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EVERFUSE®
Polymeric PTC Resistor

Device Specification

ELECTRICAL CHARACTERISTICS

RoHS Halogen Free

Part Number	I_{hold} (A)	I_{trip} (A)	V_{max} (Vdc)	I_{max} (A)	$P_{d\ typ}$ (W)	Maximum Time To Trip		Resistance	
						Current (A)	Time (Sec.)	R_{min} (Ω)	R_{1max} (Ω)
SPR-P260T	2.60	5.20	6	50	0.6	8.0	4.0	0.010	0.035

Note: I_{hold} = Hold current: maximum current device will pass without tripping in 23°C still air.

I_{trip} = Trip current: minimum current at which the device will trip in 23°C still air.

V_{max} = Maximum voltage device can withstand without damage at rated current (I_{max})

I_{max} = Maximum fault current device can withstand without damage at rated voltage (V_{max})

P_d = Power dissipated from device when in the tripped state at 23°C still air.

R_{min} = Minimum resistance of device in initial (un-soldered) state.

R_{1max} = Maximum resistance of device at 23°C measured one hour after tripping or reflow soldering of 260°C for 20 sec.

***Value specified were determined using the PWB with 0.030"*1.5oz copper traces.**

***Customer should verify the device performance in their specified conditions.**

Caution: Operation beyond the specified rating may result in damage and possible arcing and flame.

Recognitions: c UL us

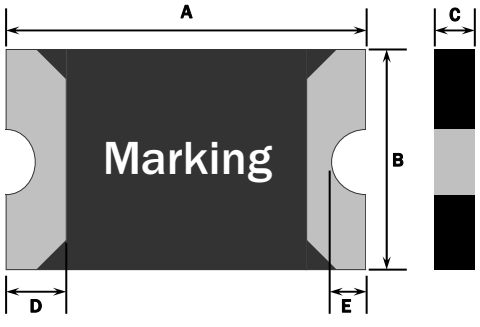
Marking

Polytronics / Polystar Logo

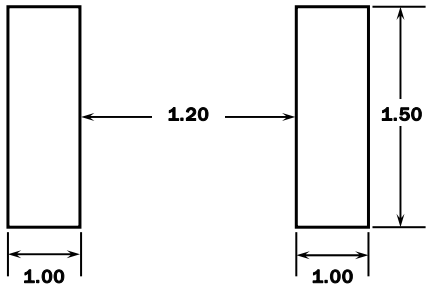
PU

Part Identification

Figure



Recommended Pad Layout (mm)



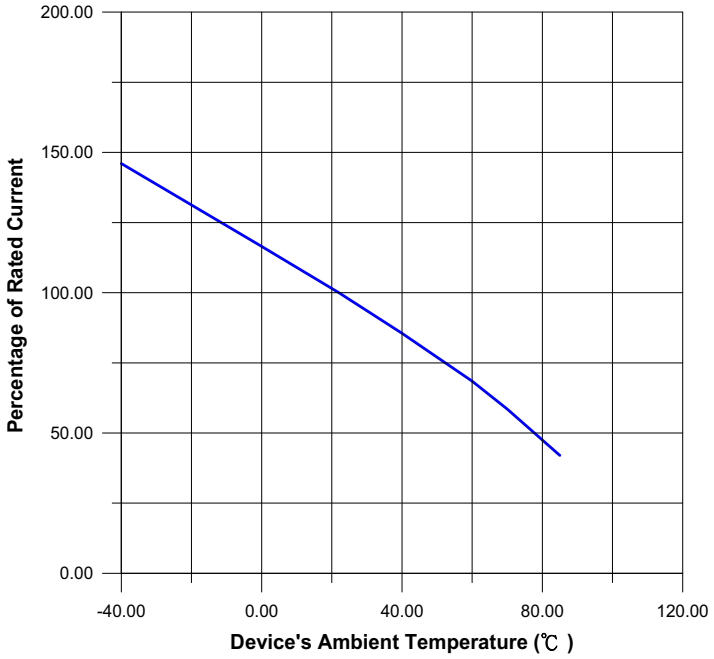
Note: Polystar is Polytronics's manufacturing site in China. The Polystar ID marking shall appear on smallest package.

