

Features

- Low Forward Voltage, High Current Capability
- High Surge Capacity
- Super Fast Recovery Times, High Voltage
- 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

**16 Amp
Super Fast
Recovery Rectifier
50 to 600 Volts**

Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Typical Thermal Resistance: 2.5°C/W Junction to Case

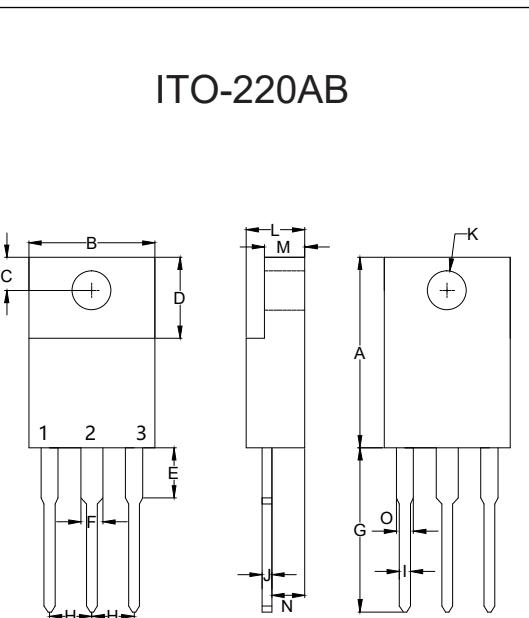
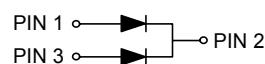
| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------|--|---------------------|-----------------------------|
| MUR1605FCT | MUR1605FCT | 50V | 35V | 50V |
| MUR1610FCT | MUR1610FCT | 100V | 70V | 100V |
| MUR1615FCT | MUR1615FCT | 150V | 105V | 150V |
| MUR1620FCT | MUR1620FCT | 200V | 140V | 200V |
| MUR1630FCT | MUR1630FCT | 300V | 210V | 300V |
| MUR1640FCT | MUR1640FCT | 400V | 280V | 400V |
| MUR1660FCT | MUR1660FCT | 600V | 420V | 600V |

Electrical Characteristics @ 25°C Unless Otherwise Specified

| | | | |
|---|-------------|--|---|
| Average Forward Current | $I_{F(AV)}$ | 16A | $T_C=90^\circ\text{C}$ |
| Peak Forward Surge Current | I_{FSM} | 120A | 8.3ms, Half Sine |
| Maximum Instantaneous Forward Voltage MUR1605FCT-1620FCT | V_F | 0.95V 0.85V 1.3V 1.1V 1.7V 1.5V | $I_{FM}=8\text{A}, T_A=25^\circ\text{C};$ $I_{FM}=8\text{A}, T_A=125^\circ\text{C};$ $I_{FM}=8\text{A}, T_A=25^\circ\text{C};$ $I_{FM}=8\text{A}, T_A=125^\circ\text{C};$ $I_{FM}=8\text{A}, T_A=25^\circ\text{C};$ $I_{FM}=8\text{A}, T_A=125^\circ\text{C};$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I_R | 5 μA 500 μA | $T_A=25^\circ\text{C};$ $T_A=150^\circ\text{C}$ |
| Maximum Reverse Recovery Time MUR1605FCT-1620FCT MUR1630FCT-1660FCT | t_{rr} | 35ns 50ns | $I_F=0.5\text{A}; I_R=1.0\text{A};$ $I_{rr}=0.25\text{A}$ |

