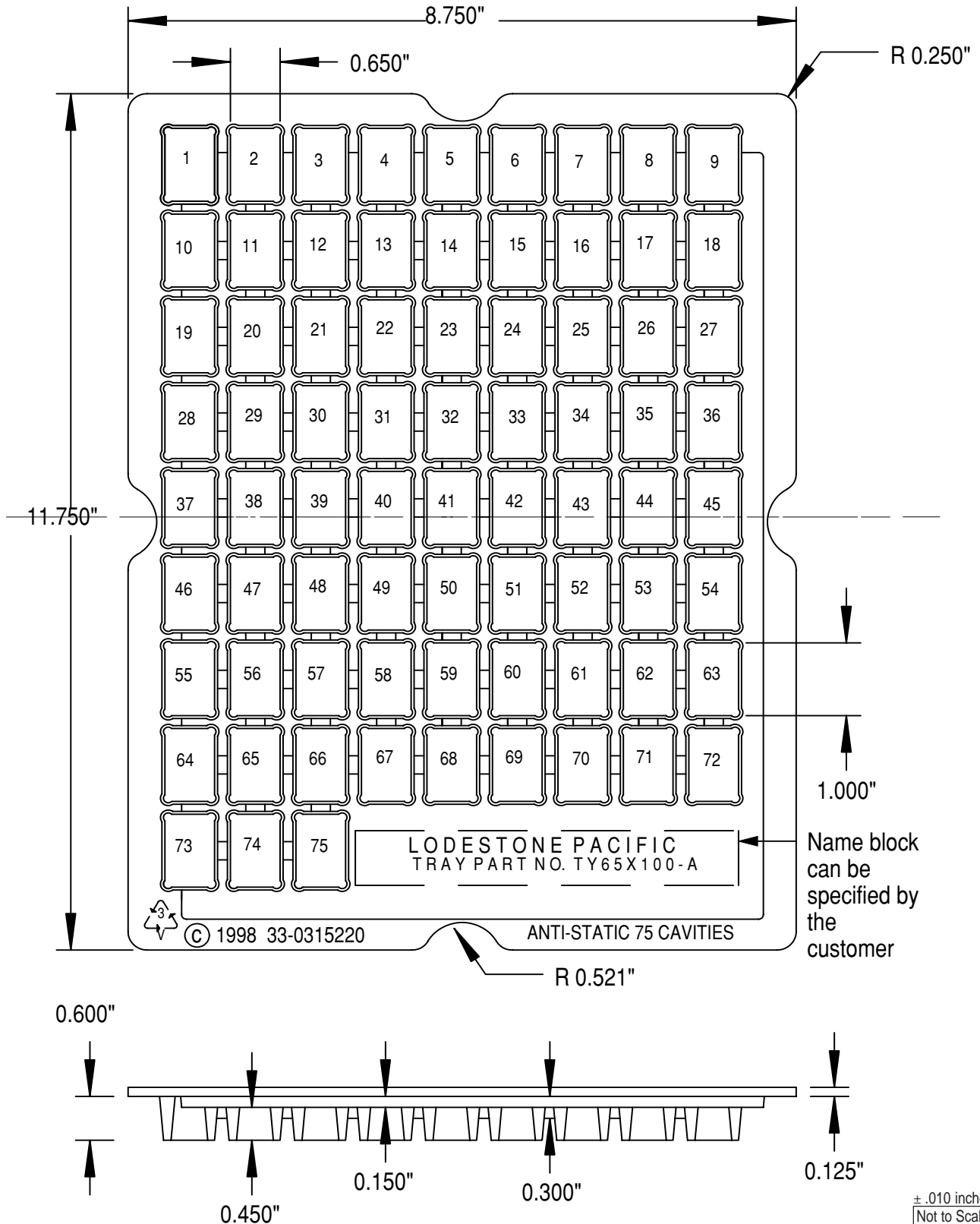
ANTISTATIC TRAYS

ANTISTATIC PARTS TRAYS

Phone (800) 694-8089 • Fax (714) 970-0800

