



APPLICATIONS

- Impregnated Elements Eliminate Corona
- IGBT Circuits
- Snubber Networks
- Energy Conversion

FEATURES

- Impregnated Polypropylene
- High dv/dt
- Low Self Inductance
- Low ESR

SPECIFICATIONS

| | | | | | | |
|---|-----|--|------|------|--|--|
| Operating Temperature Range | | -40°C to +85°C | | | | |
| Capacitance Tolerance | | +/- 10% at 1kHz, 20°C ±5 optional | | | | |
| AC Voltage | VDC | 1000 | 1250 | 1500 | 2000 | |
| | VAC | 480 | 550 | 630 | 750 | |
| Dissipation Factor tan δ at 1 kHz and 20°C | | 0.05% Max. | | | | |
| Insulation Resistance @20°C(<70% RH) for 1 minute at 500VDC applied | | C ≤ 0.33μF: ≥ 100000 MΩ C > 0.33μF: ≥ 30000 MΩ | | | | |
| Self inductance | | <1 nano-Henry per mm of lead spacing and lead length | | | | |
| Dielectric Strength | | Terminal to Terminal | | | Terminal to Case | |
| | | 250% of VDC applied for 2 Seconds and 20°C | | | 3kVAC at 50/60Hz applied between the terminals and case for 60 seconds and 20°C | |
| Construction | | Impregnated Extended Foil Polypropylene Film | | | | |
| Electrode | | Aluminum Foil | | | | |
| Coating | | Flame Retardant Solvent Resistant Plastic Case with Epoxy Fill | | | | |
| Lead Terminations | | Lead Free Tinned Copper Leads | | | | |

FPL**Boxed Impregnated
Polypropylene Film
with Aluminum
Foil Electrodes****PHYSICAL DIMENSIONS**

| WVDC (μF) (VAC) | 1000 (480) | 1250 (550) | 1500 (630) | 2000 (750) |
|---|------------------------------------|------------------------------------|------------------------------------|-----------------------|
| 0.1 | 32x20x11 | 32x20x11 | 32x20x11 | 41.5x29x17 |
| 0.15 | 32x20x11 | 32x20x11 | 32x20x11 | 45x30x28 |
| 0.22 | 32x24x14 38x33x18 41.5x29x17 | 32x24x14 38x33x18 41.5x29x17 | 32x24x14 38x33x18 41.5x29x17 | 45x30x28 |
| 0.27 | 38x33x18 41.5x29x17 | 38x33x18 41.5x29x17 | 38x33x18 41.5x29x17 | 45x30x28 |
| 0.33 | 38x33x18 41.5x29x17 | 38x33x18 41.5x29x17 | 38x33x18 41.5x29x17 | 45x45x30 |
| 0.39 | 38x33x18 41.5x29x17 | 38x33x18 41.5x29x17 | 38x33x18 41.5x29x17 | 45x45x30 |
| 0.47 | 45x30x28 | 45x30x28 | 45x30x28 | 45x45x30 |
| 0.56 | 45x30x28 | 45x30x28 | 45x30x28 | 54x50x30 |
| 0.68 | 45x30x28 | 45x30x28 | 45x30x28 | 54x50x30 |
| 0.75 | 45x30x28 48x38x24 | 45x30x28 48x38x24 | 45x30x28 48x38x24 | 54x50x43 |
| 0.82 | 45x30x28 | 45x30x28 | 45x30x28 | 54x50x43 |
| 1 | 45x30x28 45x45x30 | 45x45x30 45x30x28 | 45x45x30 | 54x50x43 |
| 1.2 | 45x45x30 | 45x45x30 | 45x45x30 | |
| 1.5 | 45x45x30 | 45x45x30 | 45x45x30 | |
| 1.75 | 54x50x30 | 54x50x30 | 54x50x30 | |
| 2 | 54x50x30 | 54x50x30 | 54x50x30 | |
| 2.2 | 54x50x43 | 54x50x43 | 54x50x43 | |
| 2.5 | 54x50x43 | 54x50x43 | 54x50x43 | |
| 3 | 54x50x43 | 54x50x43 | 54x50x43 | |

Convert to inches, divide by 25.4

LxHxT (mm)

