

Features

- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix Designates Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Super Fast Recovery Times For High Efficiency
- Halogen Free. "Green" Device (Note 2)
- AEC-Q101 Qualified

Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Typical Thermal Resistance(Note 3): 15°C/W Junction to Lead
- Typical Thermal Resistance(Note 3): 65°C/W Junction to Ambient

| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------|--|---------------------|-----------------------------|
| ER3DHE3 | ER3D | 200V | 140V | 200V |
| ER3GHE3 | ER3G | 400V | 280V | 400V |
| ER3JHE3 | ER3J | 600V | 420V | 600V |

Electrical Characteristics @ 25°C Unless Otherwise Specified

| | | | |
|---|-------------|---|--|
| Average Forward Current | $I_{F(AV)}$ | 3.0A | $T_L=80^\circ\text{C}$ |
| Peak Forward Surge Current | I_{FSM} | 100A | 8.3ms, Half Sine |
| Maximum Instantaneous Forward Voltage | V_F | ER3DHE3 0.95V ER3GHE3 1.30V ER3JHE3 1.70V | $I_{FM}=3.0\text{A};$ $T_J=25^\circ\text{C}^*$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I_R | 5 μA 100 μA | $T_J=25^\circ\text{C};$ $T_J=125^\circ\text{C}$ |
| Maximum Reverse Recovery Time | T_{RR} | 35ns | $I_F=0.5\text{A}; I_R=1.0\text{A};$ $I_{rr}=0.25\text{A}$ |
| Typical Junction Capacitance | C_J | 50pF | Measured at 1.0MHz $V_R=4.0\text{V}$ |

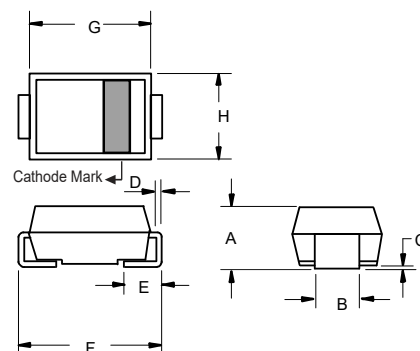
*Pulse Test: Pulse Width 300 μsec , Duty Cycle 2%

Note :

1. High Temperature Solder Exemptions Applied, See EU Directive Annex 7a.
2. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
3. Mounted on P.C.B. with 0.6" x 0.6" (16 mm x 16 mm) copper pad areas.

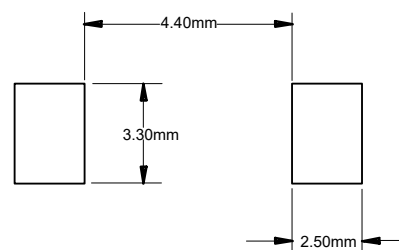
3 Amp Super Fast Recovery Silicon Rectifier 200 to 600 Volts

SMC (DO-214AB)



| DIM | DIMENSIONS | | | | NOTE |
|-----|------------|-------|-------|-------|------|
| | INCHES | | MM | | |
| | MIN | MAX | MIN | MAX | |
| A | 0.079 | 0.103 | 2.00 | 2.62 | |
| B | 0.108 | 0.128 | 2.75 | 3.25 | |
| C | 0.002 | 0.008 | 0.051 | 0.203 | |
| D | 0.006 | 0.012 | 0.152 | 0.305 | |
| E | 0.030 | 0.060 | 0.76 | 1.52 | |
| F | 0.305 | 0.320 | 7.75 | 8.13 | |
| G | 0.260 | 0.280 | 6.60 | 7.11 | |
| H | 0.220 | 0.245 | 5.59 | 6.22 | |

