



# THE DATASHEET OF SMD23PE-TP



## Features

- Halogen Free. "Green" Device (Note 1)
- Lead Free Finish/RoHS Compliant (Note2)("P" Suffix Designates RoHS Compliant. See Ordering Information)
- Low Forward Voltage and High Current Capability
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1

## Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Typical Thermal Resistance(Note 3): 105°C/W Junction to Ambient
- Typical Thermal Resistance(Note 3): 15°C/W Junction to Lead
- Typical Thermal Resistance(Note 3): 20°C/W Junction to Case

| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------|--|---------------------|-----------------------------|
| SMD23PE         | 22             | 30V                                    | 21V                 | 30V                         |

## Electrical Characteristics @ 25°C Unless Otherwise Specified

|   |             |  |   |
|---|-------------|--|---|
| Average Forward Current                         | $I_{F(AV)}$ | 2.0A   | Fig.1   |
| Peak Forward Surge Current                      | $I_{FSM}$   | 30A  | 8.3ms, Half Sine  |
| Instantaneous Forward Voltage                   | $V_F$       | 0.60V(Max.)<br>0.53V(Typ.)<br>0.55V(Max.)<br>0.47V(Typ.)         | $I_F=2.0A; T_J=25^\circ C^*$<br>$I_F=2.0A; T_J=125^\circ C^*$ |
| DC Reverse Current At Rated DC Blocking Voltage | $I_R$       | 50 $\mu A$ (Max.)<br>5 $\mu A$ (Typ.)<br>15mA(Max.)<br>6mA(Typ.) | $T_J=25^\circ C$<br>$T_J=125^\circ C$                         |

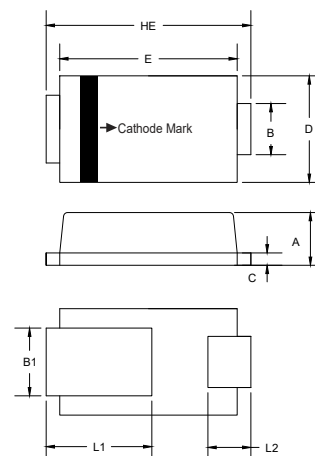
\*Pulse Test: Pulse Width 300  $\mu$ sec, Duty Cycle 1%

Note :

- 1.Halogen free "Green"products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
- 2.High Temperature Solder Exemption Applied, See EU Directive Annex 7a.
3. $R_{\theta JA}$  and  $R_{\theta JL}$  Mounted on PCB With 6.0 mm x 6.0 mm Copper Pad Areas  $R_{\theta JC}$  is measured at the top center of the body.

# 2 Amp Schottky Rectifier 30 Volts

## SOD-323HE



| DIM | INCHES |       | MM    |       | NOTE |
|-----|--------|-------|-------|-------|------|
|     | MIN    | MAX   | MIN   | MAX   |      |
| A   | 0.022  | 0.030 | 0.550 | 0.750 |      |
| B   | 0.021  | 0.029 | 0.530 | 0.730 |      |
| B1  | 0.028  | 0.036 | 0.720 | 0.920 |      |
| C   | 0.004  | 0.010 | 0.100 | 0.250 |      |
| D   | 0.047  | 0.055 | 1.200 | 1.400 |      |
| E   | 0.081  | 0.089 | 2.050 | 2.250 |      |
| L1  | 0.047  | 0.055 | 1.200 | 1.400 |      |
| L2  | 0.016  | 0.024 | 0.400 | 0.600 |      |
| HE  | 0.094  | 0.102 | 2.400 | 2.600 |      |

