

Features

- Halogen Free. "Green" Device (Note 1)
- 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 + 125°C(52AFL-510AFL)
- Operating Junction Temperature Range: -55°C to + 175°C(5150AFL-5200AFL)
- Storage Temperature Range: -55°C to +150°C
- Typical Thermal Resistance: 6°C/W Junction to Case
- Typical Thermal Resistance: 18°C/W Junction to Lead
- Typical Thermal Resistance: 61°C/W Junction to Ambient

| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------|--|---------------------|-----------------------------|
| SK52AFL | SK52 | 20V | 14V | 20V |
| SK53AFL | SK53 | 30V | 21V | 30V |
| SK54AFL | SK54 | 40V | 28V | 40V |
| SK55AFL | SK55 | 50V | 35V | 50V |
| SK56AFL | SK56 | 60V | 42V | 60V |
| SK58AFL | SK58 | 80V | 56V | 80V |
| SK510AFL | SK510 | 100V | 70V | 100V |
| SK5150AFL | SK5150 | 150V | 105V | 150V |
| SK5200AFL | SK5200 | 200V | 140V | 200V |

Electrical Characteristics @ 25°C Unless Otherwise Specified

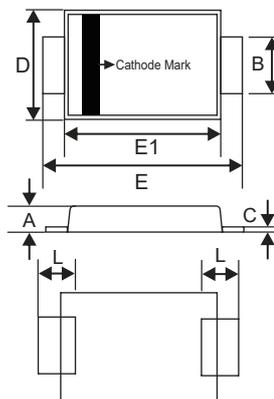
| | | | |
|---|-------------|---|--|
| Average Forward Current | $I_{F(AV)}$ | 5.0A | See Fig.1 |
| Peak Forward Surge Current | I_{FSM} | 100A | 8.3ms, Half Sine |
| Maximum Instantaneous Forward Voltage | V_F | 0.55V 0.70V 0.85V 0.87V 0.90V | $I_{FM}=5.0A;$ $T_J=25^{\circ}C$ |
| SK52AFL-SK54AFL | | | |
| SK55AFL-SK56AFL | | | |
| SK58AFL-SK510AFL | | | |
| SK5150AFL SK5200AFL | | | |
| Maximum DC Reverse Current at Rated DC Blocking Voltage | I_R | 0.1mA 10mA 0.01mA 1mA | $T_J=25^{\circ}C$ $T_J=100^{\circ}C$ $T_J=25^{\circ}C$ $T_J=100^{\circ}C$ |
| SK52AFL-SK58AFL | | | |
| SK58AFL-SK5200AFL | | | |
| Typical Junction Capacitance | C_J | 300pF 210pF 170pF 150pF 110pF | Measured at 1.0MHz, $V_R=4.0V$ |
| SK52AFL-SK54AFL | | | |
| SK55AFL-SK56AFL | | | |
| SK58AFL-SK510AFL | | | |
| SK5150AFL SK5200AFL | | | |

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

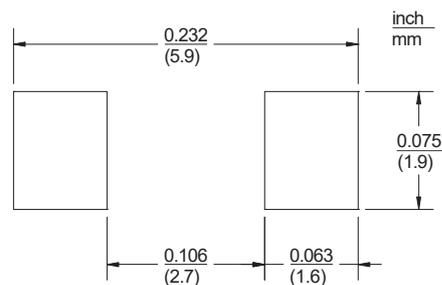
5 Amp Schottky Rectifiers 20 to 200 Volts

DO-221AC(SMA-FL)



| DIM | DIMENSIONS | | | | NOTE |
|-----|------------|-------|------|------|------|
| | INCHES | | MM | | |
| A | 0.035 | 0.049 | 0.90 | 1.25 | |
| B | 0.049 | 0.065 | 1.25 | 1.65 | |
| C | 0.004 | 0.016 | 0.10 | 0.40 | |
| D | 0.089 | 0.116 | 2.25 | 2.95 | |
| E | 0.173 | 0.220 | 4.40 | 5.60 | |
| E1 | 0.126 | 0.181 | 3.20 | 4.60 | |
| L | 0.020 | 0.059 | 0.50 | 1.50 | |

