

Features

- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Ultra Fast Recovery
- High Reliability
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix Designates Compliant. See Ordering Information)

Maximum Ratings

- Operating Junction Temperature Range: -65°C to +150°C
- Storage Temperature Range: -65°C to +150°C
- Thermal Resistance: 80°C/W Junction to Ambient

| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------|--|---------------------|-----------------------------|
| UFM11PL | U1 | 50V | 35V | 50V |
| UFM12PL | U2 | 100V | 70V | 100V |
| UFM13PL | U3 | 200V | 140V | 200V |
| UFM14PL | U4 | 400V | 280V | 400V |
| UFM15PL | U5 | 600V | 420V | 600V |
| UFM16PL | U6 | 800V | 560V | 800V |
| UFM17PL | U7 | 1000V | 700V | 1000V |

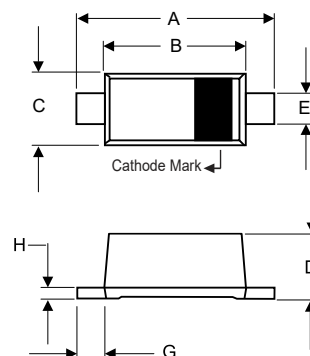
Electrical Characteristics @ 25°C Unless Otherwise Specified

| | | | |
|--|-------------|--------------------------|---|
| Average Forward Current | $I_{F(AV)}$ | 1.0A | $T_L=90^\circ\text{C}$ |
| Peak Forward Surge Current | I_{FSM} | 30A | 8.3ms, Half Sine |
| Maximum Instantaneous Forward Voltage UFM11PL-UFM13PL UFM14PL UFM15PL-UFM17PL | V_F | 1.0V 1.4V 1.7V | $I_{FM}=1.0A$; $T_A=25^\circ\text{C}$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I_R | 10 μ A 50 μ A | $T_A=25^\circ\text{C}$; $T_A=125^\circ\text{C}$ |
| Maximum Reverse Recovery Time UFM11PL-UFM13PL UFM14PL UFM15PL-UFM17PL | T_{RR} | 35ns 50ns 75ns | $I_F=0.5A$; $I_R=1.0A$; $I_{rr}=0.25A$ |
| Typical Junction Capacitance | C_J | 20pF | Measured at 1.0MHz, $V_R=4.0V$ |

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

1 Amp Ultra Fast Recovery Silicon Rectifier 50 to 1000 Volts

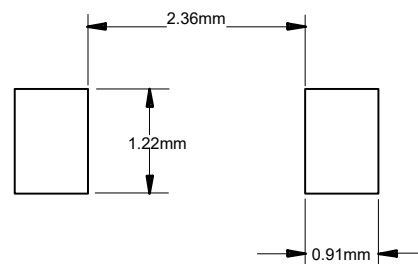
SOD-123FL



DIMENSIONS

| DIM | INCHES | | MM | | NOTE |
|-----|--------|-------|------|------|------|
| | MIN | MAX | MIN | MAX | |
| A | 0.130 | 0.152 | 3.30 | 3.85 | |
| B | 0.100 | 0.122 | 2.55 | 3.10 | |
| C | 0.055 | 0.075 | 1.40 | 1.90 | |
| D | 0.035 | 0.053 | 0.90 | 1.35 | |
| E | 0.020 | 0.041 | 0.50 | 1.05 | |
| G | 0.010 | ---- | 0.25 | ---- | |
| H | ---- | 0.010 | ---- | 0.25 | |

