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# PolySwitch® PTC Devices

**Overcurrent Protection Device**

**PRODUCT: TSM600-250**

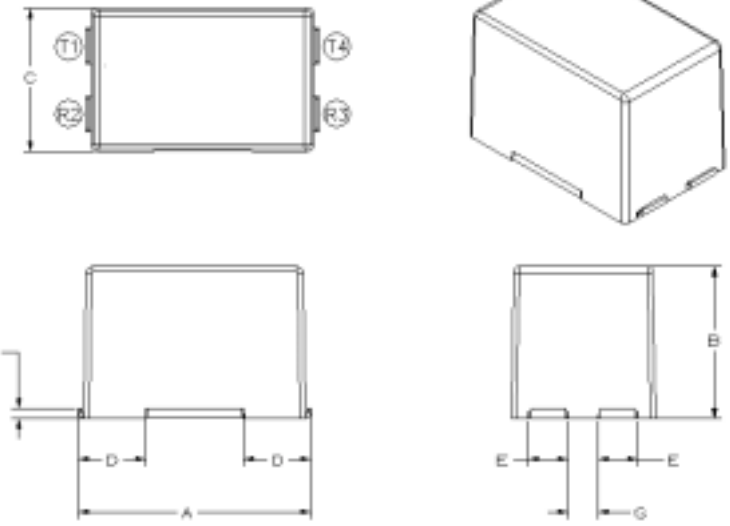
DOCUMENT: SCD 24938
PCN: 244012
REV LETTER: B
REV DATE: APRIL 16, 2002
PAGE NO.: 1 OF 1

## Specification Status: RELEASED

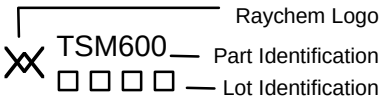
### Max Electrical Rating at 20°C

**Operating Voltage: $250V_{DC}$**
**Fault Voltage: $600V_{RMS}$**
**Interrupt Current: $3A_{RMS}$**

Lead Material: Tin plated brass
Configuration: Two PPTC devices per TSM600 part
Case Material: Nylon Resin (UL94 V-0)
1000V dielectric rating




Marking:




Terminal Description:
T1 = Tip In T4 = Tip Out
R2 = Ring In R3 = Ring Out

**TABLE I. DIMENSIONS:**

| | A | | B | | C | | D | | E | | F | | G | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX |
| mm: | 17.0 | 17.6 | 11.2 | 11.7 | 10.4 | 11.2 | 4.8 | 5.2 | 2.5 | 2.8 | 0.6 | 1.0 | 2.0 | 3.1 |
| in: | (0.671) | (0.691) | (0.440) | (0.460) | (0.410) | (0.440) | (0.187) | (0.203) | (0.099) | (0.111) | (0.022) | (0.038) | (0.080) | (0.122) |

**TABLE II. PERFORMANCE RATINGS @ 20°C (unless otherwise noted):**

| IHOLD (mA) | | RESISTANCE (Ω)** @ 20° C | | | TIME TO TRIP @ 3 A (Seconds) | | OPERATING TEMPERATURE (°C) | | Tripped state Power Dissipation @ 250V |
|---|---|---|---|---|---|---|---|---|---|
| 20°C | 60°C | R MIN | R TYP | $R_{1\ MAX}$* | TYP | MAX | MIN | MAX | (Watts) TYPICAL |
| 250 | 140 | 1.0 | 3.5 | 7.0 | 0.8 | 6 | -40 | 85 | 2 |

* Maximum device resistance, measured 1-hour post reflow or post trip.
** Resistance per PPTC device.

Additional Ratings @ 20°C

| | | | |
|---|---|---|---|
| Resistance Matched: | 0.5 Ohm measured 24 hours after reflow installation | Storage Temperature: | -40° to 85° C |
| Line Balance: | 0.5 Ohm, 59 dB @ 4 kHz minimum*** | Storage Humidity: | Per IPC/JEDEC J-STD-020A Level 2a |

***Tested in accordance with IEEE 455 with a device having a series longitudinal balance value of at least 60dB

Agency Recognition: UL, CSA
Reference Documents: PS300
Precedence: This specification takes precedence over documents referenced herein.
Effectivity: Reference documents shall be the issue in effect on the date of invitation for bid.