TY65X100-A

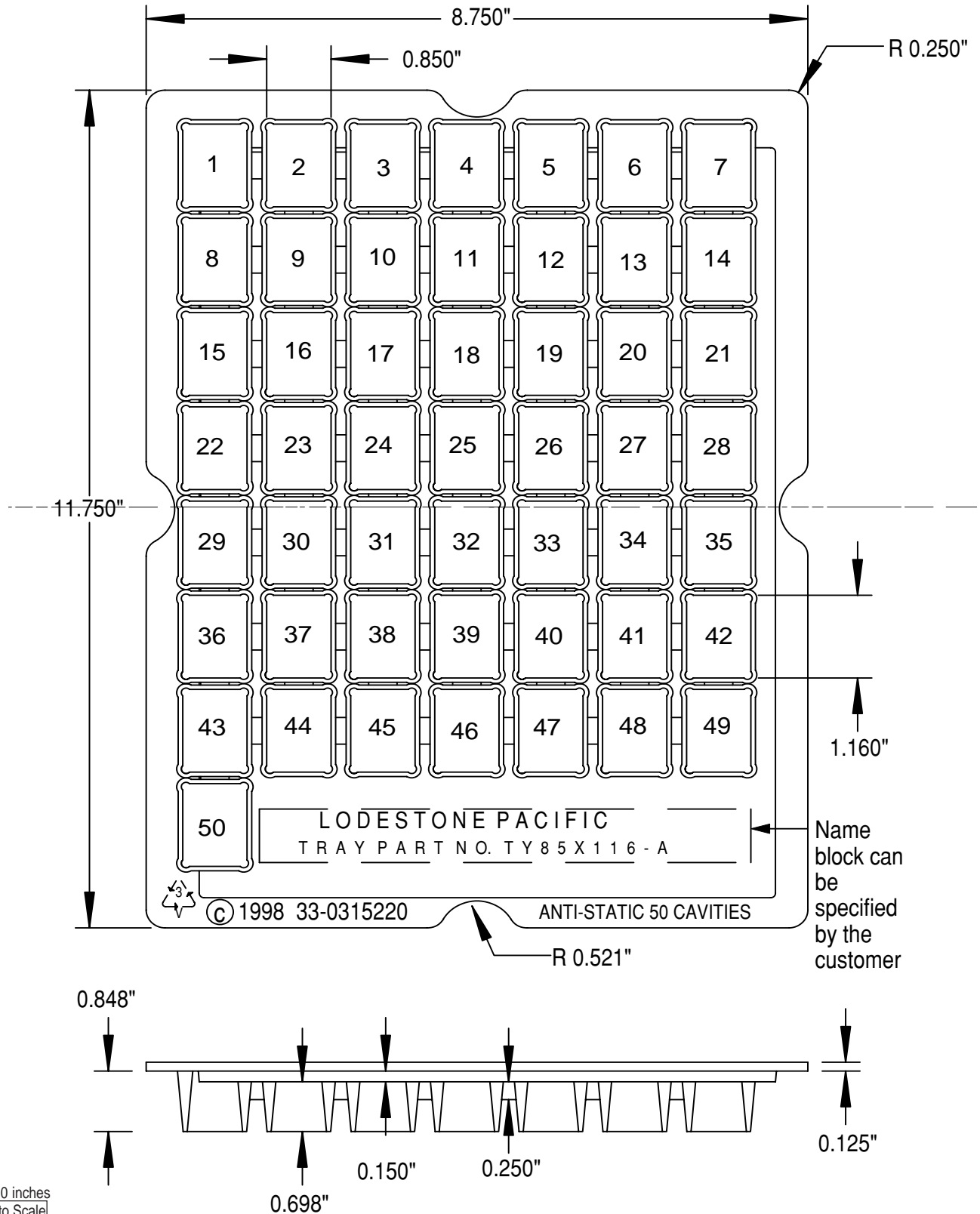
Material: PVC (.020 thick)
Rating: Anti-static to EIA-541
Cavities: 75



