

## Features

- 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
- Glass Passivated Chip
- Halogen Free Available Upon Request By Adding Suffix "-HF"

## Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Maximum Thermal Resistance: 35°C/W Junction to Lead
- Maximum Thermal Resistance: 85°C/W Junction to Ambient

| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------|--|---------------------|-----------------------------|
| UG1A            | UG1A           | 50V                                    | 35V                 | 50V                         |
| UG1B            | UG1B           | 100V                                   | 70V                 | 100V                        |
| UG1C            | UG1C           | 150V                                   | 105V                | 150V                        |
| UG1D            | UG1D           | 200V                                   | 140V                | 200V                        |
| UG1F            | UG1F           | 300V                                   | 210V                | 300V                        |
| UG1G            | UG1G           | 400V                                   | 280V                | 400V                        |

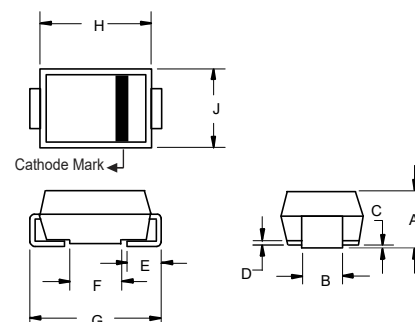
## Electrical Characteristics @ 25°C Unless Otherwise Specified

|   |             |                |  |
|---|-------------|----------------|--|
| 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<br>UG1A-UG1D<br>UG1F-UG1G | $V_F$       | 0.92V<br>1.25V | $I_{FM}=1.0A;$                                     |
| Maximum DC Reverse Current At Rated DC Blocking Voltage         | $I_R$       | 5.0μA<br>100μA | $T_A=25^\circ\text{C};$<br>$T_A=100^\circ\text{C}$ |
| Maximum Reverse Recovery Time                                   | $t_{rr}$    | 25ns           | $I_F=0.5A; I_R=1.0A;$<br>$I_{rr}=0.25A$            |

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

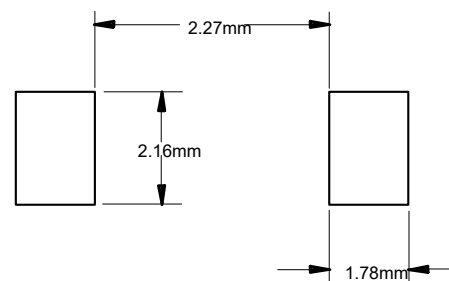
# 1 Amp Super Fast Recovery Rectifier 50 to 400 Volts

## SMA (DO-214AC)



| DIM | INCHES |       | MM    |       | NOTE |
|-----|--------|-------|-------|-------|------|
|     | MIN    | MAX   | MIN   | MAX   |      |
| A   | 0.075  | 0.096 | 1.90  | 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  | 0.187 | 4.00  | 4.75  |      |
| J   | 0.090  | 0.115 | 2.25  | 2.92  |      |