Suggested Solder Pad Layout



Curve Characteristics

Fig. 1 - Forward Current Derating Curve

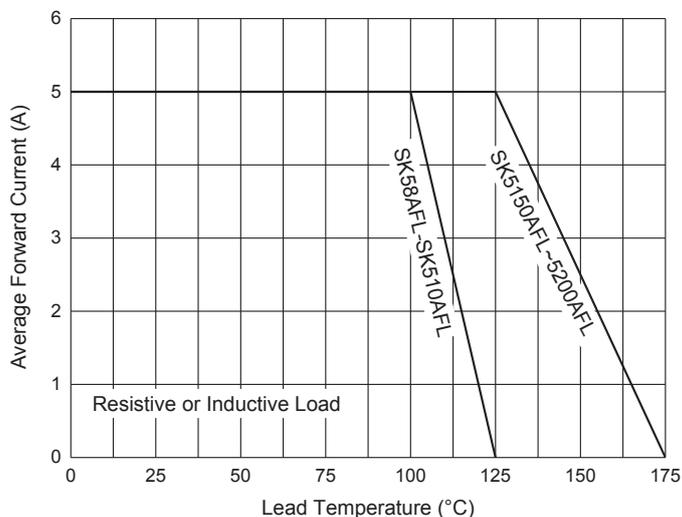


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

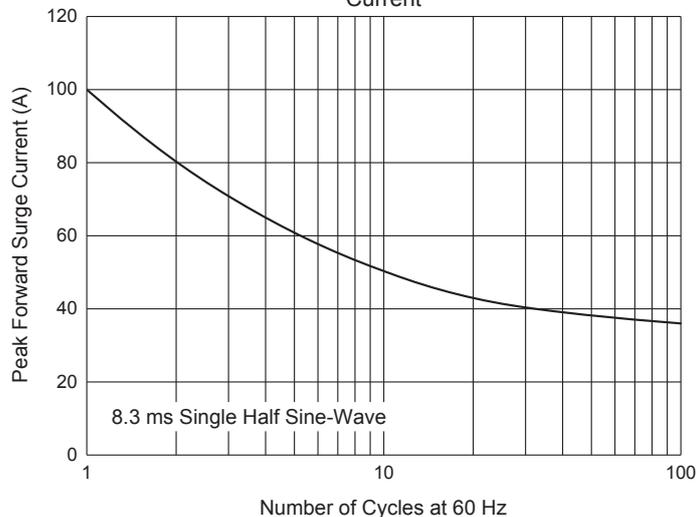


Fig. 3 - Typical Instantaneous Forward Characteristics

