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MUR1605CT THRU MUR1620CT

Features

- Glass passivated chip
- Superfast switching time for high efficiency
- Low reverse leakage current
- High surge capacity

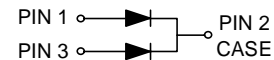
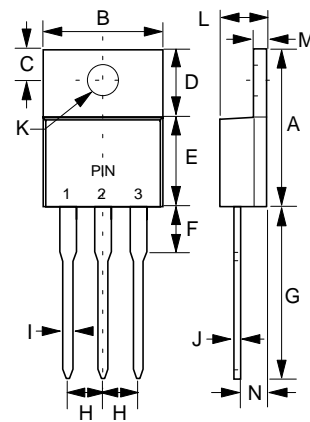
Maximum Ratings

- Operating Junction Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C

| Microsemi Catalog Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|--------------------------|----------------|--|---------------------|-----------------------------|
| MUR1605CT | MUR1605CT | 50V | 35V | 50V |
| MUR1610CT | MUR1610CT | 100V | 70V | 100V |
| MUR1620CT | MUR1620CT | 200V | 140V | 200V |

16 Amp Super Fast Glass Passivated Rectifier 50 to 200 Volts

TO-220AB



Electrical Characteristics @ 25°C Unless Otherwise Specified

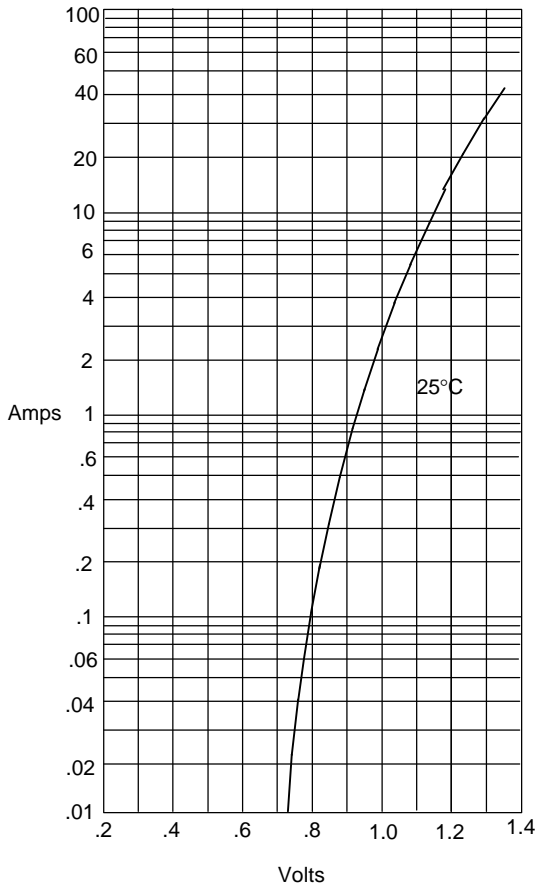
| | | | |
|---|-------------|----------------|---|
| Average Forward Current | $I_{F(AV)}$ | 16 A | $T_C = 120^\circ\text{C}$ |
| Peak Forward Surge Current | I_{FSM} | 90 A | 8.3ms, half sine |
| Maximum Forward Voltage Drop Per Element | V_F | 1.20V 1.25V | $T_J = 25^\circ\text{C}$ $I_{FM}=8\text{A}$ $I_{FM}=16\text{A}$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I_R | 5.0uA 100uA | $T_J = 25^\circ\text{C}$ $T_J = 100^\circ\text{C}$ |
| Maximum Reverse Recovery Time | T_{rr} | 35ns | $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{rr}=0.25\text{A}$ |
| Typical Junction Capacitance | C_J | 80pF | Measured at 1.0MHz, $V_R=4.0\text{V}$ |

| DIM | INCHES | | MM | | NOTE |
|-----|--------|------|-------|-------|------|
| | MIN | MAX | MIN | MAX | |
| A | .560 | .625 | 14.22 | 15.88 | |
| B | .380 | .420 | 9.65 | 10.67 | |
| C | .100 | .135 | 2.54 | 3.43 | |
| D | .230 | .270 | 5.84 | 6.86 | |
| E | .380 | .420 | 9.65 | 10.67 | |
| F | --- | .250 | --- | 6.35 | |
| G | .500 | .580 | 12.70 | 14.73 | |
| H | .090 | .110 | 2.29 | 2.79 | |
| I | .020 | .045 | 0.51 | 1.14 | |
| J | .012 | .025 | 0.30 | 0.64 | |
| K | .139 | .161 | 3.53 | 4.09 | ∅ |
| L | .140 | .190 | 3.56 | 4.83 | |
| M | .045 | .055 | 1.14 | 1.40 | |
| N | .080 | .115 | 2.03 | 2.92 | |