FPL

Boxed Impregnated
Polypropylene Film
with Aluminum
Foil Electrodes

STANDARD PARTS LISTING

| Capacitance (µF) | WVDC | IC PART NUMBER | dv/dt (V/µs) | Maximum RMS Current @100kHz, 70°C in Amps | Typical ESR @100 kHz, +25°C in mΩ | Dimensions LxHxT (mm) |
|------------------|------|----------------|--------------|---|-----------------------------------|-----------------------|
| 0.1 | 1000 | 104FPL102KK2## | 900 | 5.6 | 11.2 | 32x20x11 |
| 0.1 | 1250 | 104FPL122KK2## | 1000 | 5.6 | 11.2 | 32x20x11 |
| 0.1 | 1500 | 104FPL152KK2## | 1100 | 5.6 | 11.2 | 32x20x11 |
| 0.1 | 2000 | 104FPL202KB1## | 1300 | 13.2 | 8.4 | 41.5x29x17 |
| 0.15 | 1000 | 154FPL102KK2## | 900 | 5.7 | 10.8 | 32x20x11 |
| 0.15 | 1250 | 154FPL122KK2## | 1000 | 5.7 | 10.8 | 32x20x11 |
| 0.15 | 1500 | 154FPL152KK2## | 1100 | 5.7 | 10.8 | 32x20x11 |
| 0.15 | 2000 | 154FPL202KB5## | 1200 | 15.11 | 7 | 45x30x28 |
| 0.22 | 1000 | 224FPL102KB1## | 900 | 18.2 | 4.2 | 41.5x29x17 |
| 0.22 | 1000 | 224FPL102KC1## | 900 | 18.2 | 4.2 | 38x33x18 |
| 0.22 | 1000 | 224FPL102KK4## | 900 | 6.8 | 10.4 | 32x24x14 |
| 0.22 | 1250 | 224FPL122KB1## | 1000 | 18.2 | 4.2 | 41.5x29x17 |
| 0.22 | 1250 | 224FPL122KC1## | 1000 | 18.2 | 4.2 | 38x33x18 |
| 0.22 | 1250 | 224FPL122KK4## | 1000 | 6.8 | 10.4 | 32x24x14 |
| 0.22 | 1500 | 224FPL152KB1## | 1100 | 18.2 | 4.2 | 41.5x29x17 |
| 0.22 | 1500 | 224FPL152KC1## | 1100 | 18.2 | 4.2 | 38x33x18 |
| 0.22 | 1500 | 224FPL152KK4## | 1100 | 6.8 | 10.4 | 32x24x14 |
| 0.22 | 2000 | 224FPL202KB5## | 1200 | 19.8 | 4.5 | 45x30x28 |
| 0.27 | 1000 | 274FPL102KB1## | 900 | 18.7 | 4 | 41.5x29x17 |
| 0.27 | 1000 | 274FPL102KC1## | 900 | 18.7 | 4 | 38x33x18 |
| 0.27 | 1250 | 274FPL122KB1## | 1000 | 18.7 | 4 | 41.5x29x17 |
| 0.27 | 1250 | 274FPL122KC1## | 1000 | 18.7 | 4 | 38x33x18 |
| 0.27 | 1500 | 274FPL152KB1## | 1100 | 18.7 | 4 | 41.5x29x17 |
| 0.27 | 1500 | 274FPL152KC1## | 1100 | 18.7 | 4 | 38x33x18 |
| 0.27 | 2000 | 274FPL202KB5## | 1200 | 21.7 | 4.3 | 45x30x28 |
| 0.33 | 1000 | 334FPL102KB1## | 900 | 19.7 | 3.7 | 41.5x29x17 |
| 0.33 | 1000 | 334FPL102KC1## | 900 | 19.7 | 3.7 | 38x33x18 |
| 0.33 | 1250 | 334FPL122KB1## | 1000 | 19.7 | 3.7 | 41.5x29x17 |
| 0.33 | 1250 | 334FPL122KC1## | 1000 | 19.7 | 3.7 | 38x33x18 |
| 0.33 | 1500 | 334FPL152KB1## | 1100 | 19.7 | 3.7 | 41.5x29x17 |
| 0.33 | 1500 | 334FPL152KC1## | 1100 | 19.7 | 3.7 | 38x33x18 |
| 0.33 | 2000 | 334FPL202KB3## | 1200 | 22.2 | 4.1 | 45x45x30 |
| 0.39 | 1000 | 394FPL102KB1## | 900 | 20.6 | 3.7 | 41.5x29x17 |
| 0.39 | 1000 | 394FPL102KC1## | 900 | 20.6 | 3.5 | 38x33x18 |
| 0.39 | 1250 | 394FPL122KB1## | 1000 | 20.6 | 3.7 | 41.5x29x17 |
| 0.39 | 1250 | 394FPL122KC1## | 1000 | 20.6 | 3.5 | 38x33x18 |
| 0.39 | 1500 | 394FPL152KB1## | 1100 | 20.6 | 3.7 | 41.5x29x17 |
| 0.39 | 1500 | 394FPL152KC1## | 1100 | 20.6 | 3.5 | 38x33x18 |
| 0.39 | 2000 | 394FPL202KB3## | 1200 | 22.5 | 4 | 45x45x30 |
| 0.47 | 1000 | 474FPL102KB5## | 900 | 21.1 | 3.5 | 45x30x28 |
| 0.47 | 1250 | 474FPL122KB5## | 1000 | 21.1 | 3.5 | 45x30x28 |
| 0.47 | 1500 | 474FPL152KB5## | 1100 | 21.1 | 3.5 | 45x30x28 |
| 0.47 | 2000 | 474FPL202KB3## | 1200 | 22.5 | 4 | 45x45x30 |
| 0.56 | 1000 | 564FPL102KB5## | 800 | 21.3 | 3.5 | 45x30x28 |
| 0.56 | 1250 | 564FPL122KB5## | 1000 | 21.3 | 3.5 | 45x30x28 |

