

Features

- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix Designates Compliant. See Ordering Information)
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Low Forward Voltage
- Guard Ring Protection
- High Current Capability
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1

Maximum Ratings

- Operating Junction Temperature Range(SS12E~14E): -55°C to +125°C
- Operating Junction Temperature Range(SS15E~110E): -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Maximum Thermal Resistance: 28°C/W Junction to Lead
- Maximum Thermal Resistance: 90°C/W Junction to Ambient

| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------|--|---------------------|-----------------------------|
| SS12E | SS12 | 20V | 14V | 20V |
| SS13E | SS13 | 30V | 21V | 30V |
| SS14E | SS14 | 40V | 28V | 40V |
| SS15E | SS15 | 50V | 35V | 50V |
| SS16E | SS16 | 60V | 42V | 60V |
| SS18E | SS18 | 80V | 56V | 80V |
| SS110E | SS110 | 100V | 70V | 100V |

Electrical Characteristics @ 25°C Unless Otherwise Specified

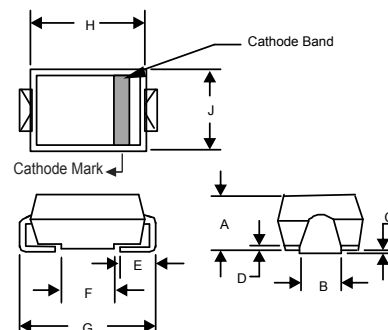
| | | | |
|---|-------------|-------------------------|---|
| Average Forward Current | $I_{F(AV)}$ | 1.0A | $T_L=100^\circ\text{C}$ |
| Peak Forward Surge Current | I_{FSM} | 30A | 8.3ms, Half Sine |
| Maximum Instantaneous Forward Voltage | V_F | 0.60V 0.70V 0.85V | $I_{FM}=1.0A$; $T_J=25^\circ\text{C}^*$ |
| Maximum DC Reverse Current at Rated DC Blocking Voltage | I_R | 0.1mA 10mA | $T_J=25^\circ\text{C}$ $T_J=100^\circ\text{C}$ |
| Typical Junction Capacitance | C_J | 110pF 30pF | Measured at 1.0MHz $V_R=4.0V$ |

*Pulse Test: Pulse width 300 μsec , Duty cycle 2%

Note :1. High Temperature Solder Exemption Applied, See EU Directive Annex 7a.

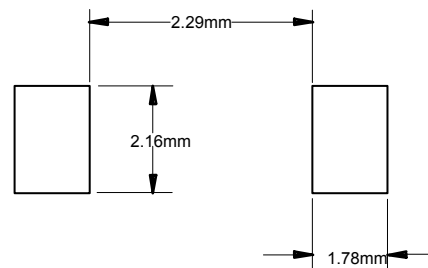
1.0 Amp Schottky Rectifier 20 to 100 Volts

SMAE



| DIM | INCHES | | MM | | NOTE |
|-----|--------|-------|------|------|------|
| | MIN | MAX | MIN | MAX | |
| A | 0.079 | 0.096 | 2.01 | 2.44 | |
| B | 0.045 | 0.071 | 1.15 | 1.80 | |
| C | 0.002 | 0.008 | 0.05 | 0.20 | |
| D | --- | 0.020 | --- | 0.51 | |
| E | 0.030 | 0.060 | 0.76 | 1.52 | |
| F | 0.065 | 0.084 | 1.65 | 2.13 | |
| G | 0.189 | 0.208 | 4.80 | 5.30 | |
| H | 0.157 | 0.180 | 4.00 | 4.57 | |
| J | 0.090 | 0.115 | 2.29 | 2.92 | |