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

Internal Structure



| DIM | DIMENSIONS | | | | NOTE |
|-----|------------|-------|-------|-------|------|
| | INCHES | MIN | MAX | MM | |
| A | 0.567 | 0.642 | 14.40 | 16.30 | |
| B | ----- | 0.421 | ----- | 10.70 | |
| C | 0.085 | 0.128 | 2.15 | 3.25 | |
| D | 0.248 | 0.272 | 6.30 | 6.90 | |
| E | ----- | 0.177 | ----- | 4.50 | |
| F | ----- | 0.071 | ----- | 1.80 | |
| G | 0.500 | 0.539 | 12.70 | 14.20 | |
| H | 0.100 | 0.100 | 2.55 | 2.55 | |
| I | ----- | 0.035 | ----- | 0.90 | |
| J | ----- | 0.032 | ----- | 0.80 | |
| K | 0.102 | 0.150 | 2.60 | 3.80 | Φ |
| L | ----- | 0.201 | ----- | 5.10 | |
| M | ----- | 0.140 | ----- | 3.56 | |
| N | 0.083 | 0.126 | 2.10 | 3.20 | |
| O | ----- | 0.071 | ----- | 1.80 | |

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

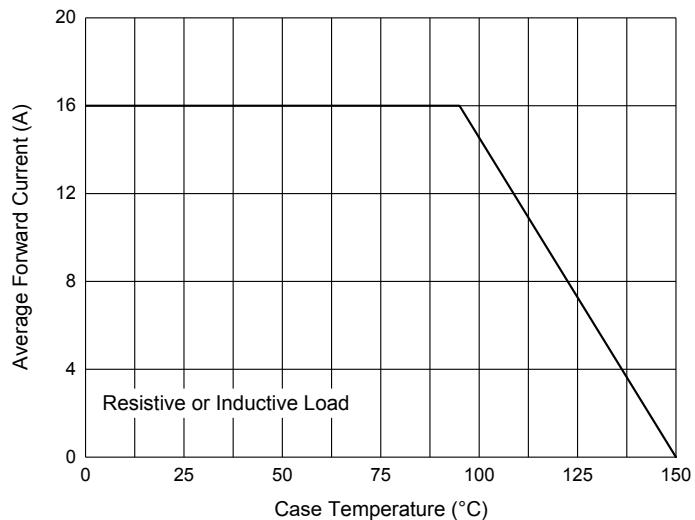


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

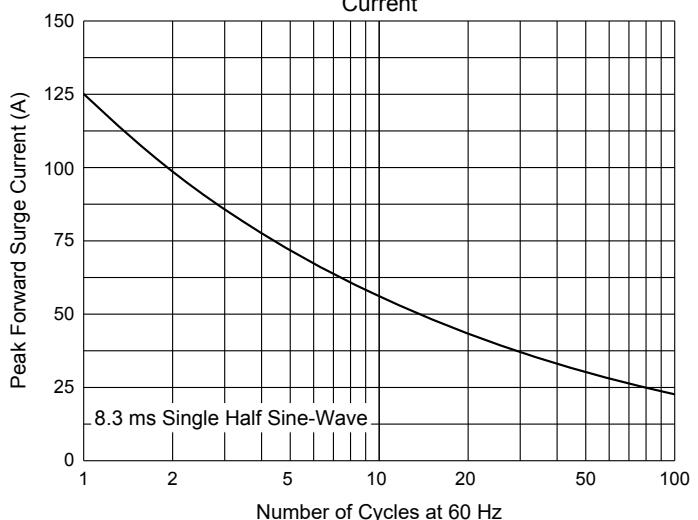


Fig. 3 - Typical Instantaneous Forward Characteristics

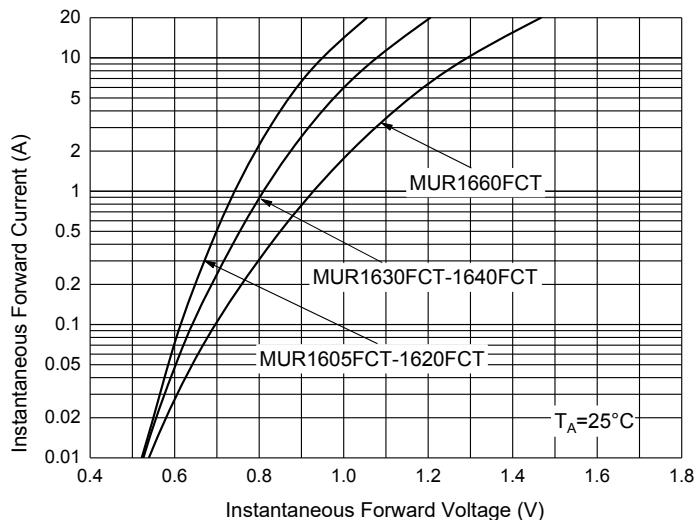


Fig. 4 - Typical Reverse Leakage Characteristics

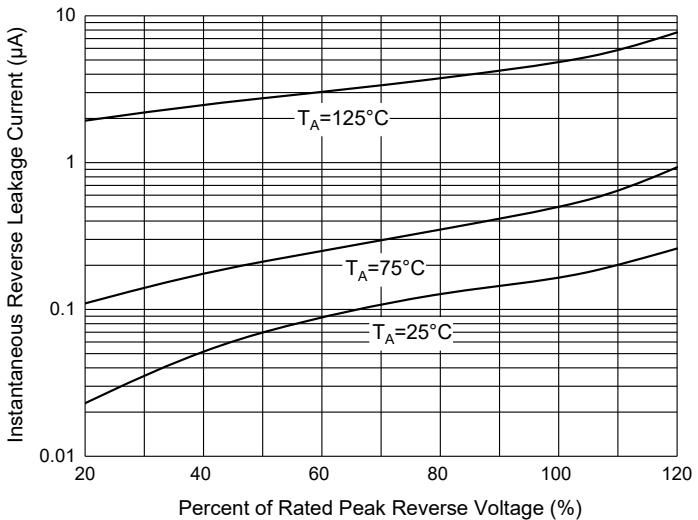


Fig. 5 - Typical Instantaneous Forward Characteristics

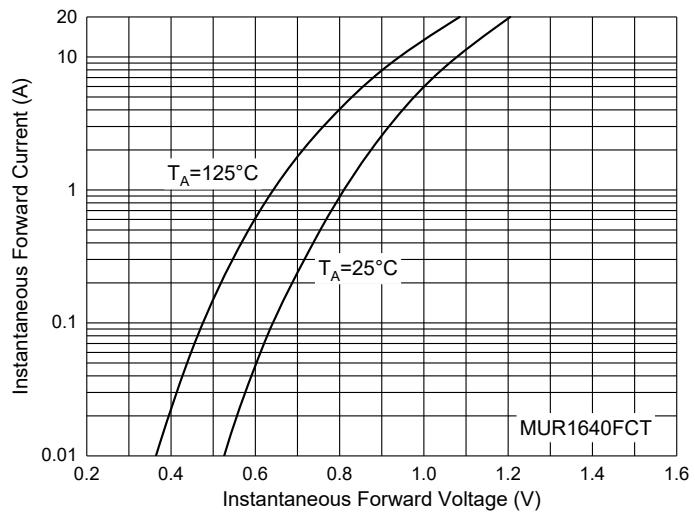
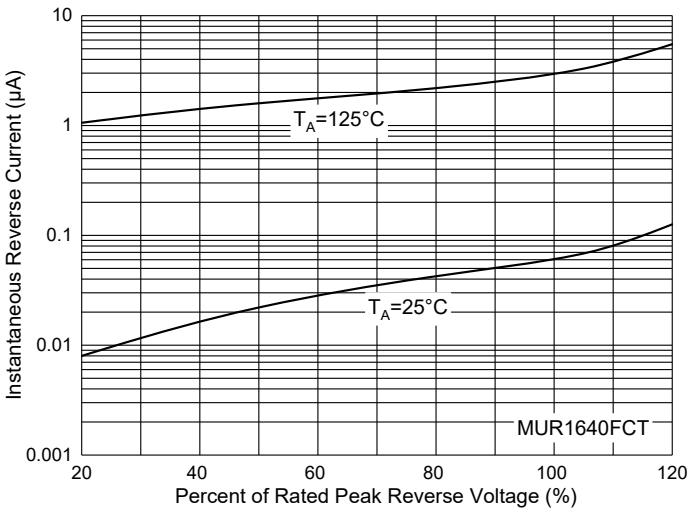


Fig. 6 - Typical Reverse Leakage Characteristics



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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