**Curve Characteristics**

Fig. 1 - Forward Current Derating Curve

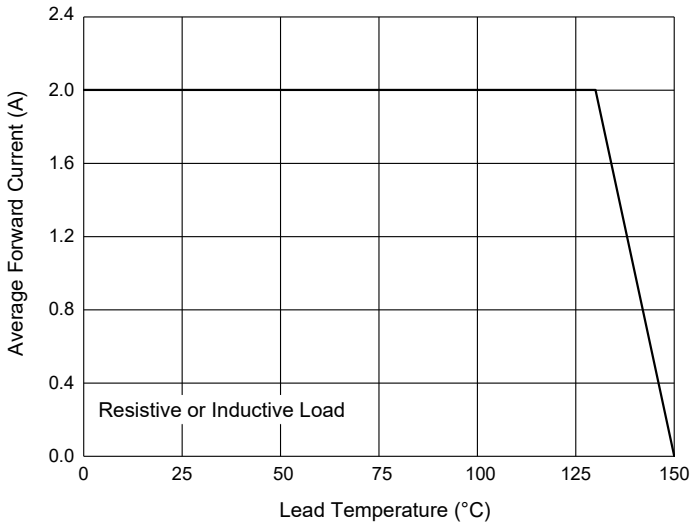


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

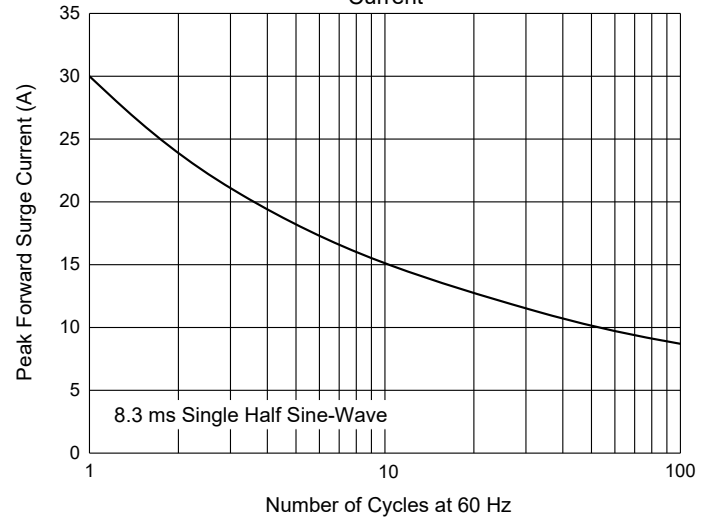


Fig. 3 - Typical Instantaneous Forward Characteristics

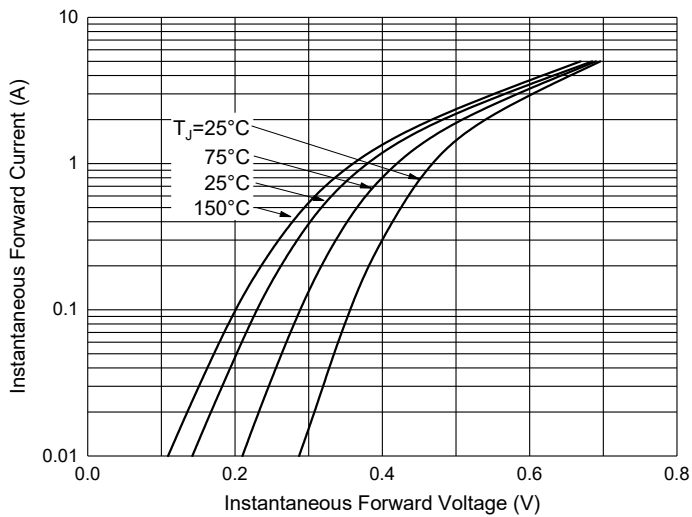
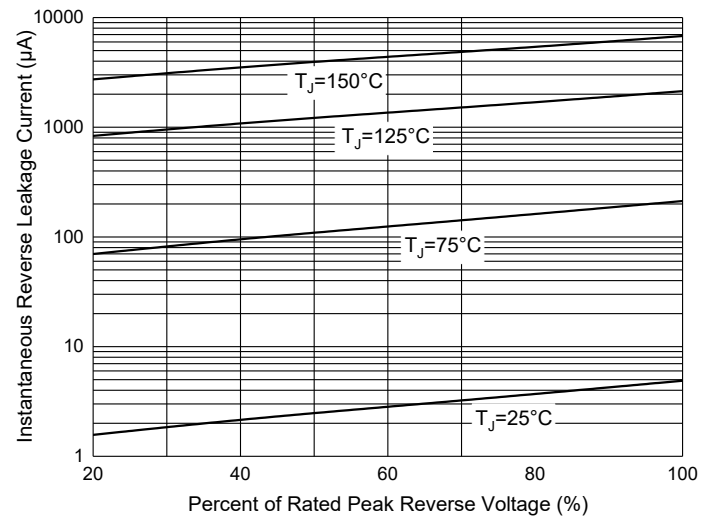


Fig. 4 - Typical Reverse Leakage Characteristics



## Ordering Information

| Device     | Packing                  |
|------------|--------------------------|
| SMD23PE-TP | Tape&Reel: 4.5 Kpcs/Reel |

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