

## **Features**

- Halogen Free. "Green" Device (Note 1)
- AEC-Q101 Qualified
- · High Current Capability
- Low Forward Voltage
- Lead Free Finish/RoHS Compliant(Note 2) ("P" Suffix Designates Compliant. See Ordering Information)
- 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
- Maximum Thermal Resistance: 28°C/W Junction to Lead

| MCC<br>Part Number | Device<br>Marking | Maximum<br>Recurrent<br>Peak Reverse<br>Voltage | iviaximum | Maximum DC<br>Blocking<br>Voltage |
|--------------------|-------------------|---|-----------|-----------------------------------|
| SMD1150PLHE3       | D15               | 150V  | 105V      | 150V                              |
| SMD1200PLHE3       | D20               | 200V  | 140V      | 200V                              |

## Electrical Characteristics @ 25°C Unless Otherwise Specified

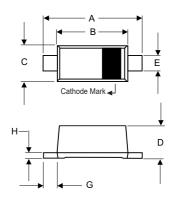
| Average Forward Current   | I <sub>F(AV)</sub> | 1.0A           | T <sub>L</sub> =100°C                                   |
|---|--------------------|----------------|---|
| Peak Forward Surge<br>Current                                   | I <sub>FSM</sub>   | 30A            | 8.3ms,Half Sine   |
| Maximum Instantaneous Forward Voltage SMD1150PLHE3 SMD1200PLHE3 |                    | 0.85V<br>0.95V | I <sub>FM</sub> =1.0A;<br>T <sub>J</sub> =25°C (Note:3) |
| Maximum DC Reverse Current at Rated DC Blocking Voltage         | I <sub>R</sub>     | 0.01mA<br>1mA  | T <sub>J</sub> =25°C<br>T <sub>J</sub> =100°C           |
| Typical Junction<br>Capacitance                                 | СЈ                 | 30pF           | Measured at<br>1.0MHz, V <sub>R</sub> =4.0V             |

Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

- $\hbox{2. High Temperature Solder Exemption Applied, see EU Directive Annex Notes 7a.}\\$
- 3. Pulse test: Pulse width 300 µsec, Duty cycle 2%

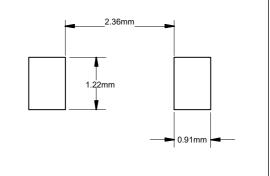
# 1 Amp Schottky Rectifier 150 to 200 Volts

# SOD-123FL



| DIMENSIONS |        |       |      |      |      |  |  |
|------------|--------|-------|------|------|------|--|--|
| DIM        | INCHES |       | MM   |      | NOTE |  |  |
| DIIVI      | MIN    | MAX   | MIN  | MAX  | NOTE |  |  |
| Α          | 0.130  | 0.152 | 3.30 | 3.85 |      |  |  |
| В          | 0.100  | 0.122 | 2.55 | 3.10 |      |  |  |
| С          | 0.055  | 0.075 | 1.40 | 1.90 |      |  |  |
| D          | 0.035  | 0.053 | 0.90 | 1.35 |      |  |  |
| Е          | 0.020  | 0.041 | 0.50 | 1.05 |      |  |  |
| G          | 0.010  |       | 0.25 |      |      |  |  |
| Н          |        | 0.010 |      | 0.25 |      |  |  |

#### Suggested Solder Pad Layout





## **Curve Characteristics**

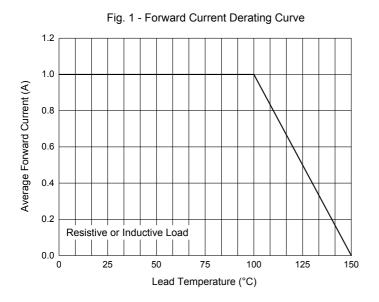


Fig. 3 - Typical Instantaneous Forward Characteristics

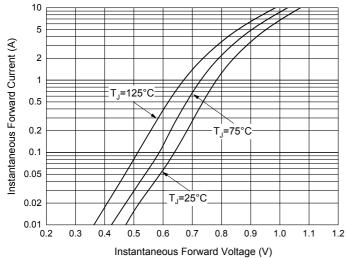


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge
Current

35

20

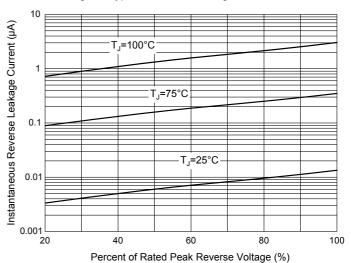
20

10

8.3 ms Single Half Sine-Wave
0
1 10 100

Number of Cycles at 60 Hz

Fig. 4 - Typical Reverse Leakage Characteristics





## **Ordering Information**

| Device         | Packing                 |  |
|----------------|-------------------------|--|
| Part Number-TP | Tape&Reel: 2.5Kpcs/Reel |  |

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