



Micro Commercial Components

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 20736 Marilla Street Chatsworth
 CA 91311
 Phone: (818) 701-4933
 Fax: (818) 701-4939

Features

- Glass passivated chip
- Super fast switching time for high efficiency
- Low reverse leakage current
- High surge capacity
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0

Maximum Ratings

- Operating Temperature: - 55°C to +155°C
- Storage Temperature: - 55°C to +155°C

| MCC Catalog Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|--------------------|----------------|--|---------------------|-----------------------------|
| MUR1505 | MUR1505 | 50V | 35V | 50V |
| MUR1510 | MUR1510 | 100V | 70V | 100V |
| MUR1520 | MUR1520 | 200V | 140V | 200V |
| MUR1540 | MUR1540 | 400V | 280V | 400V |
| MUR1560 | MUR1560 | 600V | 420V | 600V |

Electrical Characteristics @ 25°C Unless Otherwise Specified

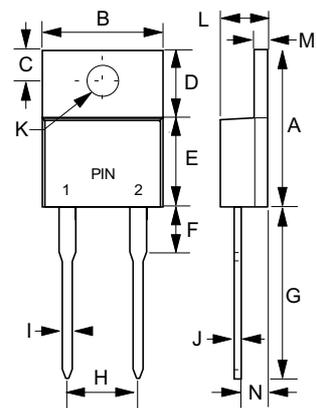
| | | | |
|--|-------------|----------------|---|
| Average Forward Current | $I_{F(AV)}$ | 15.0A | $T_C = 110^\circ\text{C}$ |
| Peak Forward Surge Current | I_{FSM} | 150A | 8.3ms, half sine |
| Maximum Forward Voltage Drop Per Element 1505-1520 1540-1560 | V_F | 1.25V 2.0 V | $I_{FM} = 15A$ $T_J = 25^\circ\text{C}$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I_R | 10uA 1000uA | $T_J = 25^\circ\text{C}$ $T_J = 100^\circ\text{C}$ |
| Maximum Reverse Recovery Time 1505-1520 1540-1560 | T_{rr} | 35ns 60ns | $I_F=0.5A, I_r=1.0A,$ $I_{rr}=0.25A$ |
| Typical Junction Capacitance | C_J | 160pF | Measured at 1.0MHz, $V_R=4.0V$ |

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

MUR1505 THRU MUR1560

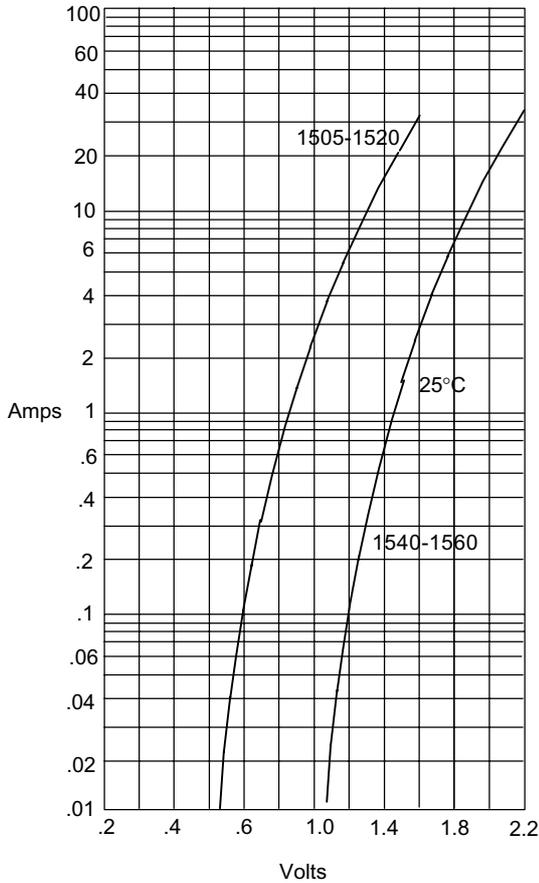
15 Amp Super Fast Glass Passivated Rectifier 50 to 600 Volts

