

Features

- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix Designates Compliant. See Ordering Information)
- Glass Passivated Chip
- High Surge Forward Current Capability
- Epoxy Meets UL 94 V-0 Flammability Rating
- 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: 2.0°C/W Junction to Case

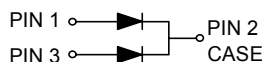
| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------|--|---------------------|-----------------------------|
| MUR2010CT | MUR2010CT | 100V | 70V | 100V |
| MUR2015CT | MUR2015CT | 150V | 105V | 150V |
| MUR2020CT | MUR2020CT | 200V | 140V | 200V |
| MUR2040CT | MUR2040CT | 400V | 280V | 400V |
| MUR2060CT | MUR2060CT | 600V | 420V | 600V |

Electrical Characteristics @ 25°C Unless Otherwise Specified

| | | | |
|---|-------------|--|---|
| Average Forward Current | $I_{F(AV)}$ | 20A | $T_C=90^\circ\text{C}$ |
| Peak Forward Surge Current | I_{FSM} | 125A | 8.3ms, Half Sine |
| Maximum Forward Voltage Drop Per Element | V_F | MUR2010CT-2020CT: 0.975V MUR2040CT: 1.3V MUR2060CT: 1.5V | $I_{FM}=10A$; $T_A=25^\circ\text{C}$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I_R | 10 μA 500 μA | $T_A=25^\circ\text{C}$; $T_A=125^\circ\text{C}$ |
| Maximum Reverse Recovery Time | T_{RR} | MUR2010CT-2020CT: 35ns MUR2040CT-2060CT: 50ns | $I_F=0.5A$; $I_R=1.0A$; $I_{rr}=0.25A$ |
| Typical Junction Capacitance | C_J | 100pF | Measured at 1.0MHz, $V_R=4.0V$ |

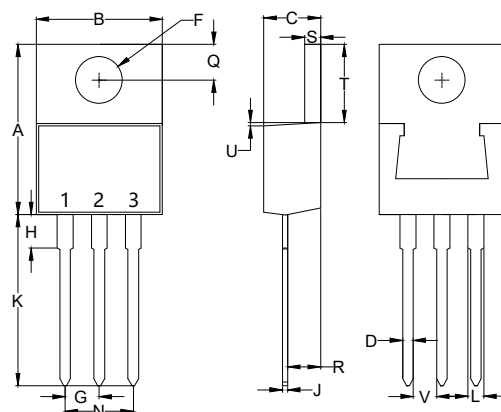
Note :1. High Temperature Solder Exemption Applied, See EU Directive Annex 7a.

Internal Structure



20 Amp Super Fast Glass Passivated Rectifier 100 to 600 Volts

TO-220AB



DIMENSIONS

| DIM | INCHES | | MM | | NOTE |
|-----|--------|-------|-------|-------|--------|
| | MIN | MAX | MIN | MAX | |
| A | 0.560 | 0.625 | 14.22 | 15.88 | |
| B | 0.380 | 0.429 | 9.65 | 10.90 | |
| C | 0.140 | 0.201 | 3.56 | 5.10 | |
| D | 0.020 | 0.045 | 0.51 | 1.14 | |
| F | 0.131 | 0.170 | 3.34 | 4.31 | Φ |
| G | 0.079 | 0.121 | 2.01 | 3.07 | |
| H | ----- | 0.250 | ----- | 6.35 | |
| J | 0.011 | 0.025 | 0.28 | 0.64 | |
| K | 0.500 | 0.580 | 12.70 | 14.73 | |
| L | 0.045 | 0.060 | 1.14 | 1.52 | |
| N | 0.158 | 0.242 | 4.02 | 6.14 | |
| Q | 0.087 | 0.135 | 2.22 | 3.43 | |
| R | 0.080 | 0.126 | 2.04 | 3.19 | |
| S | 0.045 | 0.055 | 1.14 | 1.39 | |
| T | 0.230 | 0.270 | 5.84 | 6.86 | |
| U | ----- | 0.050 | ----- | 1.27 | |
| V | 0.045 | ----- | 1.15 | ----- | |