PHYSICAL DIMENSIONS (mm)

Part Number	A		B		C		D		E	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
SPR-P260T	2.00	2.20	1.20	1.50	0.40	0.75	0.20	0.55	0.05	0.45

◎Specifications are subject to change without notice.

Thermal Derating Curve

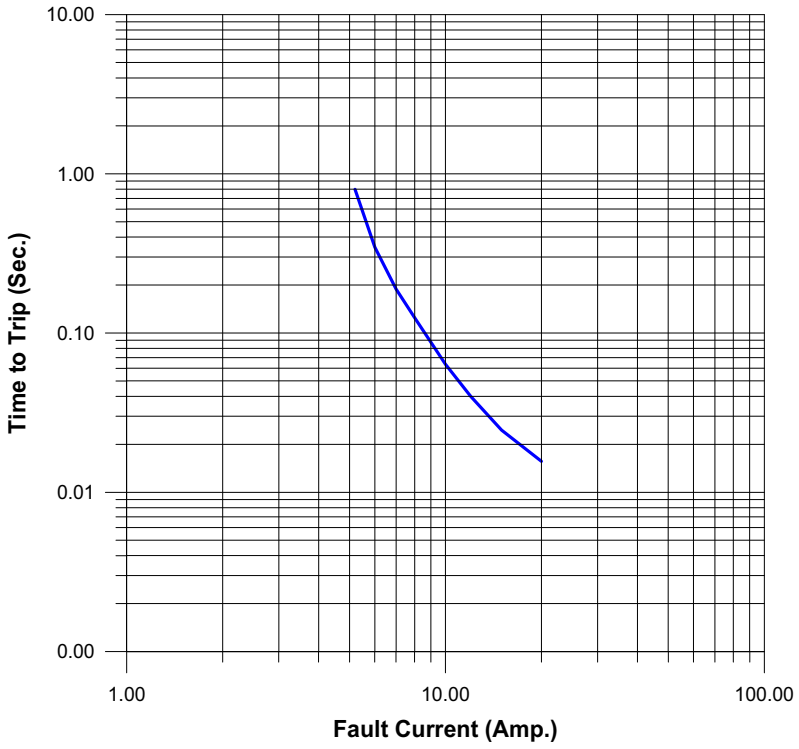


Thermal Derating Chart

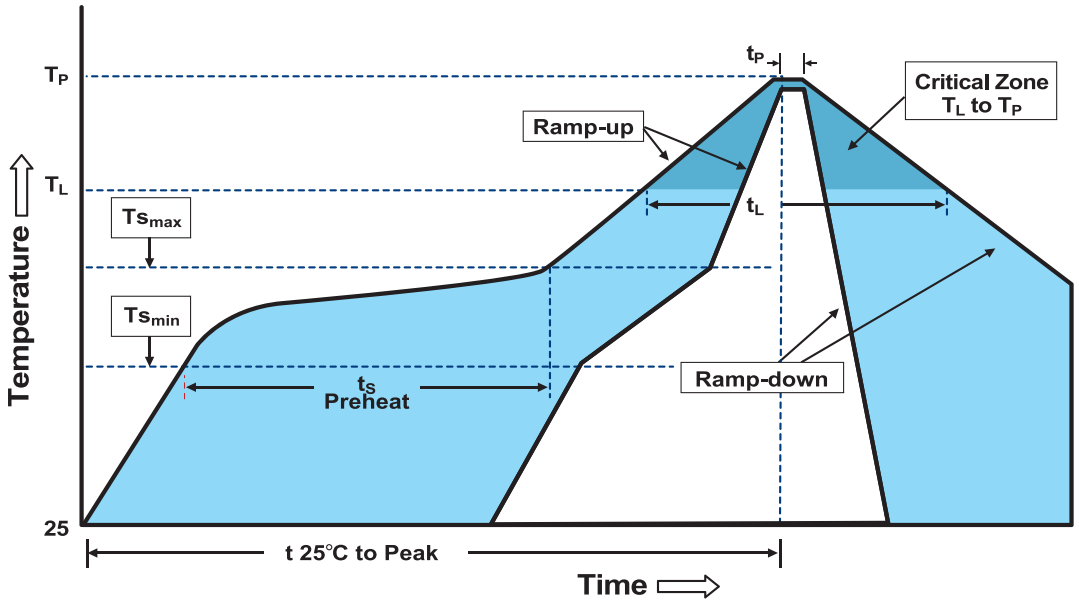
Recommended Hold Current (A) at Ambient Temperature (°C)