*Pulse Test: Pulse Width 300μsec, Duty Cycle 2%

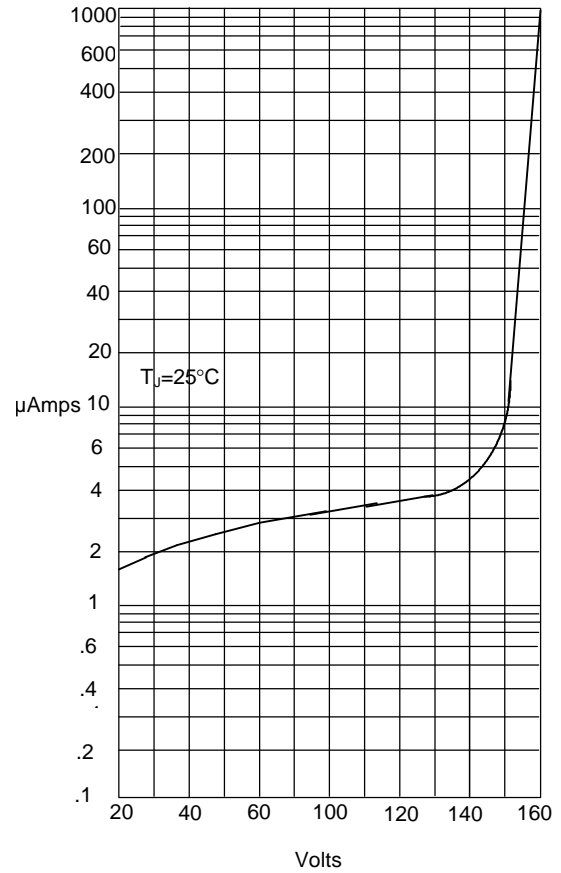
MUR1605CT thru MUR1620CT

Figure 1
Typical Forward Characteristics



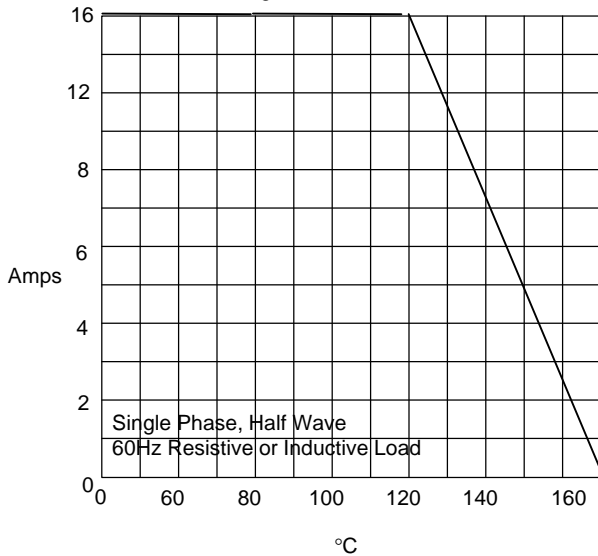
Instantaneous Forward Current - Amperes versus
Instantaneous Forward Voltage - Volts

Figure 2
Typical Reverse Characteristics



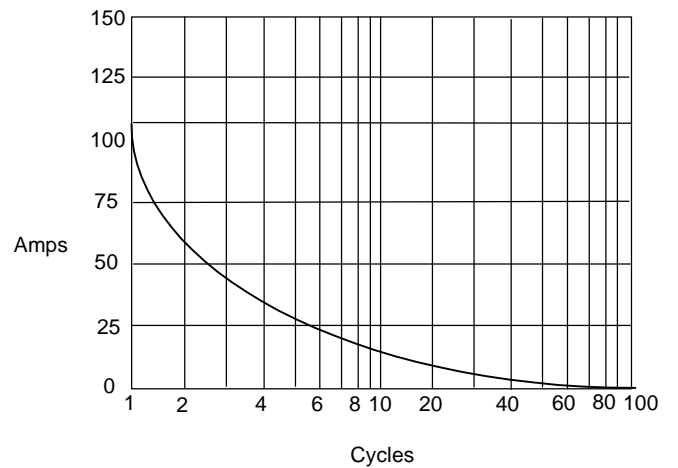
Instantaneous Reverse Leakage Current - MicroAmperes versus
Percent Of Rated Peak Reverse Voltage - Volts

Figure 3
Forward Derating Curve



Average Forward Rectified Current - Amperes versus
Case Temperature - °C

Figure 4
Maximum Non-Repetitive Forward Surge Current



Peak Forward Surge Current - Amperes versus
Number Of Cycles At 60Hz - Cycles