ANTISTATIC TRAYS

TY85X116-A

Material: PVC (.020 thick)
Rating: Anti-static to EIA-541
Cavities: 50



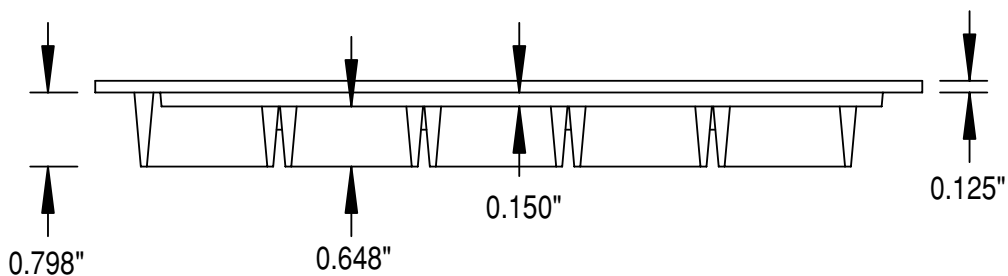
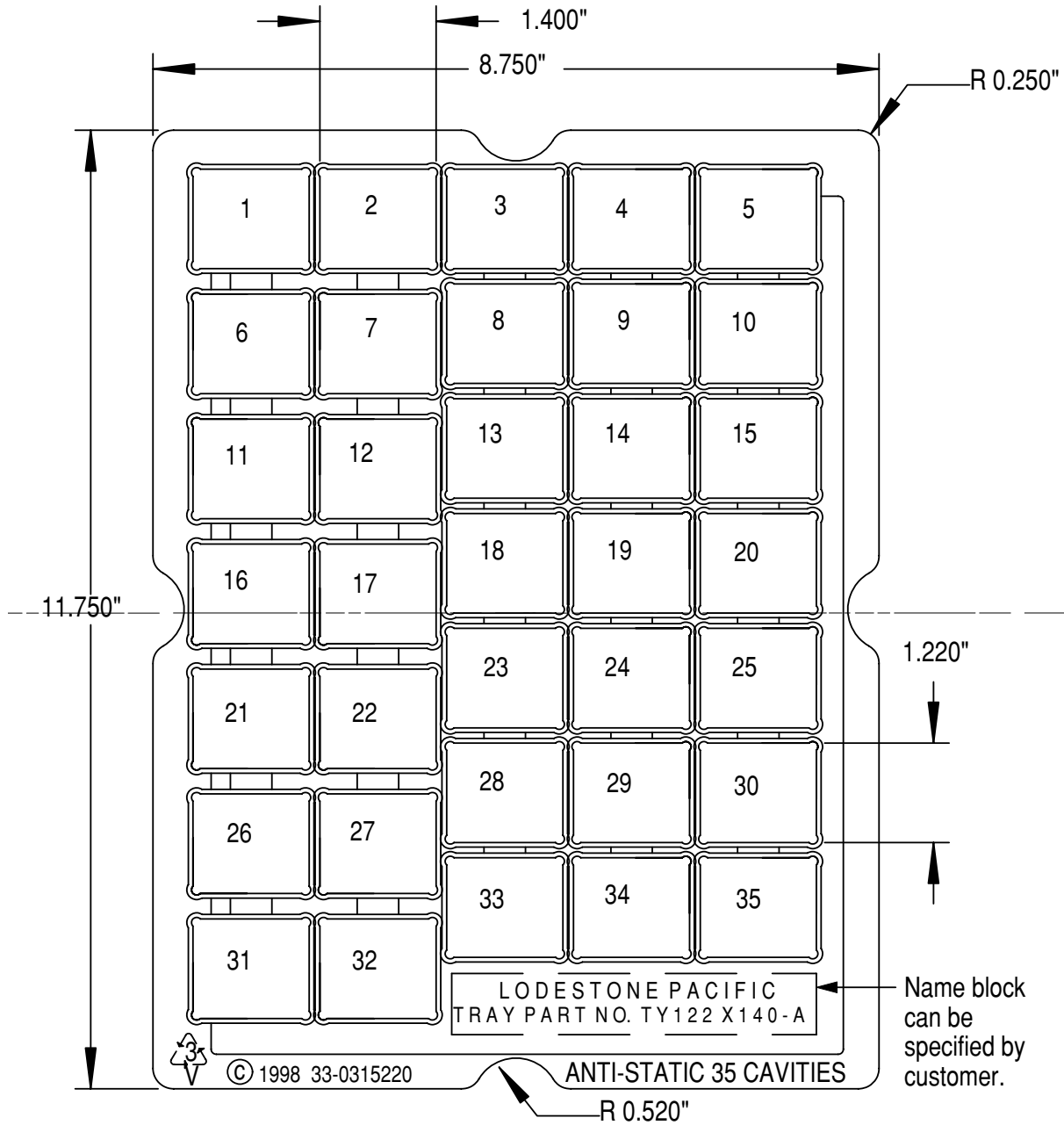
ANTISTATIC TRAYS

ANTISTATIC PARTS TRAYS

Phone (800) 694-8089 • Fax (714) 970-0800

TY122X140-A

Material: PVC (.020 thick)
Rating: Anti-static to EIA-541
Cavities: 35



± .010 inches
 [Not to Scale]

ANTISTATIC TRAYS