Suggested Solder Pad Layout



Curve Characteristics

Fig. 1 - Forward Current Derating Curve

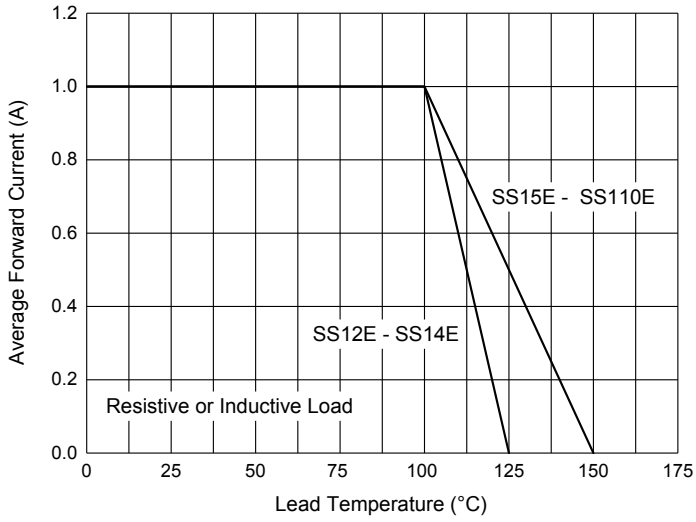


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

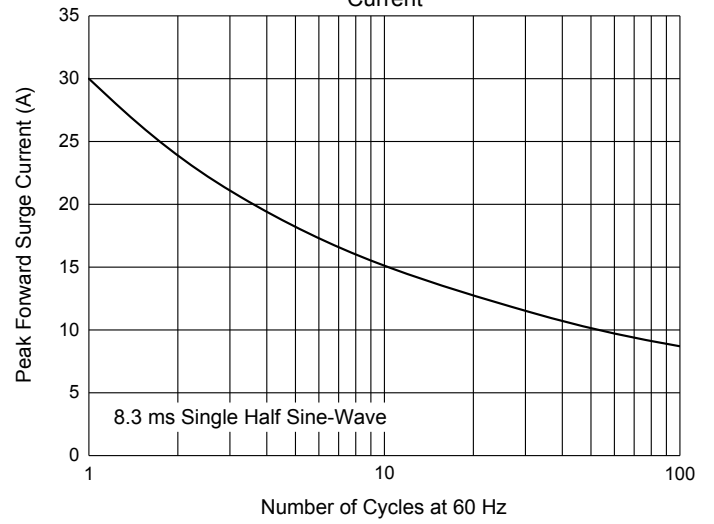


Fig. 3 - Typical Instantaneous Forward Characteristics

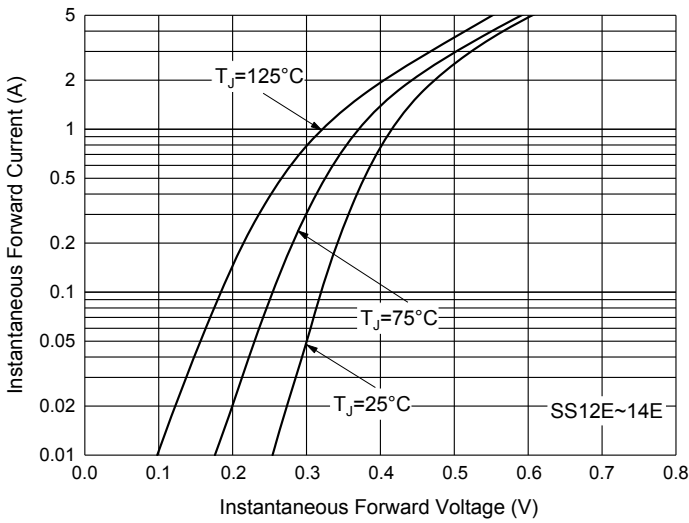


Fig. 4 - Typical Instantaneous Forward Characteristics

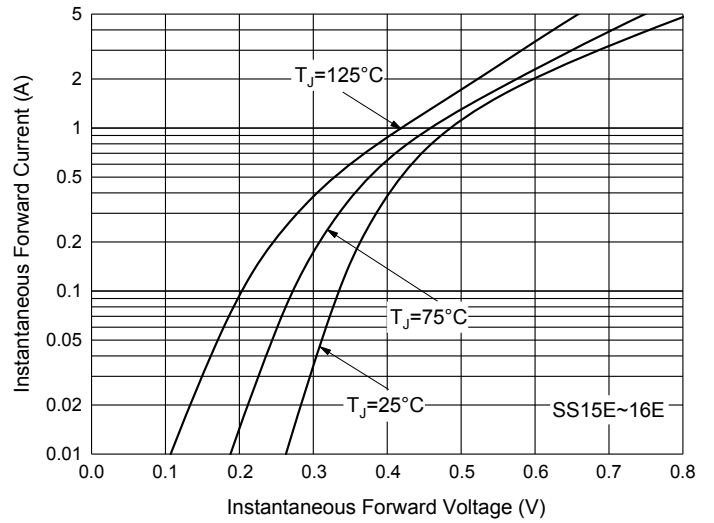


Fig. 5 - Typical Instantaneous Forward Characteristics

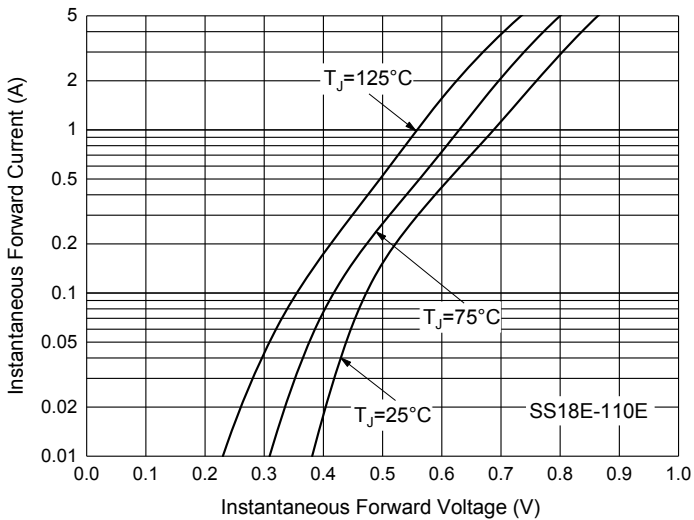
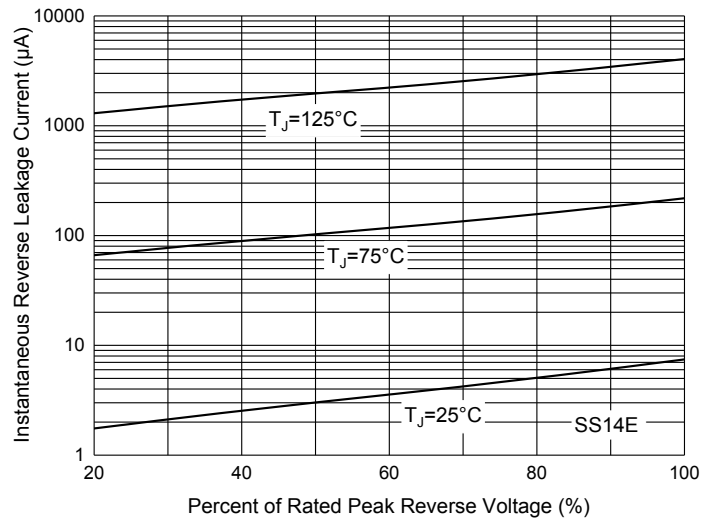