Suggested Solder Pad Layout



Curve Characteristics

Fig. 1 - Forward Current Derating Curve

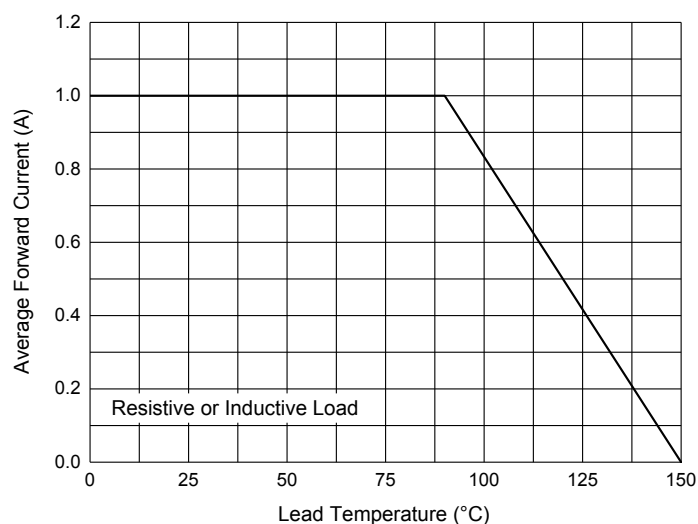


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

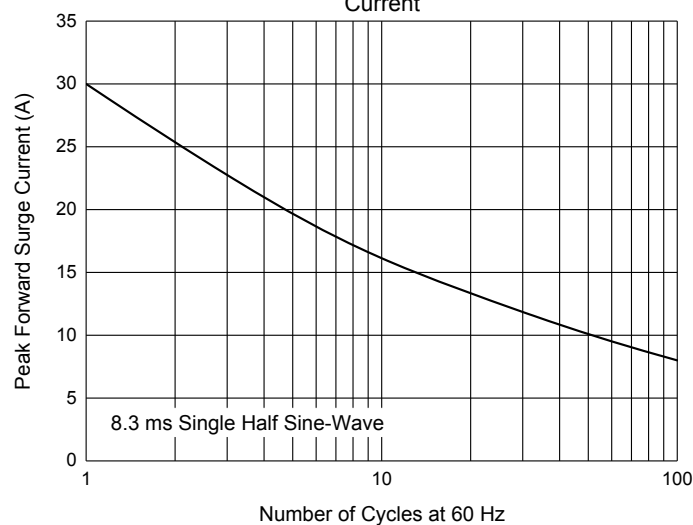


Fig. 3 - Typical Instantaneous Forward Characteristics

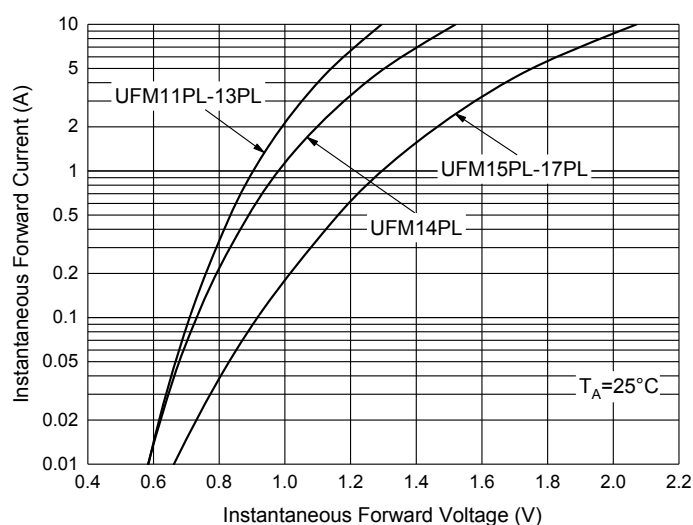
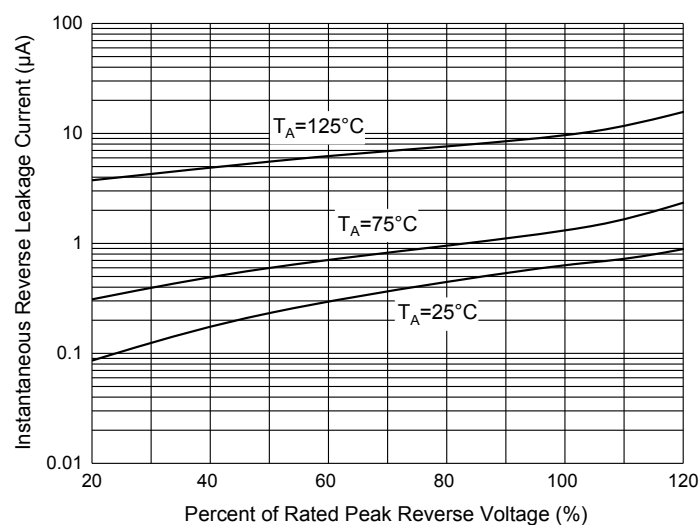


Fig. 4 - Typical Reverse Leakage Characteristics



Ordering Information

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

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

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