

## 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

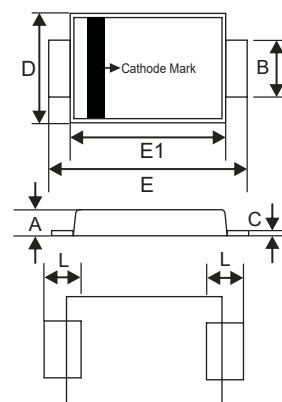
|   |             |                        |                                    |
|---|-------------|------------------------|------------------------------------|
| Average Forward Current                                 | $I_{F(AV)}$ | 1.0A                   | $T_L=120^\circ\text{C}$            |
| Peak Forward Surge Current                              | $I_{FSM}$   | 30A                    | 8.3ms, Half Sine                   |
| Maximum Instantaneous Forward Voltage                   | $V_F$       | 1.4V(Max)<br>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<br>$V_R=4.0V$   |

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.

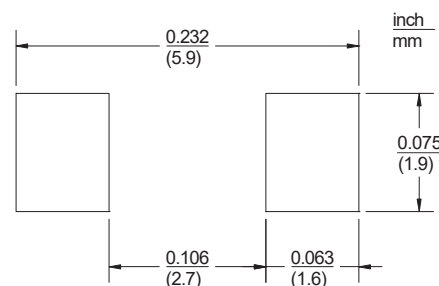
# 1 Amp Super Fast Recovery Rectifier 600 Volts

## 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

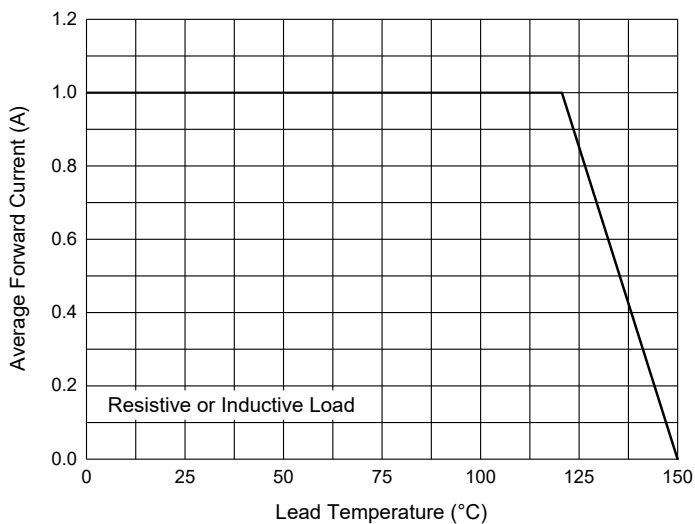


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

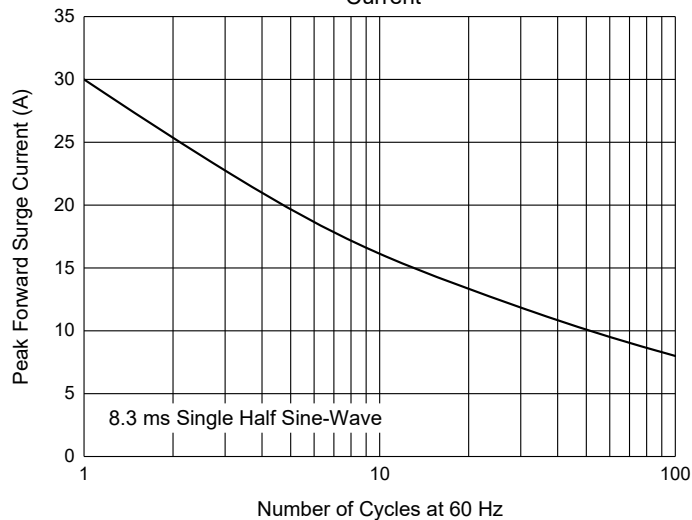


Fig. 3 - Typical Instantaneous Forward Characteristics

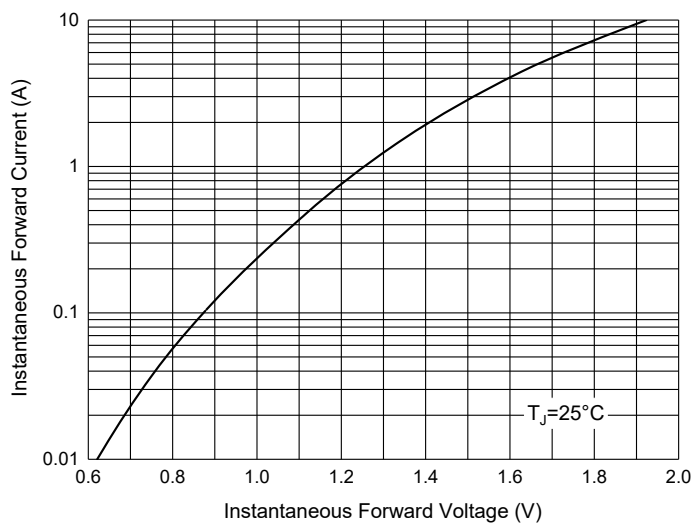
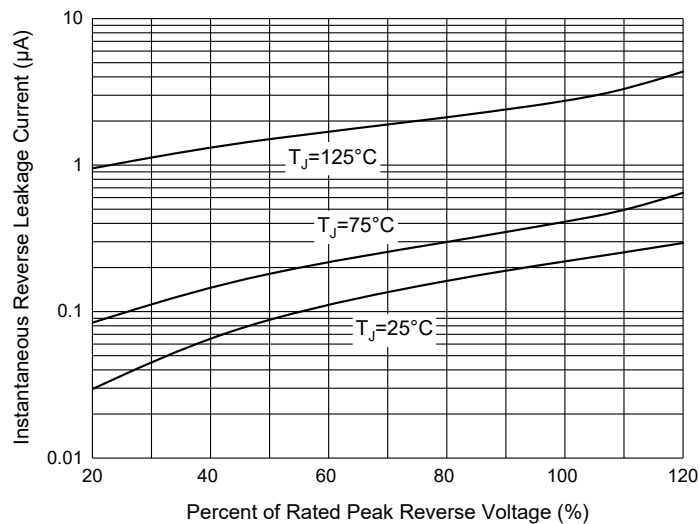


Fig. 4 - Typical Reverse Leakage Characteristics



## Ordering Information

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

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