

## 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
- Super Fast Recovery Times With EPI Die For High Efficiency
- 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
- Typical Thermal Resistance: 25°C/W Junction to Lead
- Typical Thermal Resistance: 35°C/W Junction to Ambient

| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage | Working Peak Reverse Voltage |
|-----------------|----------------|----------------------------------------|---------------------|-----------------------------|------------------------------|
| MURS3G          | MURS3G         | 400V                                   | 280V                | 400V                        | 300V                         |

## Electrical Characteristics @ 25°C Unless Otherwise Specified

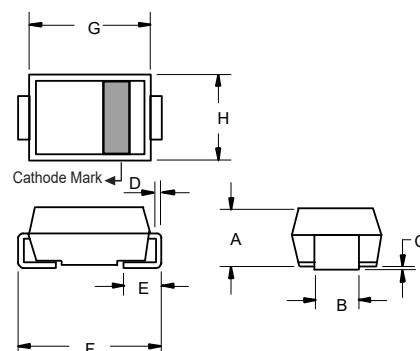
|                                                                            |             |                                        |                                                              |
|----------------------------------------------------------------------------|-------------|----------------------------------------|--------------------------------------------------------------|
| Average Forward Current                                                    | $I_{F(AV)}$ | 3.0A                                   | $T_L=110^\circ\text{C}$                                      |
| Peak Forward Surge Current                                                 | $I_{FSM}$   | 100A                                   | 8.3ms, Half Sine                                             |
| Maximum Instantaneous Forward Voltage                                      | $V_F$       | 1.0V<br>0.92V(typ)                     | $I_{FM}=3.0\text{A};$<br>$T_J=25^\circ\text{C}^*$            |
| Maximum DC Reverse Current At Rated DC Blocking Voltage                    | $I_R$       | 5.0 $\mu\text{A}$<br>200 $\mu\text{A}$ | $T_J=25^\circ\text{C};$<br>$T_J=100^\circ\text{C}$           |
| Maximum Reverse Recovery Time                                              | $T_{RR}$    | 35ns                                   | $I_F=0.5\text{A}; I_R=1.0\text{A};$<br>$I_{rr}=0.25\text{A}$ |
| Pulse Energy in Avalanche Mode, Non Repetitive (Inductive Load Switch Off) | $E_R$       | 25mJ                                   | $I_{(BR)R}=1\text{A}, T_J=25^\circ\text{C}$                  |
| Typical Junction Capacitance                                               | $C_J$       | 40pF                                   | Measured at 1.0MHz, $V_R=4.0\text{V}$                        |

\*Pulse Test: Pulse Width 300  $\mu\text{sec}$ , Duty Cycle 2%

1. High Temperature Solder Exemptions Applied, See EU Directive Annex 7a.

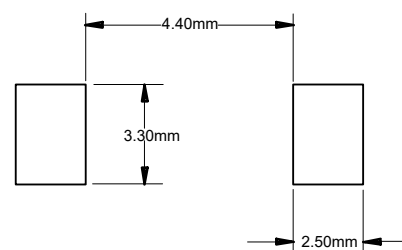
# 3 Amp Super Fast Recovery Rectifier 400 Volts

## SMC (DO-214AB)



| DIM | INCHES |       | MM    |       | NOTE |
|-----|--------|-------|-------|-------|------|
|     | MIN    | MAX   | MIN   | MAX   |      |
| A   | 0.079  | 0.103 | 2.00  | 2.62  |      |
| B   | 0.108  | 0.128 | 2.75  | 3.25  |      |
| C   | 0.002  | 0.008 | 0.051 | 0.203 |      |
| D   | 0.006  | 0.012 | 0.152 | 0.305 |      |
| E   | 0.030  | 0.060 | 0.76  | 1.52  |      |
| F   | 0.305  | 0.320 | 7.75  | 8.13  |      |
| G   | 0.260  | 0.280 | 6.60  | 7.11  |      |
| H   | 0.220  | 0.245 | 5.59  | 6.22  |      |

