# POLYMER PTC DEVICE



### **DESCRIPTION**

Surface mount PTC devices are the preferred over-current protection method for computer, consumer electronic, portable electronics and automotive applications. These devices are suitable for automated assembly and are designed to save on board space.

### **FEATURES**

- Resettable Over-Current Protection
- Very Low Resistance
- High Current Rating
- Small Footprint of 1210
- Fast Time-to-Trip
- Lead-Free Solder Termination
- RoHS & REACH Compliant

### MECHANICAL CHARACTERISTICS

- Surface Mount Device: Size 1210
- Approximate Weight: 0.0164 grams
- Lead-Free
- 8mm Tape and Reel Per EIA Standard 481

### **APPLICATIONS**

- Mobile Phone Battery Packs
- Cordless Phone Battery Packs
- Mobile Radio Packs
- Computer Battery Packs
- · Camcorder Battery Packs
- SMART Phone Battery Packs
- Computer Motherboards

### **ENVIRONMENTAL SPECIFICATIONS**

- Recommended Storage Conditions: 40°C to 85°C
- Passive Aging: 85°C, 1000 Hours
- Moisture Resistance: 85% RH, 85°C, 1000 Hours
- Thermal Shock: -40°C to 85°C, 30 Minute Cycle, 20 Cycles
- Solder Leach Resistance and Terminal Adhesion: Per EIA-576 Test

# **TYPICAL DEVICE CHARACTERISTICS**

ELECTRICAL SPECIFICATIONS @ 25°C											
PART NUMBER	MARKING CODE	HOLDING CURRENT	TRIP CURRENT	OPERATING VOLTAGE	INTERRUPT CURRENT	MAXIUM TIME-TO-TRIP @5 I <sub>L</sub> A	MAXIMUM TRIPPED STATE POWER DISSIPATION @6V	REFERENCE RESISTANCE (Note 1) R OHMS		MAXIMUM TWO HOURS POST REFLOW RESISTANCE	
		I <sub>H</sub> AMPS	I <sub>T</sub> AMPS	V <sub>DC</sub> VOLTS	I <sub>MAX</sub> AMPS	T <sub>TRIP</sub> Seconds	P <sub>D</sub> WATTS	MIN	ТҮР	R OHMS	
PLRO1210-190	F	1.9	4.9	6	50	4.0	1.0	0.006	0.013	0.026	
PLR01210-300	1	3.0	8.0	6	50	4.0	1.0	0.004	0.009	0.018	
PLRO1210-380	К	3.8	9.0	6	50	4.0	1.0	0.002	0.008	0.017	

# NOTES

1. The maximum resistance of two hours post reflow is a reference value. The value may change a little according to reflow conditions and soldering state.

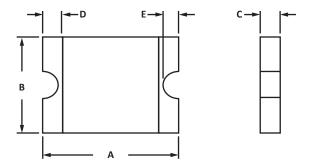
THERMAL DERATING CHART - IH(A)										
PART NUMBER	-40°C	-20°C	0°C	25°C	40°C	50°C	60°C	70°C		
PLRO1210-190	3.2	2.8	2.4	1.9	1.6	1.4	1.2	1.0		
PLR01210-300	5.4	4.6	3.9	3.0	2.7	2.5	2.1	1.6		
PLRO1210-380	5.7	5.1	4.4	3.8	3.2	2.7	2.3	1.8		

# PACKAGE OUTLINE AND PAD LAYOUT INFORMATION

OUTLINE DIMENSIONS										
DIM	MILLIN	IETERS	INCHES							
	MIN	MAX	MIN	MAX						
А	3.00	3.43	0.12	0.14						
В	2.35	2.80	0.09	0.11						
С	1.0	00	0.04							
D	0.25	0.75	0.01	0.03						
Е	0.10 0.50		0.04	0.02						

### NOTES

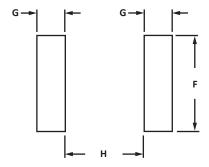
1. Dimensions are exclusive of mold flash and metal burrs.



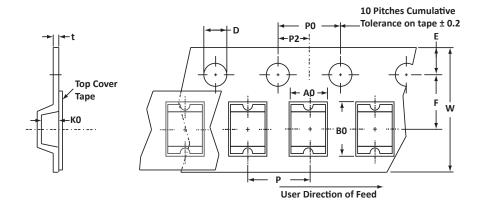
OUTLINE DIMENSIONS									
DIM	MILLIMETERS	INCHES							
ווועו	NOM	NOM							
F	2.50	0.01							
G	1.00	0.04							
Н	2.00	0.08							

### **NOTES**

1. Dimensions are exclusive of mold flash and metal burrs.



# **TAPE AND REEL**



SPECIFICATIONS												
REEL DIA.	TAPE WIDTH	A0	В0	КО	D	E	F	W	P0	P2	Р	t
178mm (7")	8mm	2.80 ± 0.10	3.50 ± 0.10	0.90 ± 0.10	1.55 ± 0.05	1.75 ± 0.10	3.50 ± 0.10	8.00 ± 0.20	4.00 ± 0.10	2.00 ± 0.05	4.00 ± 0.10	0.22±0.05

### **NOTES**

- 1. Dimensions are in millimeters.
- 2. Surface mount product is taped and reeled in accordance with EIA-481.
- 3. Suffix T7 = 7" Reel 4,000 pieces per 8mm tape.
- 4. Marking on Part marking code.

ORDERING INFORMATION										
BASE PART NUMBER	LEADFREE SUFFIX	TAPE SUFFIX	QTY/REEL	REEL SIZE	TUBE QTY					
PLRO1210-xxx N/A		-T7	4,000	7"	N/A					
This device is only available in a Lead-Free configuration.										

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# **COMPANY INFORMATION**

#### **COMPANY PROFILE**

In business more than 20 years, ProTek Devices™ is a privately held semiconductor company. The company offers a product line of overvoltage protection and overcurrent protection components. These include transient voltage suppressor array (TVS arrays) avalanche breakdown diode, steering diode TVS array and electronics SMD chip fuses. These components deliver circuit protection in electronic systems from numerous overvoltage and overcurrent events. They include lightning; electrostatic discharge (ESD); nuclear electromagnetic pulses (NEMP); inductive switching; and electromagnetic interference (EMI) / radio frequency interference (RFI). ProTek Devices also offers high performance interface and linear products. They include analog switches; multiplexers; LED drivers; LED wafer die for ESD protection; audio control ICs; RF and related high frequency products.

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