| Capacitance (µF) | WVDC | IC PART NUMBER | dv/dt (V/µs) | Maximum RMS Current @100kHz, 70°C in Amps | Typical ESR @100 kHz, +25°C in mΩ | Dimensions LxHxT (mm) |
|------------------|------|----------------|--------------|---|-----------------------------------|-----------------------|
| 0.56 | 1500 | 564FPL152KB5## | 1000 | 21.3 | 3.5 | 45x30x28 |
| 0.56 | 2000 | 564FPL202KB4## | 1000 | 22.7 | 3.8 | 54x50x30 |
| 0.68 | 1000 | 684FPL102KB5## | 800 | 21.3 | 3.2 | 45x30x28 |
| 0.68 | 1250 | 684FPL122KB5## | 900 | 21.3 | 3.2 | 45x30x28 |
| 0.68 | 1500 | 684FPL152KB5## | 1000 | 21.3 | 3.2 | 45x30x28 |
| 0.68 | 2000 | 684FPL202KB4## | 1000 | 22.8 | 3.7 | 54x50x30 |
| 0.75 | 1000 | 754FPL102KB2## | 800 | 25.6 | 3 | 48x38x24 |
| 0.75 | 1000 | 754FPL102KC5## | 800 | 25.6 | 3 | 45x30x28 |
| 0.75 | 1250 | 754FPL122KB2## | 900 | 25.6 | 3 | 48x38x24 |
| 0.75 | 1250 | 754FPL122KC5## | 900 | 25.6 | 3 | 45x30x28 |
| 0.75 | 1500 | 754FPL152KB2## | 1000 | 25.6 | 3 | 48x38x24 |
| 0.75 | 1500 | 754FPL152KC5## | 1000 | 25.6 | 3 | 45x30x28 |
| 0.75 | 2000 | 754FPL202KC2## | 800 | 23.2 | 3.4 | 54x50x43 |
| 0.82 | 1000 | 824FPL102KB5## | 800 | 26 | 3 | 45x30x28 |
| 0.82 | 1250 | 824FPL122KB5## | 900 | 26 | 3 | 45x30x28 |
| 0.82 | 1500 | 824FPL152KB5## | 1000 | 26 | 3 | 45x30x28 |
| 0.82 | 2000 | 824FPL202KC2## | 800 | 23.2 | 3.3 | 54x50x43 |
| 1 | 1000 | 105FPL102KB3## | 800 | 26 | 3 | 45x45x30 |
| 1 | 1000 | 105FPL102KC5## | 900 | 26 | 3 | 45x30x28 |
| 1 | 1250 | 105FPL122KB3## | 1000 | 26 | 3 | 45x45x30 |
| 1 | 1250 | 105FPL122KC5## | 900 | 26 | 3 | 45x30x28 |
| 1 | 1500 | 105FPL152KB3## | 1000 | 26 | 3 | 45x45x30 |
| 1 | 2000 | 105FPL202KC2## | 800 | 23.2 | 3.2 | 54x50x43 |
| 1.2 | 1000 | 125FPL102KB3## | 800 | 26 | 2.5 | 45x45x30 |
| 1.2 | 1250 | 125FPL122KB3## | 900 | 26 | 2.5 | 45x45x30 |
| 1.2 | 1500 | 125FPL152KB3## | 1000 | 26 | 2.5 | 45x45x30 |
| 1.5 | 1000 | 155FPL102KB3## | 800 | 26 | 2.5 | 45x45x30 |
| 1.5 | 1250 | 155FPL122KB3## | 900 | 26 | 2.5 | 45x45x30 |
| 1.5 | 1500 | 155FPL152KB3## | 1000 | 26 | 2.5 | 45x45x30 |
| 1.75 | 1000 | 175FPL102KB4## | 500 | 28 | 2.5 | 54x50x30 |
| 1.75 | 1250 | 175FPL122KB4## | 600 | 28 | 2.5 | 54x50x30 |
| 1.75 | 1500 | 175FPL152KB4## | 700 | 28 | 2.5 | 54x50x30 |
| 2 | 1000 | 205FPL102KB4## | 500 | 28.2 | 2.5 | 54x50x30 |
| 2 | 1250 | 205FPL122KB4## | 600 | 28.2 | 2.5 | 54x50x30 |
| 2 | 1500 | 205FPL152KB4## | 700 | 28.2 | 2.5 | 54x50x30 |
| 2.2 | 1000 | 225FPL102KC2## | 400 | 28.5 | 2.4 | 54x50x43 |
| 2.2 | 1250 | 225FPL122KC2## | 500 | 28.5 | 2.4 | 54x50x43 |
| 2.2 | 1500 | 225FPL152KC2## | 600 | 28.5 | 2.4 | 54x50x43 |
| 2.5 | 1000 | 255FPL102KC2## | 400 | 29 | 2.2 | 54x50x43 |
| 2.5 | 1250 | 255FPL122KC2## | 500 | 29 | 2.2 | 54x50x43 |
| 2.5 | 1500 | 255FPL152KC2## | 600 | 29 | 2.2 | 54x50x43 |
| 3 | 1000 | 305FPL102KC2## | 400 | 30 | 2 | 54x50x43 |
| 3 | 1250 | 305FPL122KC2## | 500 | 30 | 2 | 54x50x43 |
| 3 | 1500 | 305FPL152KC2## | 600 | 30 | 2 | 54x50x43 |