Fig. 6 - Typical Reverse Leakage Characteristics



Curve Characteristics

Fig. 7 - Typical Reverse Leakage Characteristics

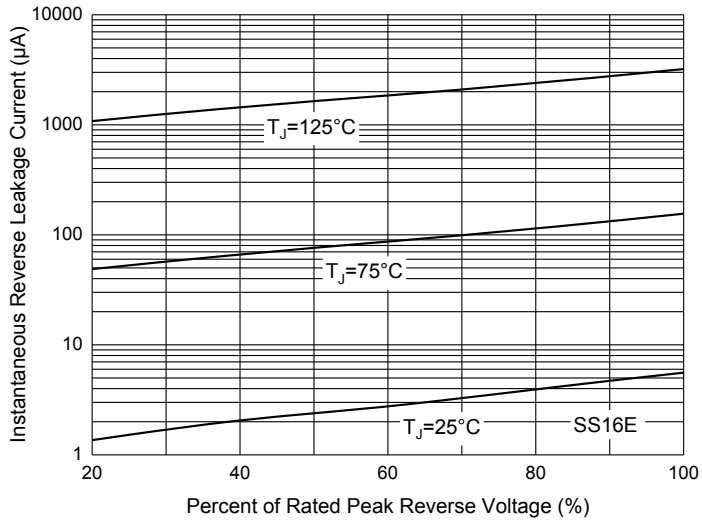
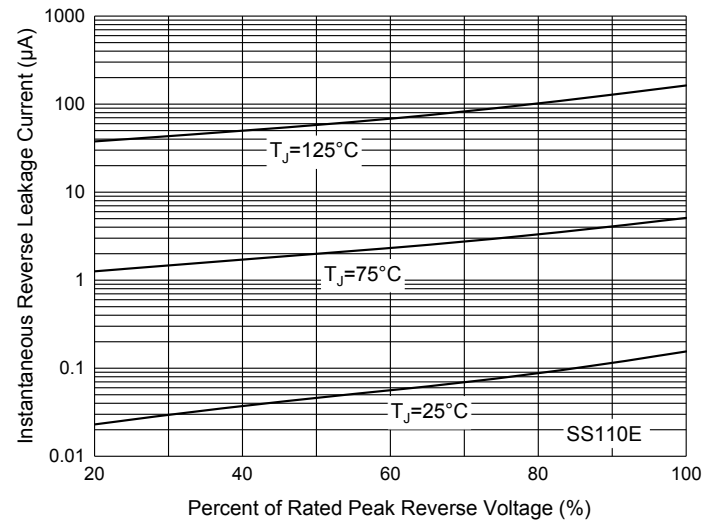


Fig. 8 - Typical Reverse Leakage Characteristics



Ordering Information

| Device | Packing |
|----------------|-----------------------|
| Part Number-TP | Tape&Reel: 6Kpcs/Reel |

Note : Adding "-HF" Suffix For Halogen Free, eg. Part Number-TP-HF

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- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



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