

# PolySwitch® PTC Devices

Overcurrent Protection Device

**PRODUCT: TSM600-250F-RA**

DOCUMENT: SCD26007  
PCN: A88390-000  
REV LETTER: E  
REV DATE: MAY 10, 2011  
PAGE NO.: 1 OF 1

## Specification Status: RELEASED

### Max Electrical Rating at 20°C

**Operating Voltage: 250V<sub>DC</sub>**

**Interrupt Current: 3A<sub>RMS</sub>**

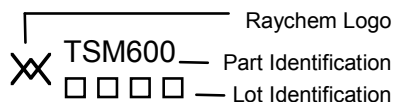
**Fault Voltage: 600V<sub>RMS</sub>**

Lead Material: Tin plated brass

Configuration: Two PPTC devices per  
TSM600 part

Case Material: Nylon Resin (UL94 V-0)  
1000V dielectric rating

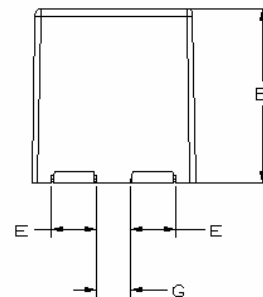
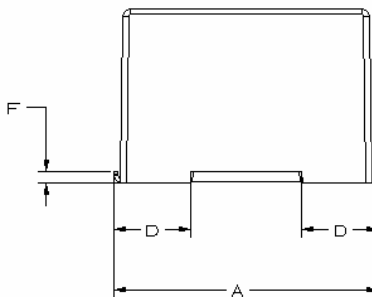
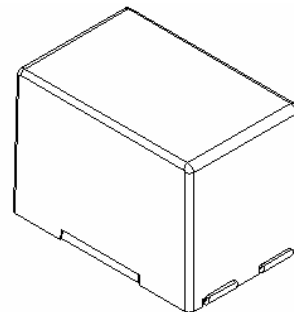
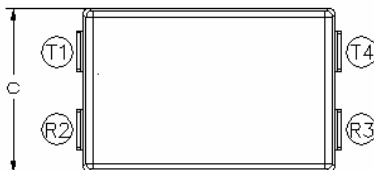
Marking:



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	2.2	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)	(0.087)	(0.122)

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

I <sub>HOLD</sub> (A)		RESISTANCE (Ω)** @ 20° C			TIME TO TRIP @ 3 A (Seconds)		OPERATING TEMPERATURE (°C)		Tripped State Power Dissipation @ 250V (Watts) TYPICAL
20°C	60°C	R MIN	R TYP	R <sub>1</sub> MAX*	TYP	MAX	MIN	MAX	
0.250	0.140	1.0	3.0	5.0	1	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 Recognitions: 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.

### MATERIALS INFORMATION

**ROHS Compliant**

Directive 2002/95/EC  
Compliant

**ELV Compliant**

Directive 2000/53/EC  
Compliant

**Pb-Free**

