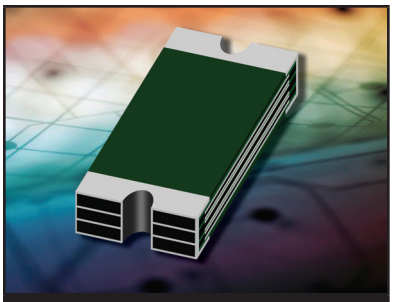
## POLYMER PTC DEVICE



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

## APPLICATIONS

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

## MECHANICAL CHARACTERISTICS

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

## 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 $I_H$ AMPS | TRIP CURRENT $I_T$ AMPS | OPERATING VOLTAGE $V_{DC}$ VOLTS | INTERRUPT CURRENT $I_{MAX}$ AMPS | MAXIUM TIME-TO-TRIP @5 $I_H$A $T_{TRIP}$ Seconds | MAXIMUM TRIPPED STATE POWER DISSIPATION @6V $P_D$ WATTS | REFERENCE RESISTANCE (Note 1) R OHMS MIN | REFERENCE RESISTANCE (Note 1) R OHMS TYP | MAXIMUM TWO HOURS POST REFLOW RESISTANCE R OHMS |
| PLRO1210-190 | F | 1.9 | 4.9 | 6 | 50 | 4.0 | 1.0 | 0.006 | 0.013 | 0.026 |
| PLR01210-300 | I | 3.0 | 8.0 | 6 | 50 | 4.0 | 1.0 | 0.004 | 0.009 | 0.018 |
| PLRO1210-380 | K | 3.8 | 9.0 | 6 | 50 | 4.0 | 1.0 | 0.002 | 0.008 | 0.017 |

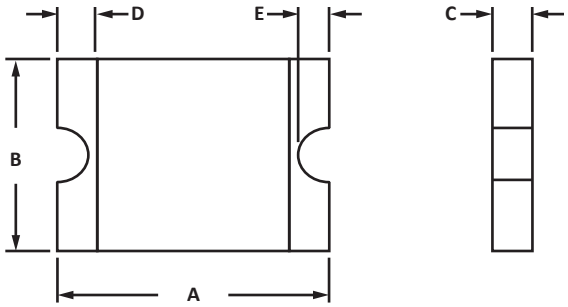
**NOTES**
1. The maximum resistance of two hours post reflow is a reference value. The value may change a little according to reflow conditions and soldering state.

| 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

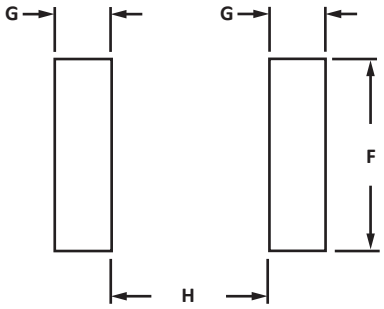
| OUTLINE DIMENSIONS | | | | |
|---|---|---|---|---|
| DIM | MILLIMETERS | | INCHES | |
| | MIN | MAX | MIN | MAX |
| A | 3.00 | 3.43 | 0.12 | 0.14 |
| B | 2.35 | 2.80 | 0.09 | 0.11 |
| C | 1.00 | | 0.04 | |
| D | 0.25 | 0.75 | 0.01 | 0.03 |
| E | 0.10 | 0.50 | 0.04 | 0.02 |

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

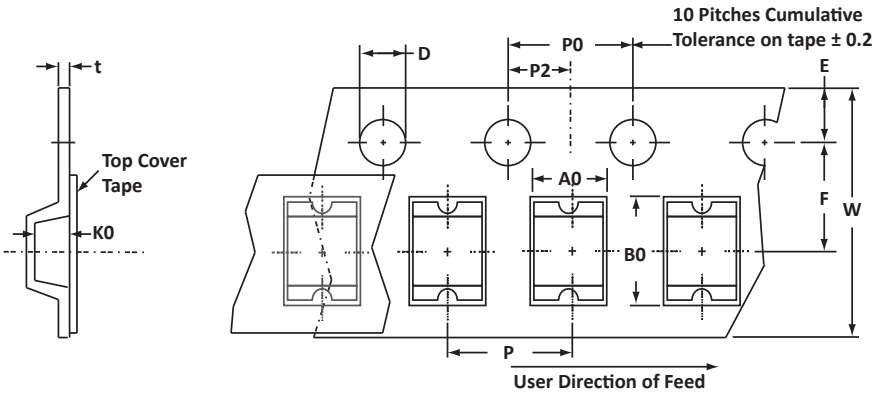



| OUTLINE DIMENSIONS | | |
|---|---|---|
| DIM | MILLIMETERS | INCHES |
| | NOM | NOM |
| F | 2.50 | 0.01 |
| G | 1.00 | 0.04 |
| H | 2.00 | 0.08 |

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



## TAPE AND REEL




| SPECIFICATIONS | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| REEL DIA. | TAPE WIDTH | A0 | B0 | K0 | D | E | F | W | P0 | P2 | P | 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. | | | | | |

## 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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