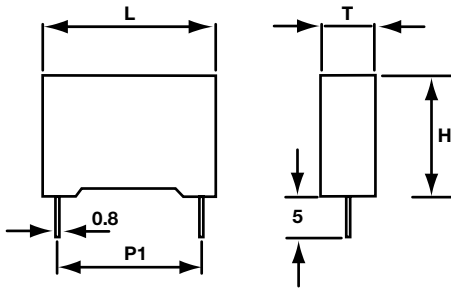
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LEAD STYLES

| Case code | L +/-1.0 | H +/-1.0 | T +/-1.0 | P1 +/-0.5 | P2 | Terminal styles |
|-----------|-------------|-------------|-------------|--------------|------|-----------------|
| K2 | 32 | 20 | 11 | 27.5 | | DL |
| K3 | 32 | 22 | 13 | 27.5 | | DL |
| K4 | 32 | 24 | 14 | 27.5 | | DL |
| B1 | 41.4 | 29 | 17 | 32.5,39 | | DL,FT,2P |
| B1 | 41.5 | 29 | 17 | 25.5 | 8.5 | TL,RL,STL,SL |
| B1 | 41.5 | 29 | 17 | 25.5 | 11.5 | MTL |
| B2 | 48 | 38 | 24 | 27 | 11.5 | TL,RL,STL,SL |
| B2 | 48 | 38 | 24 | 39 | | FT |
| B2 | 48 | 38 | 24 | 27 | 13 | MTL |
| B3 | 45 | 45 | 30 | 39 | | FT,2P |
| B3 | 45 | 45 | 30 | 27 | 11.5 | ST,TL,RL,STL |
| B3 | 45 | 45 | 30 | 27 | 13 | MTL |
| B4 | 54 | 50 | 30 | 27 | 11.5 | TL,RL,STL,SL |
| B4 | 54 | 50 | 30 | 48 | | 3P |
| B4 | 54 | 50 | 30 | 55 | 28 | CL |
| B4 | 54 | 50 | 30 | 27 | 13 | MTL |
| B5 | 45 | 30 | 28 | 27 | 11.5 | TL,RL,STL,SL |
| B5 | 45 | 30 | 28 | 27 | 13.5 | MTL |
| B5 | 45 | 30 | 28 | 39 | | FT,2P |
| C1 | 38 | 38 | 18 | | | CR,CT,AB |
| C2 | 54 | 50 | 43 | 27 | 11.5 | TL,RL,STL,SL |
| C2 | 54 | 50 | 43 | 27 | 13.5 | MTL |
| C2 | 54 | 50 | 43 | 55 | 28 | CL |
| C2 | 54 | 50 | 43 | 48 | | 4P, CT |

