

### Features

- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Lead Free Finish/RoHS Compliant(Note 1) ("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
- Maximum Thermal Resistance: 20°C/W Junction to Lead

| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------|--|---------------------|-----------------------------|
| MURS1JAL        | UR1JA          | 600V                                   | 420V                | 600V                        |

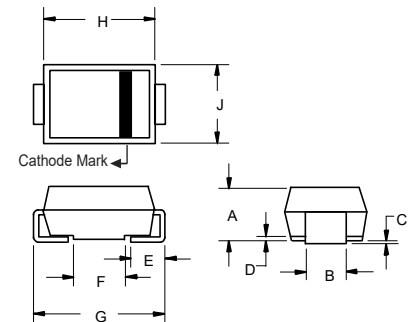
### Electrical Characteristics @ 25°C Unless Otherwise Specified

|   |             |                        |                                    |
|---|-------------|------------------------|------------------------------------|
| Average Forward Current                                 | $I_{F(AV)}$ | 1.0A                   | $T_L=125^\circ\text{C}$            |
| 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. High Temperature Solder Exemption Applied, See EU Directive Annex Notes 7a.

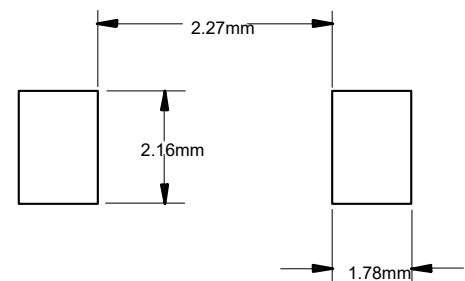
# 1 Amp Super Fast Recovery Rectifier 600 Volts

## SMA (DO-214AC)



| DIM | DIMENSIONS |       |       |       | NOTE |
|-----|------------|-------|-------|-------|------|
|     | INCHES     |       | MM    |       |      |
|     | MIN        | MAX   | MIN   | MAX   |      |
| A   | 0.079      | 0.096 | 2.00  | 2.44  |      |
| B   | 0.050      | 0.064 | 1.27  | 1.63  |      |
| C   | 0.002      | 0.008 | 0.051 | 0.203 |      |
| D   | ---        | 0.020 | ---   | 0.51  |      |
| E   | 0.030      | 0.060 | 0.76  | 1.52  |      |
| F   | 0.065      | 0.091 | 1.65  | 2.32  |      |
| G   | 0.189      | 0.220 | 4.80  | 5.59  |      |
| H   | 0.157      | 0.181 | 4.00  | 4.60  |      |
| J   | 0.090      | 0.115 | 2.25  | 2.92  |      |

