

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 | V008 |
| UFM17PL | U7 | 1000V | 700V | 1000V |

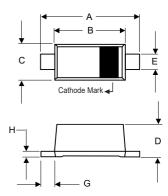
Electrical Characteristics @ 25°C Unless Otherwise Specified

| Average Forward Current | I _{F(AV)} | 1.0A | T _L =90°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°C |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I _R | 10μΑ 50μΑ | T _A =25°C; T _A =125°C |
| Maximum Reverse Recovery Time UFM11PL-UFM13PL UFM14PL UFM15PL-UFM17PL | T _{RR} | 35ns 50ns 75ns | I _F =0.5A; I _R =1.0A; Irr=0.25A |
| Typical Junction Capacitance | Сл | 20pF | Measured at 1.0MHz, V _R =4.0V |

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

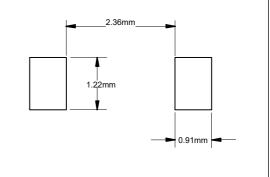
1 Amp Ultra Fast Recovery Silicon Rectifier 50 to 1000 Volts

SOD-123FL



| DIMENSIONS | | | | | | |
|------------|--------|-------|------|------|------|--|
| DIM | INCHES | | MM | | NOTE | |
| 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 | | |
| E | 0.020 | 0.041 | 0.50 | 1.05 | | |
| G | 0.010 | | 0.25 | | | |
| Н | | 0.010 | | 0.25 | | |

Suggested Solder Pad Layout





Curve Characteristics

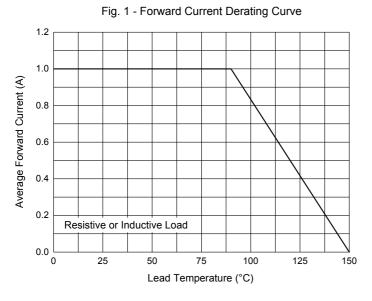


Fig. 3 - Typical Instantaneous Forward Characteristics

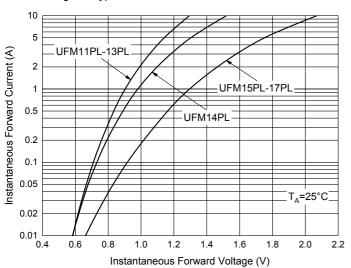
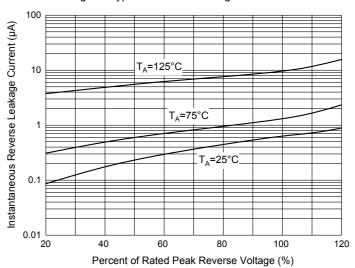


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge
Current

35
30
20
20
15
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 | |

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

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