TO-220AC



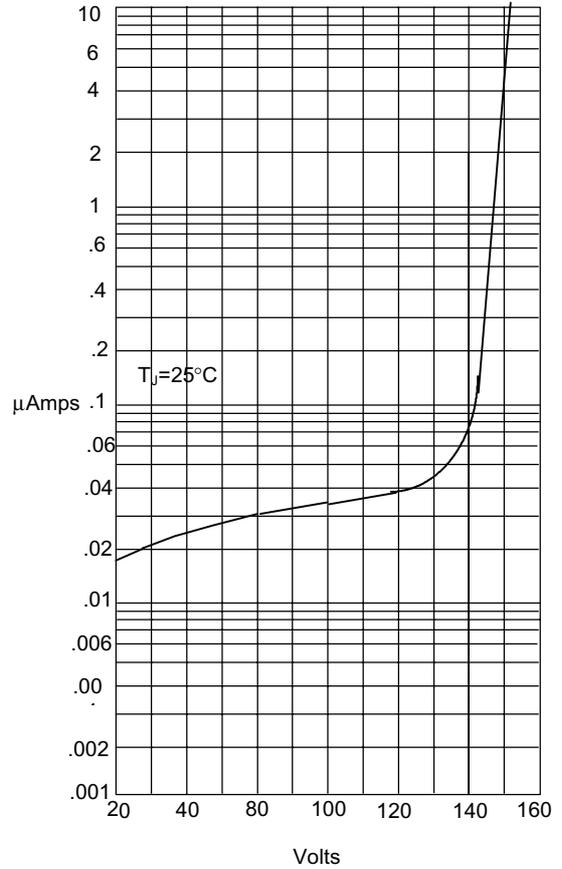
| DIM | DIMENSIONS | | | | NOTE |
|-----|------------|------|-------|-------|------|
| | INCHES | | MM | | |
| A | .560 | .625 | 14.22 | 15.88 | |
| B | .380 | .420 | 9.65 | 10.67 | |
| C | .100 | .135 | 2.54 | 3.43 | |
| D | .230 | .270 | 5.84 | 6.86 | |
| E | .380 | .420 | 9.65 | 10.67 | |
| F | ----- | .250 | ----- | 6.35 | |
| G | .500 | .580 | 12.70 | 14.73 | |
| H | .190 | .210 | 4.83 | 5.33 | |
| 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 | |

Figure 1
Typical Forward Characteristics



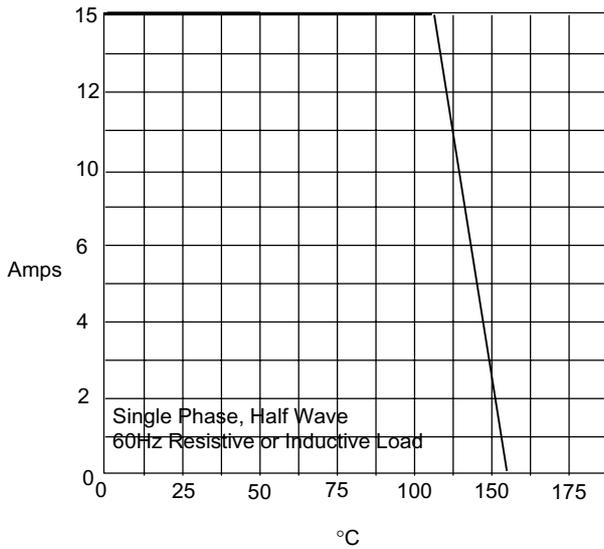
Instantaneous Forward Current - Amperes versus Instantaneous Forward Voltage - Volts

Figure 2
Typical Reverse Characteristics



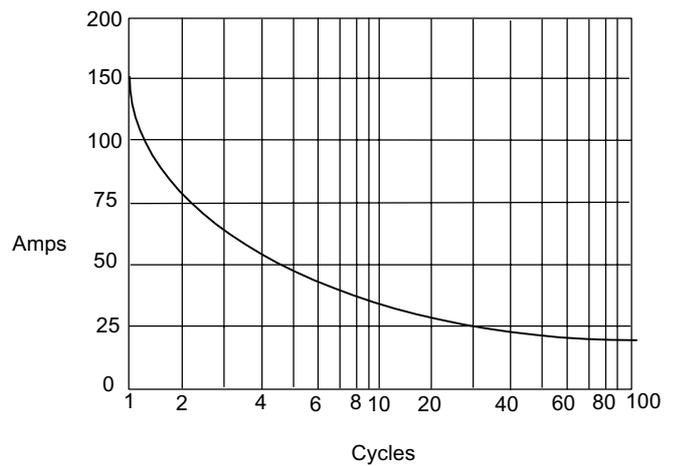
Instantaneous Reverse Leakage Current - MicroAmperes versus Percent Of Rated Peak Reverse Voltage - Volts

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



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