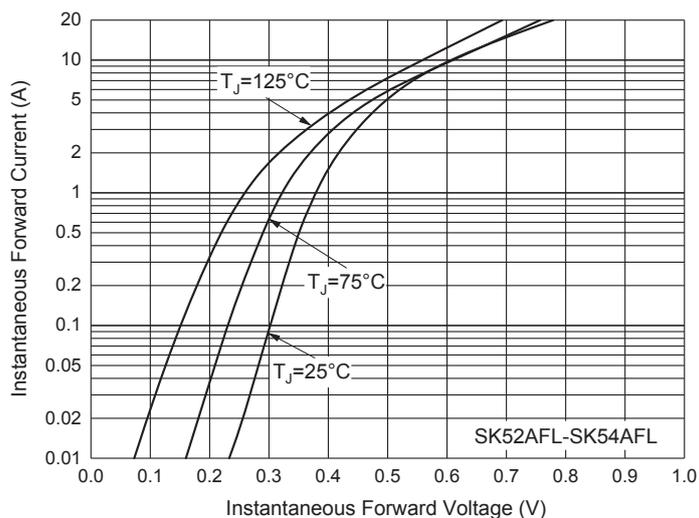


Fig. 4 - Typical Instantaneous Forward Characteristics

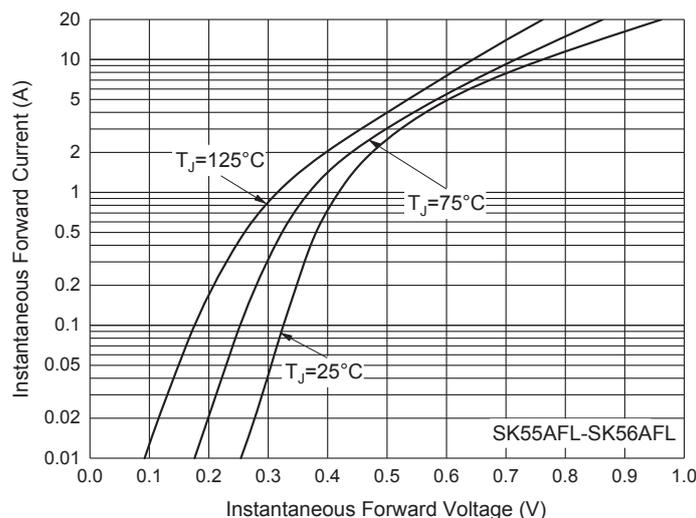


Fig. 5 - Typical Instantaneous Forward Characteristics

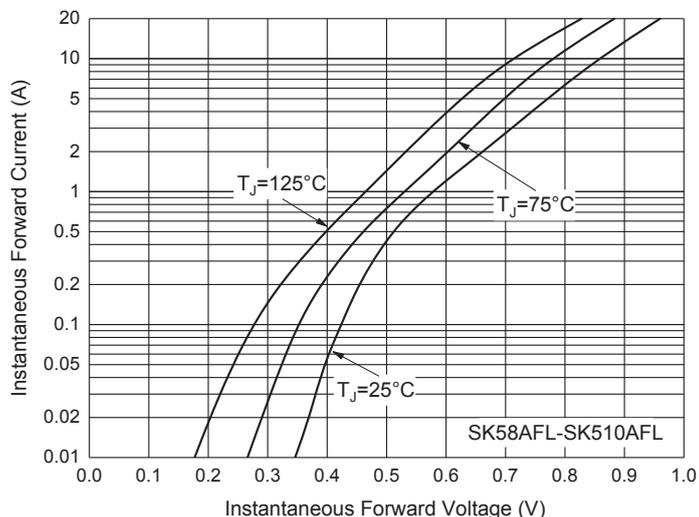
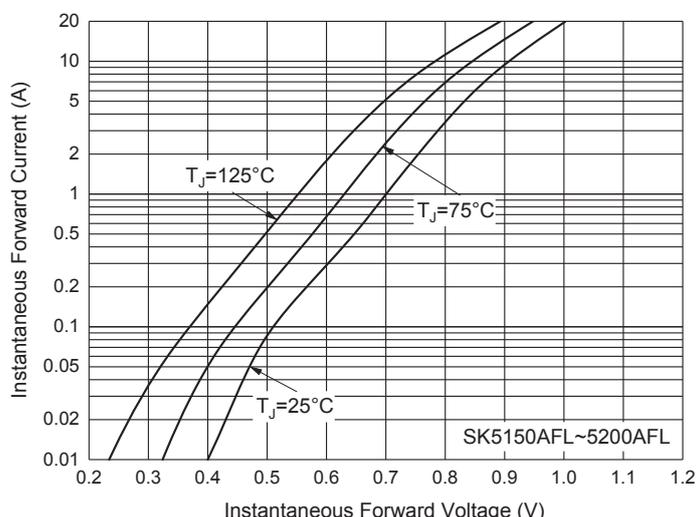