### SUGGESTED SOLDER PAD LAYOUT



**Curve Characteristics**

Fig. 1 - Forward Current Derating Curve

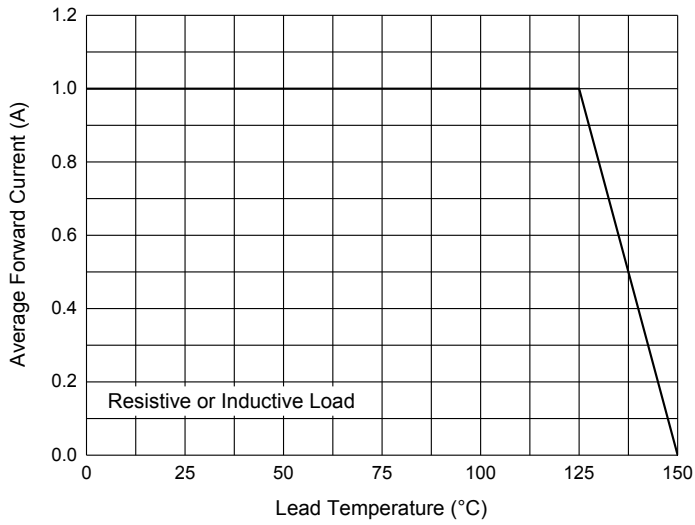


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

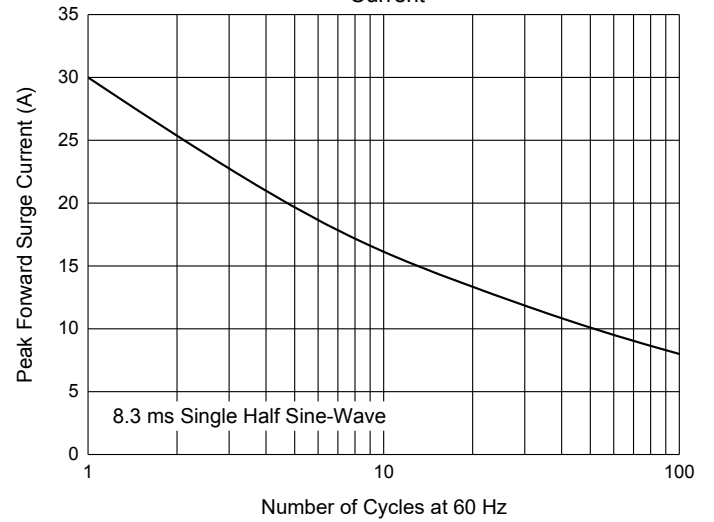


Fig. 3 - Typical Instantaneous Forward Characteristics

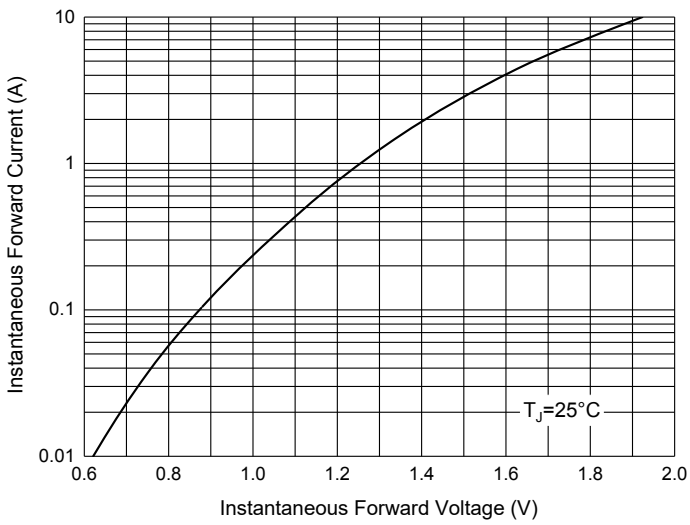
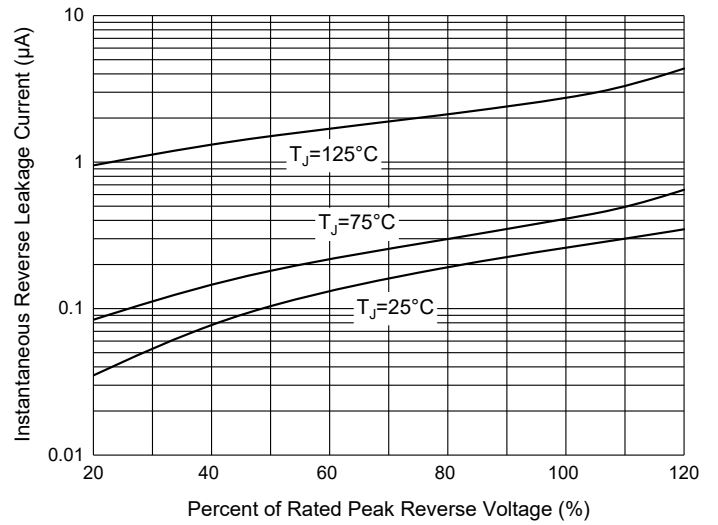


Fig. 4 - Typical Reverse Leakage Characteristics



## Ordering Information

| Device      | Packing               |
|-------------|-----------------------|
| MURS1JAL-TP | Tape&Reel: 5Kpcs/Reel |

Note : Adding "-HF" Suffix For Halogen Free, eg. MURS1JAL-TP-HF

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