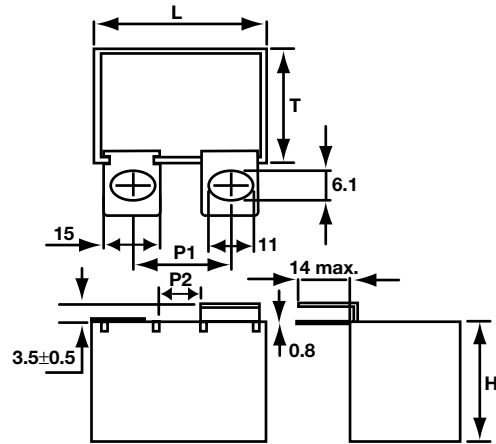
DIMENSIONAL DETAILS AND TERMINAL OPTIONS

Terminal Style: DL



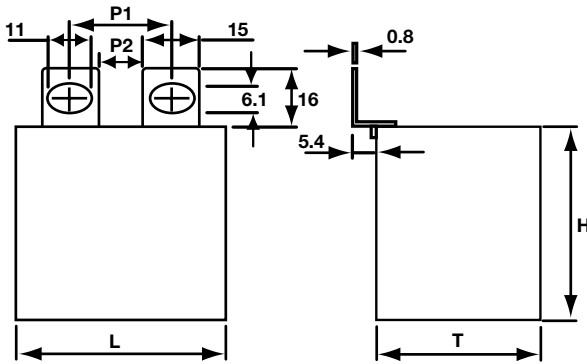
CASE CODE: K2, K3, K4
FOR DETAILS SEE CASE CODE TABLE

Terminal Style: SL



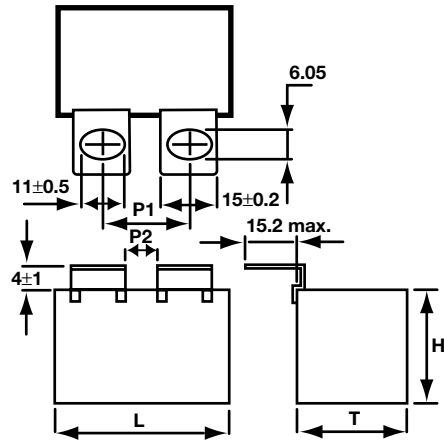
CASE CODE: B1, B2, B3, B4, B5, C2
FOR DETAILS SEE CASE CODE TABLE

Terminal Style: TL



CASE CODE: B1, B2, B3, B4, B5, C2
FOR DETAILS SEE CASE CODE TABLE

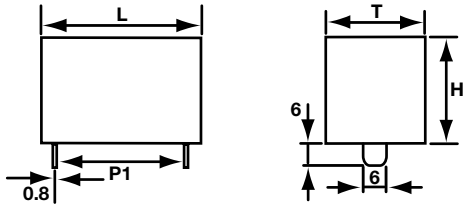
Terminal Style: RL



CASE CODE: B1, B2, B3, B4, B5, C2
FOR DETAILS SEE CASE CODE TABLE

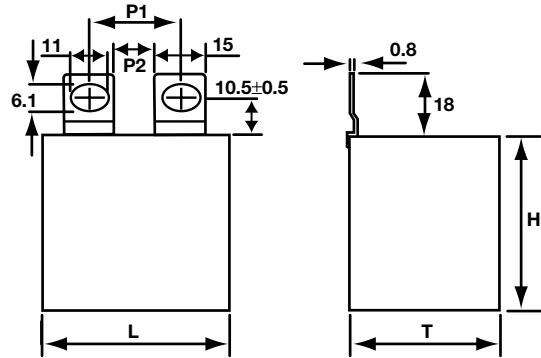
DIMENSIONAL DETAILS AND TERMINAL OPTIONS

Terminal Style: FT



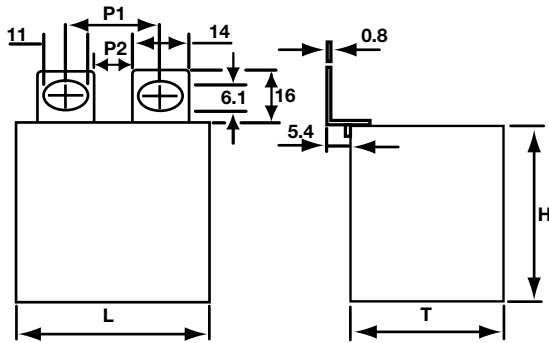
CASE CODE: B1, B2, B5
FOR DETAILS SEE CASE CODE TABLE

Terminal Style: STL



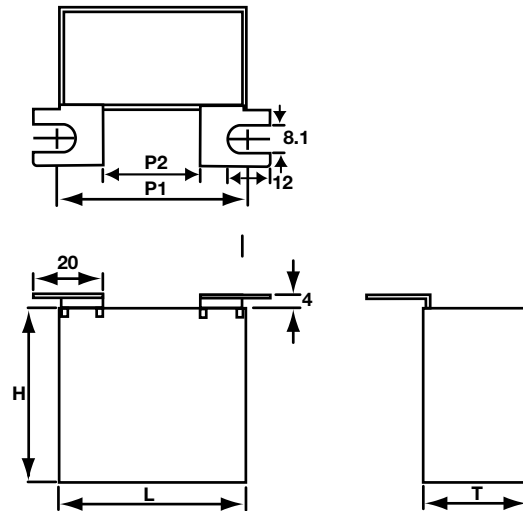