Part Number	Ambient Operation Temperature								
	-40 °C	-20 °C	0 °C	23 °C	40 °C	50 °C	60 °C	70 °C	85 °C
SPR-P260T	3.80	3.30	2.90	2.60	2.20	1.95	1.75	1.50	1.05

Average Time-Current Curve



Soldering Parameters



Profile Feature	Pb-Free Assembly
Average Ramp-Up Rate (Ts_{max} to T_P)	3°C/second max.
Preheat -Temperature Min (Ts_{min}) -Temperature Max (Ts_{max}) -Time (Ts_{min} to Ts_{max})	 150°C 200°C 60-180 seconds
Time maintained above: -Temperature (T_L) -Time (t_L)	 217°C 60-150 seconds
Peak Temperature (T_P)	260°C
Time within 5°C of actual Peak Temperature (t_P)	20-40 seconds
Ramp-Down Rate	6 °C /second max.
Time 25°C to Peak Temperature	8 minutes max.
Storage Condition	0°C ~35°C, ≦70%RH

- Recommended reflow methods: IR, vapor phase oven, hot air oven, N_2 environment for lead-free
- Recommended maximum paste thickness is 0.25mm (0.010 inch)
- Devices can be cleaned using standard industry methods and solvents.

Note 1: All temperature refer to topside of the package, measured on the package body surface.

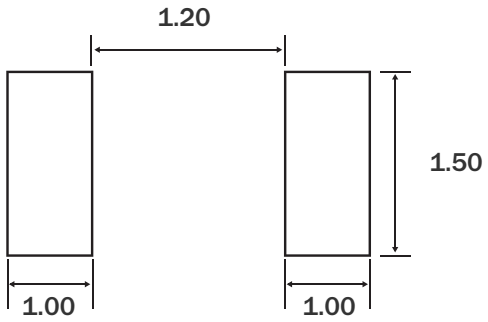
Note 2: If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.

Environmental Specifications

Operating/Storage Temperature	-40°C to +85 °C
Maximum Device Surface Temperature in Tripped State	125°C
Moisture Sensitivity Level	Level 1, J-STD-020C

Packaging Quantity and Marking

Recommended Pad Layout (mm.)



Part Number	Marking	Quantity
SPR-P260T	U	4000

◎ 8 mm tape on 7 inch reel per EIA-481-1 (equivalent to IEC286, part 3)

Physical Specifications

Terminal Material	Solder-Plated Copper (Solder Material: Matte Tin (Sn))
Lead Solderability	Meets EIA Specification RS186-9E, ANSI/J-STD-002 Category 3.

Part Number System

SPR - P □□□ T

- T — Thickness Version
- □□□ — Holding Current Rating
- P — Product Series

SPR-P = 0805 Surface Mount PTC Devices

Tape Specifications: EIA-481-1 (mm.)

W	8.00 ± 0.10
F	3.50 ± 0.05
E_1	1.75 ± 0.10
D_0	1.55 ± 0.05
D_1	1.00 (min)
P_0	4.00 ± 0.08
P_1	4.00 ± 0.10
P_2	2.00 ± 0.05
A_0	1.60 ± 0.10
B_0	2.30 ± 0.10
T	0.25 ± 0.10
K_0	0.90 ± 0.10
Leader min.	390
Trailer min.	160

Reel Dimensions: EIA-481-1 (mm.)

C	Ø178 ± 1.0
D	Ø60.2 ± 0.5
H	11.0 ± 0.5
W	9.0 ± 1.5