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

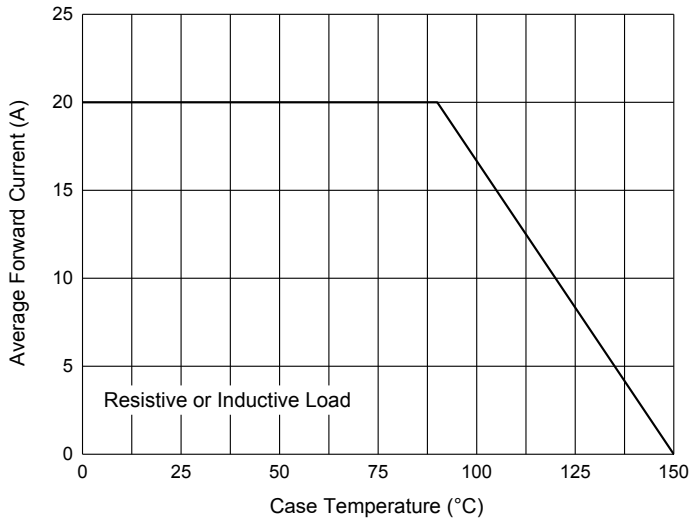


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

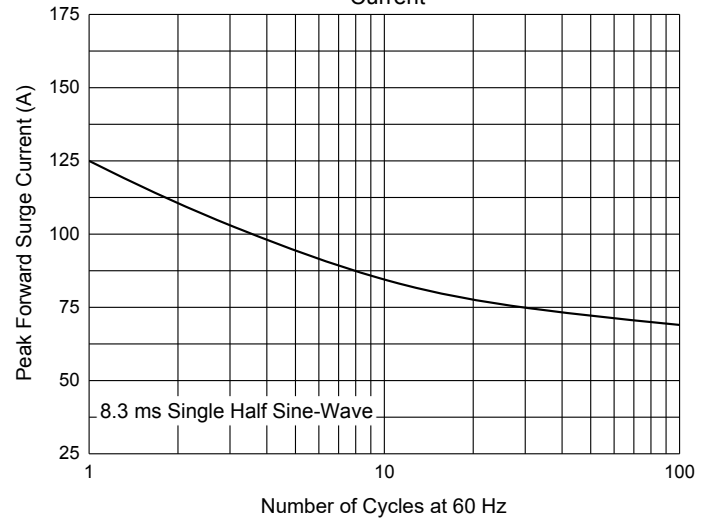


Fig. 3 - Typical Instantaneous Forward Characteristics

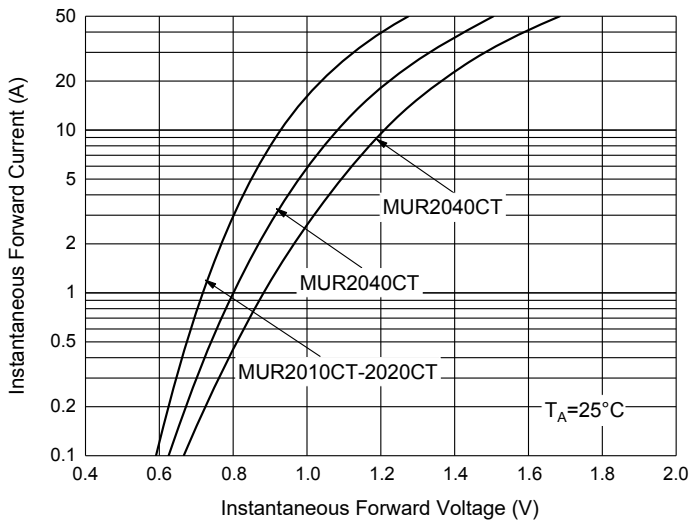
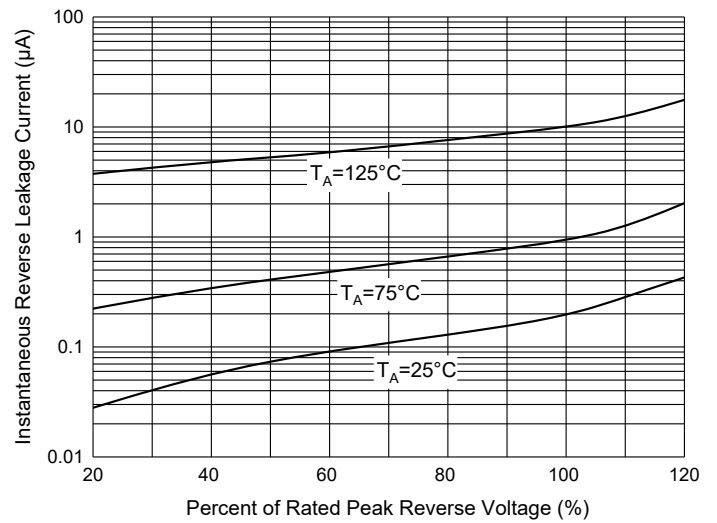


Fig. 4 - Typical Reverse Leakage Characteristics



Ordering Information

| Device | Packing |
|----------------|---|
| Part Number-BP | Bulk:50pcs/Tube, 1Kpcs/Box,5Kpcs/Carton |

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

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