Fig. 6 - Typical Instantaneous Forward Characteristics



Curve Characteristics

Fig. 7 - Typical Reverse Leakage Characteristics

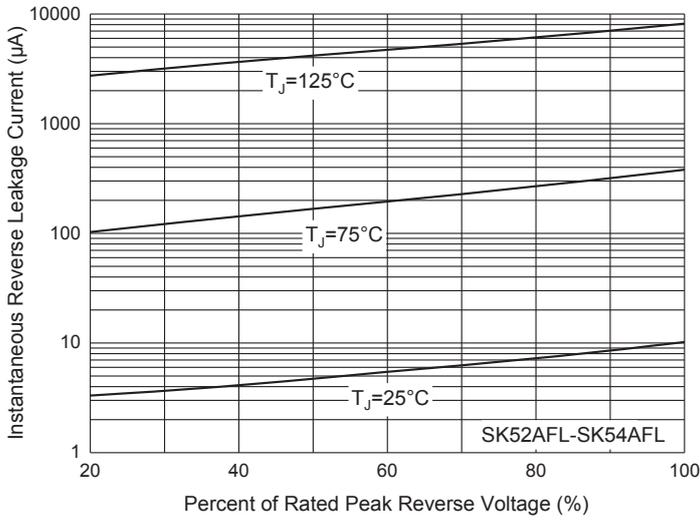


Fig. 8 - Typical Reverse Leakage Characteristics

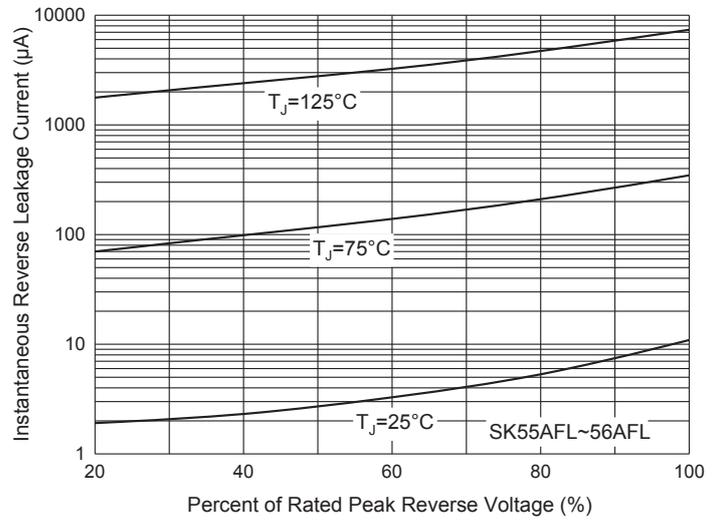


Fig. 9 - Typical Reverse Leakage Characteristics

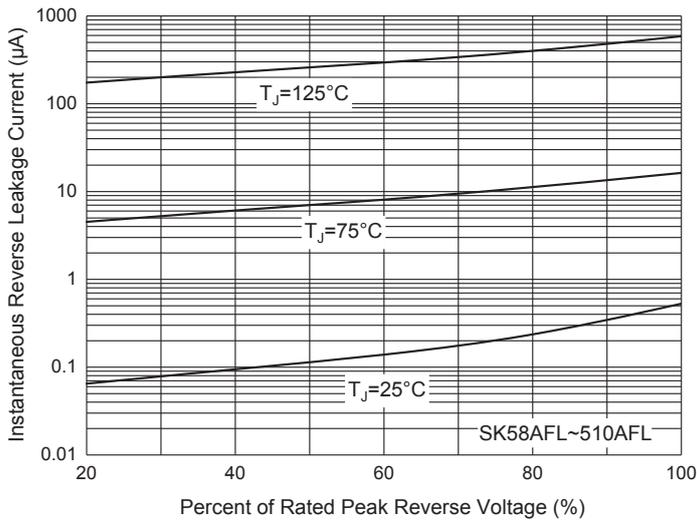
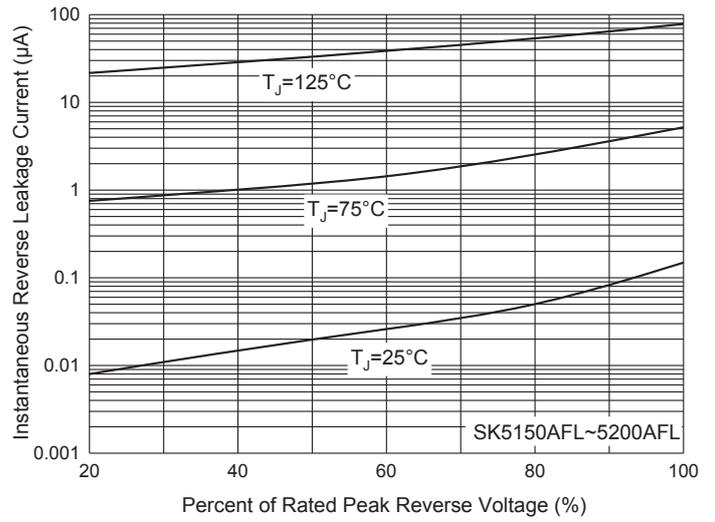


Fig. 10 - Typical Reverse Leakage Characteristics



Ordering Information

| Device | Packing |
|----------------|------------------------|
| Part Number-TP | Tape&Reel: 10Kpcs/Reel |

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