

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 +150°C
- Storage Temperature Range: -55°C to +150°C
- Typical Thermal Resistance: 20°C/W Junction to Lead(Notes3)
- Typical Thermal Resistance: 60°C/W Junction to Ambient (Notes3)

| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------|--|---------------------|-----------------------------|
| MURS1JAFL | UR1JL | 600V | 420V | 600V |

Electrical Characteristics @ 25°C Unless Otherwise Specified

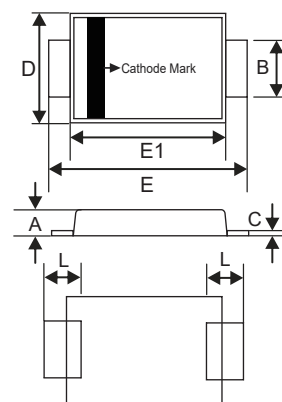
| | | | |
|---|-------------|------------------------|------------------------------------|
| Average Forward Current | $I_{F(AV)}$ | 1.0A | $T_L=120^\circ\text{C}$ |
| Peak Forward Surge Current | I_{FSM} | 30A | 8.3ms, Half Sine |
| Maximum Instantaneous Forward Voltage | V_F | 1.4V(Max) 1.2V(Typ) | $I_{FM}=1.0A$ |
| Maximum DC Reverse Current at Rated DC Blocking Voltage | I_R | 5.0µA | $T_J=25^\circ\text{C}$ |
| Maximum Reverse Recovery Time | t_{rr} | 35ns | $I_F=0.5A; I_R=1.0A; I_{rr}=0.25A$ |
| Typical Junction Capacitance | C_J | 15pF | Measured at 1.0MHz $V_R=4.0V$ |

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 Notes 7a.
3. Mounted on P.C.B. With 0.2" x 0.2" (5.0 mm x 5.0 mm) Copper Pad Areas.

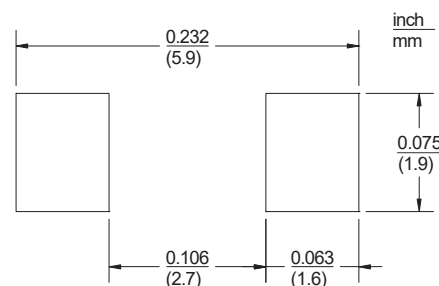
1 Amp Super Fast Recovery Rectifier 600 Volts

DO-221AC(SMA-FL)



| DIM | INCHES | | MM | | NOTE |
|-----|--------|-------|------|------|------|
| | MIN | MAX | MIN | MAX | |
| 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

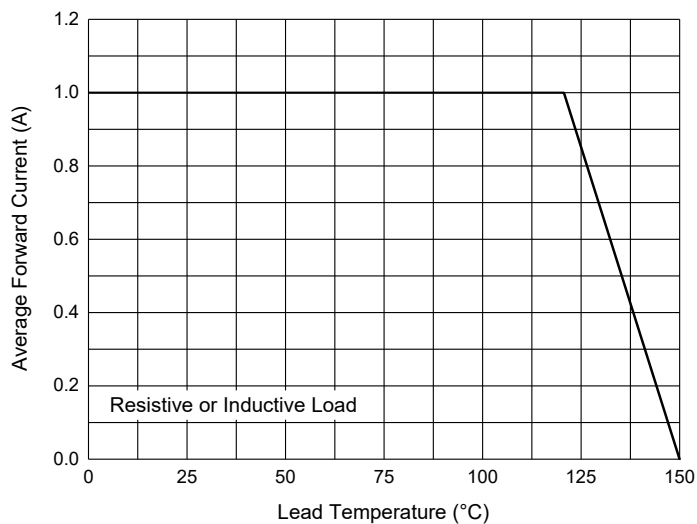


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

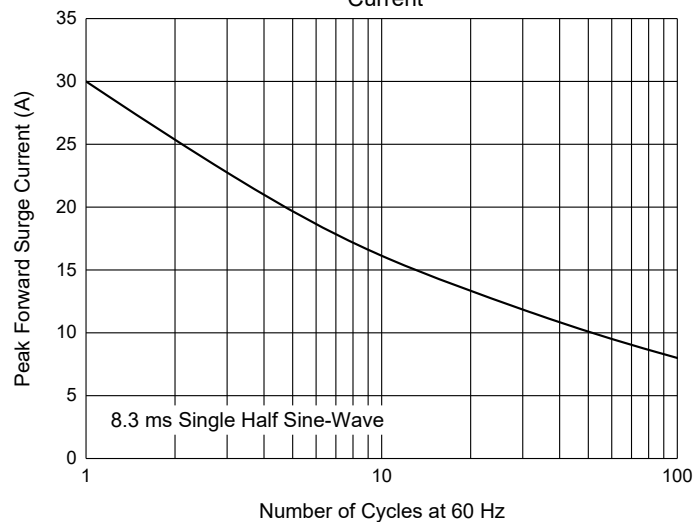


Fig. 3 - Typical Instantaneous Forward Characteristics

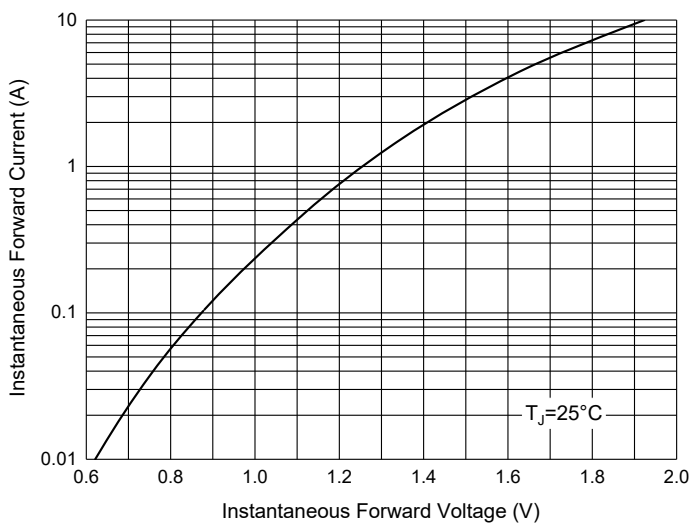
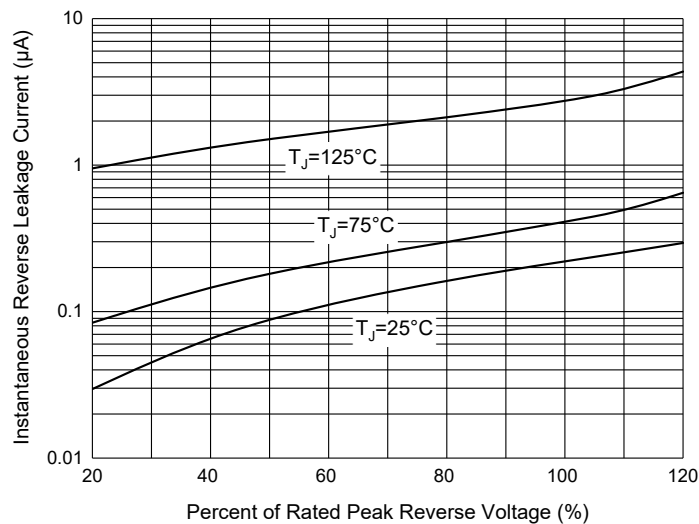


Fig. 4 - Typical Reverse Leakage Characteristics



Ordering Information

| Device | Packing |
|--------------|------------------------|
| MURS1JAFL-TP | Tape&Reel: 10Kpcs/Reel |

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