CASE CODE: B1, B2, B3, B4, B5, C2
FOR DETAILS SEE CASE CODE TABLE

Terminal Style: MTL



CASE CODE: B1, B2, B3, B4, B5, C2
FOR DETAILS SEE CASE CODE TABLE

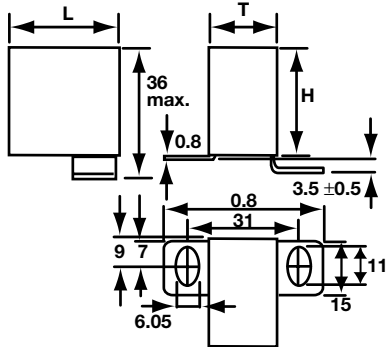
Terminal Style: CL



CASE CODE: B4, C2
FOR DETAILS SEE CASE CODE TABLE

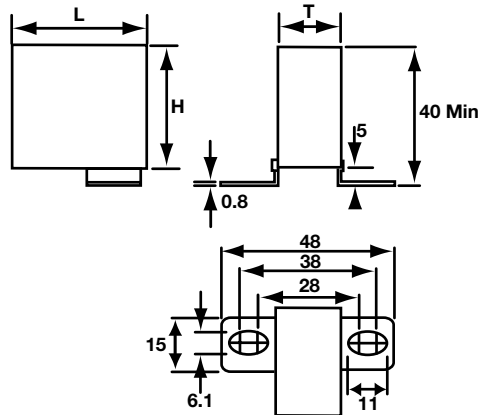
DIMENSIONAL DETAILS AND TERMINAL OPTIONS

Terminal Style: CT

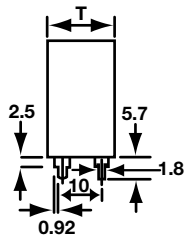


CASE CODE: C2
FOR DETAILS SEE CASE CODE TABLE

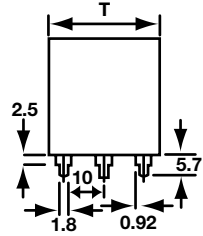
Terminal Style: CR



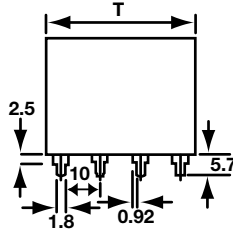
CASE CODE: C1
FOR DETAILS SEE CASE CODE TABLE



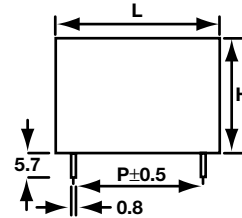
Terminal Style: 2P
CASE CODE: B1, B2, B3, B5



Terminal Style: 3P
CASE CODE: B4



Terminal Style: 4P
CASE CODE: C2



FOR DETAILS SEE CASE CODE TABLE