## SUGGESTED SOLDER PAD LAYOUT



## Curve Characteristics

Fig. 1 - Forward Current Derating Curve

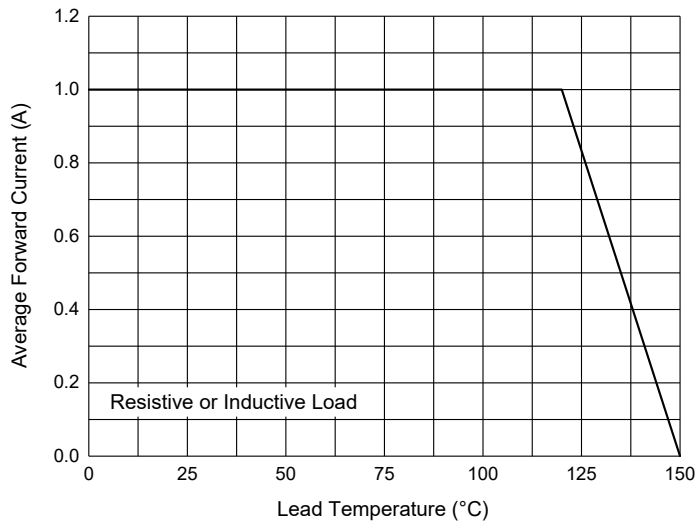


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

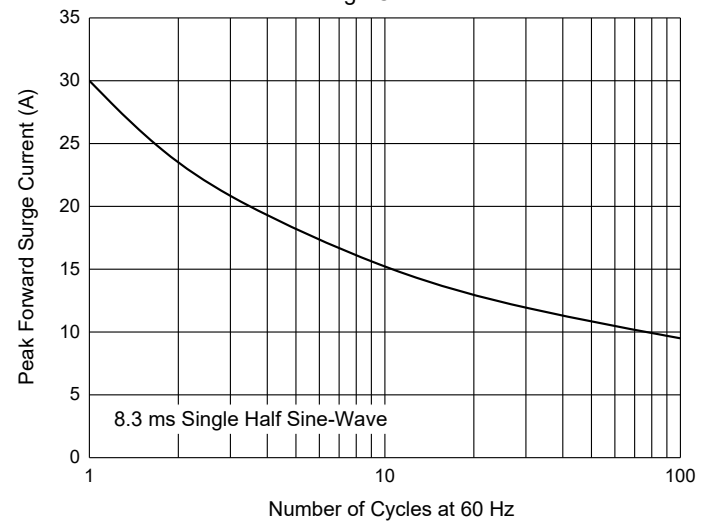


Fig. 3 - Typical Instantaneous Forward Characteristics

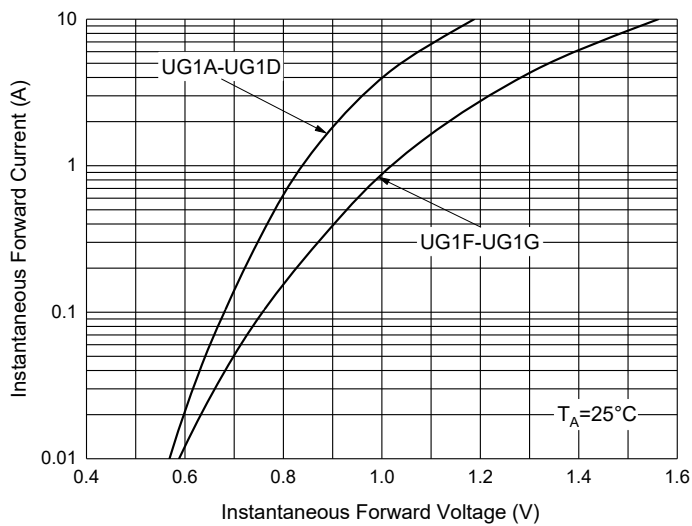
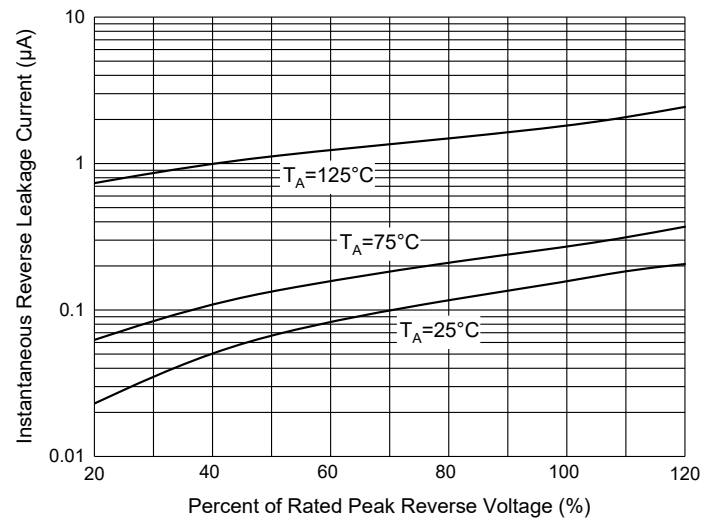


Fig. 4 - Typical Reverse Leakage Characteristics



## Ordering Information

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

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

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