## Suggested Solder Pad Layout



## Curve Characteristics

Fig. 1 - Forward Current Derating Curve

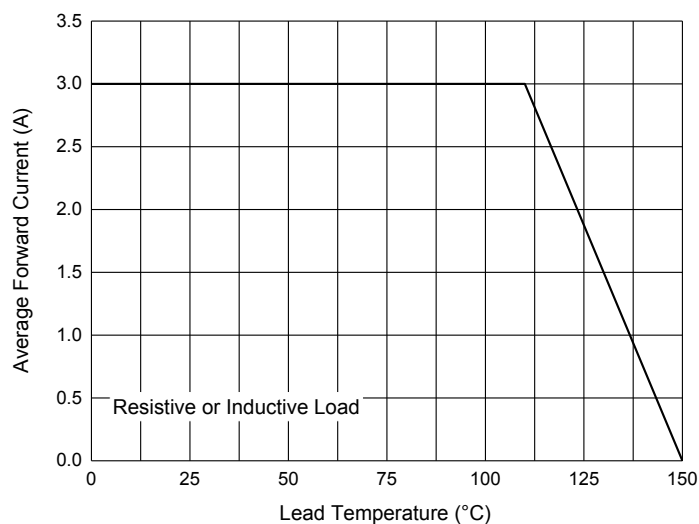


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

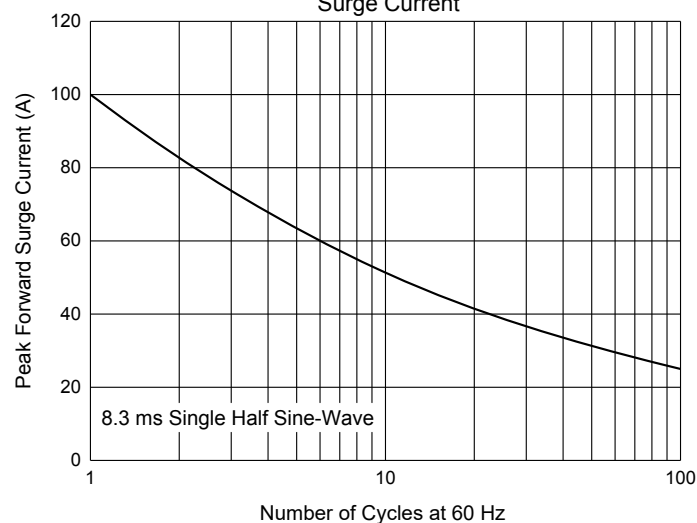


Fig. 3 - Typical Instantaneous Forward Characteristics

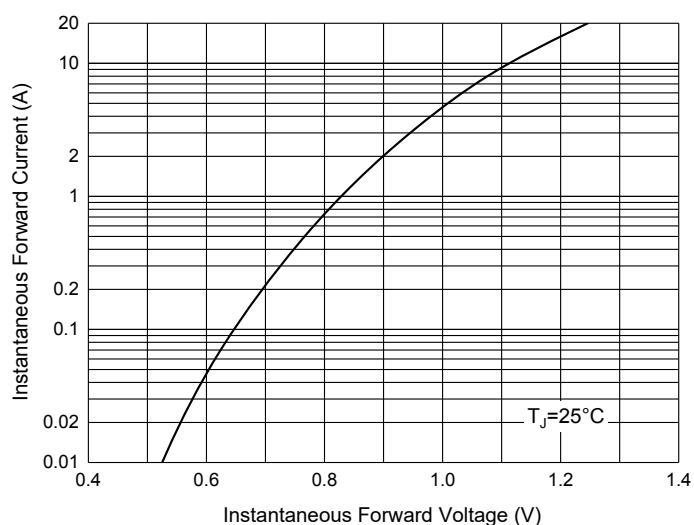
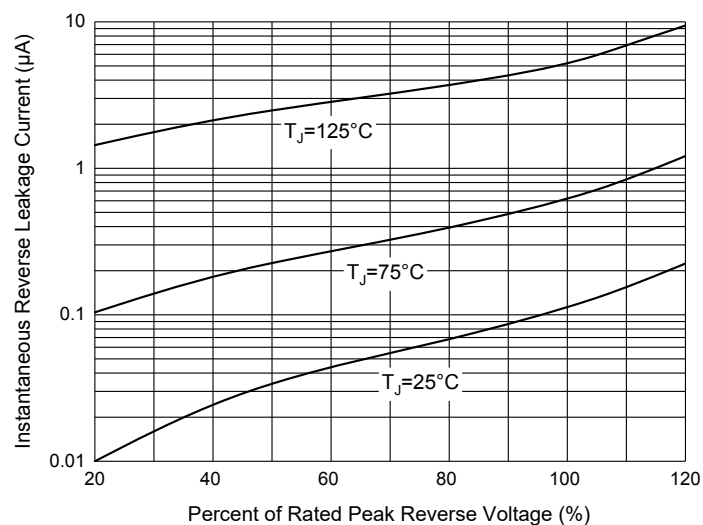


Fig. 4 - Typical Reverse Leakage Characteristics



## Ordering Information

| Device         | Packing               |
|----------------|-----------------------|
| Part Number-TP | Tape&Reel: 3Kpcs/Reel |

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

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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