Suggested Solder Pad Layout



Curve Characteristics

Fig. 1 - Forward Current Derating Curve

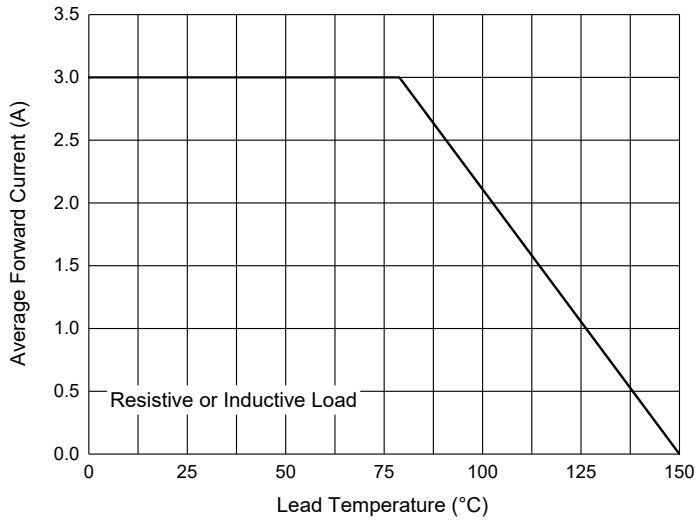


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

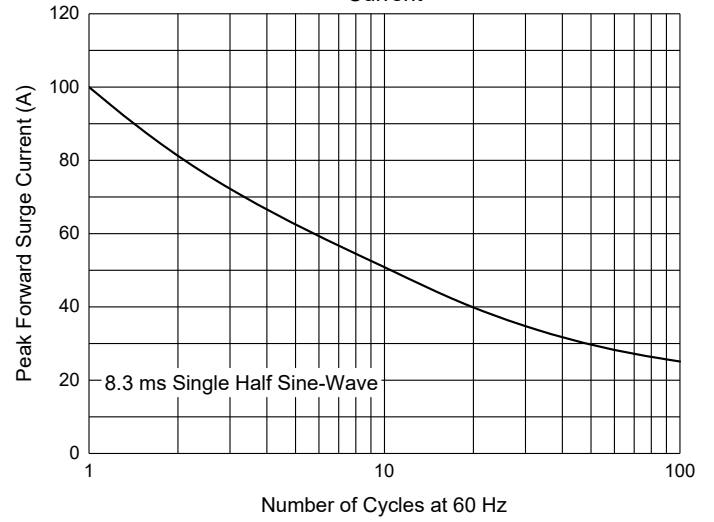


Fig. 3 - Typical Instantaneous Forward Characteristics

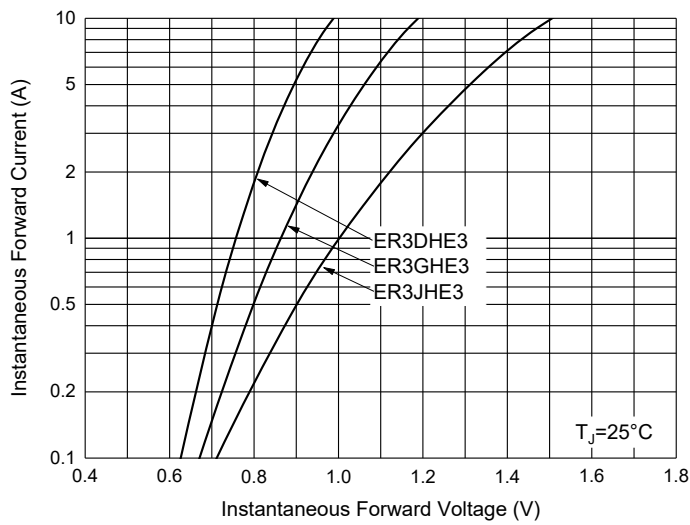
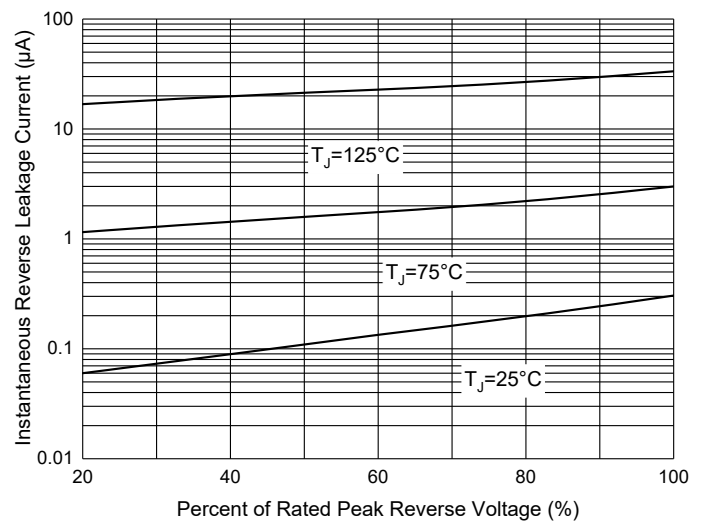


Fig. 4 - Typical Reverse Leakage Characteristics



Ordering Information

| Device | Packing |
|----------------|-----------------------|
| Part Number-TP | Tape&Reel: 3Kpcs/Reel |

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