



Micro Commercial Components  
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## Features

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

## Maximum Ratings

- Operating 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 |
|--------------------------|----------------|----------------------------------------|---------------------|-----------------------------|
| MUR605CT                 | MUR605CT       | 50V                                    | 35V                 | 50V                         |
| MUR610CT                 | MUR610CT       | 100V                                   | 70V                 | 100V                        |
| MUR620CT                 | MUR620CT       | 200V                                   | 140V                | 200V                        |
| MUR640CT                 | MUR640CT       | 400V                                   | 280V                | 400V                        |
| MUR660CT                 | MUR660CT       | 600V                                   | 420V                | 600V                        |

## Electrical Characteristics @ 25°C Unless Otherwise Specified

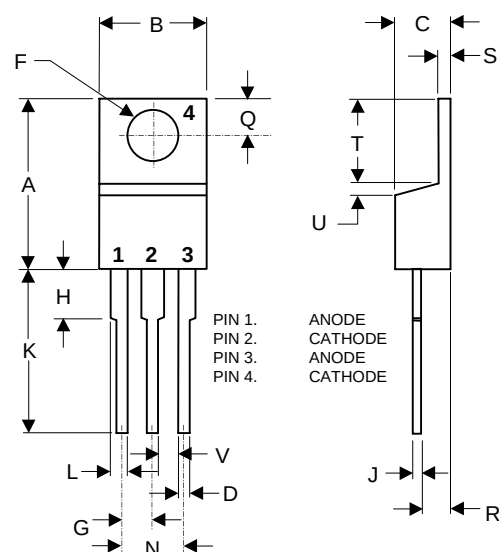
|                                                                         |             |                      |                                                                   |
|-------------------------------------------------------------------------|-------------|----------------------|-------------------------------------------------------------------|
| Average Forward Current                                                 | $I_{F(AV)}$ | 6 A                  | $T_C = 130^\circ\text{C}$                                         |
| Peak Forward Surge Current                                              | $I_{FSM}$   | 75A                  | 8.3ms, half sine                                                  |
| Maximum Forward Voltage Drop Per Element<br>605CT-620CT<br>640CT- 660CT | $V_F$       | .975V<br>1.25 V      | $I_{FM} = 3 \text{ A per element;}$<br>$T_A = 25^\circ\text{C}^*$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage                 | $I_R$       | 5.0uA<br>50uA        | $T_J = 25^\circ\text{C}$<br>$T_J = 100^\circ\text{C}$             |
| Maximum Reverse Recovery Time<br>605CT- 620<br>640CT<br>660CT           | $T_{rr}$    | 35ns<br>60ns<br>75ns | $I_F=8.0\text{A,}$<br>$I_{rr}=0.25\text{A}$                       |

\*Pulse test: Pulse width 300  $\mu\text{sec}$ , Duty cycle 1%

# MUR605CT THRU MUR660CT

## 6 Amp Super Fast Glass Passivated Rectifier 50 to 600 Volts

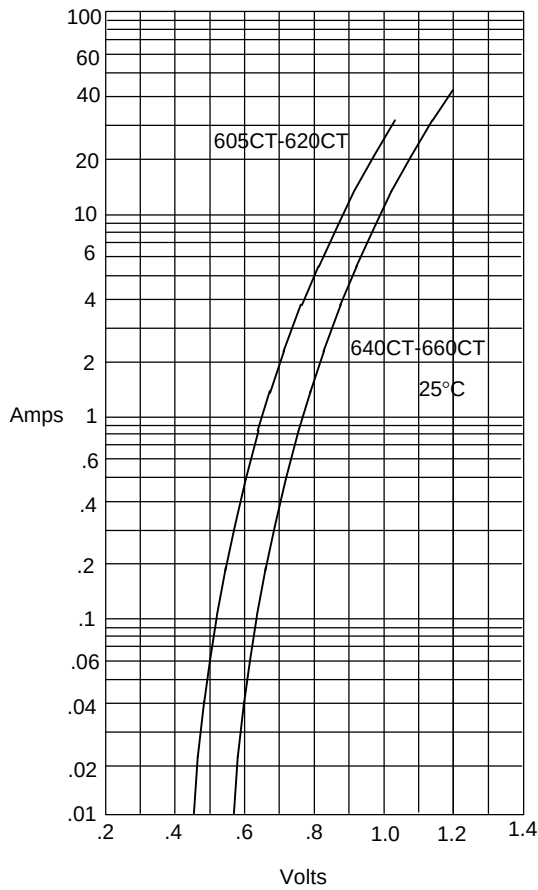
## TO-220AB



| DIM | INCHES |      | MM    |       | NOTE |
|-----|--------|------|-------|-------|------|
|     | MIN    | MAX  | MIN   | MAX   |      |
| A   | .570   | .620 | 14.48 | 15.75 |      |
| B   | .380   | .405 | 9.66  | 10.28 |      |
| C   | .160   | .190 | 4.06  | 4.82  |      |
| D   | .025   | .035 | 0.64  | 0.89  |      |
| E   | .142   | .147 | 3.61  | 3.73  |      |
| F   | .095   | .105 | 2.42  | 2.66  |      |
| G   | .110   | .155 | 2.80  | 3.93  |      |
| H   | .018   | .025 | 0.46  | 0.64  |      |
| J   | .500   | .562 | 12.70 | 14.27 |      |
| K   | .045   | .060 | 1.14  | 1.52  |      |
| L   | .100   | .120 | 2.54  | 3.04  |      |
| M   | .080   | .110 | 2.04  | 2.79  |      |
| N   | .045   | .055 | 1.14  | 1.39  |      |
| O   | .235   | .255 | 5.97  | 6.48  |      |
| P   | .045   | .050 | 1.15  | 1.27  |      |
| Q   | .045   | .050 | 1.15  | 1.27  |      |

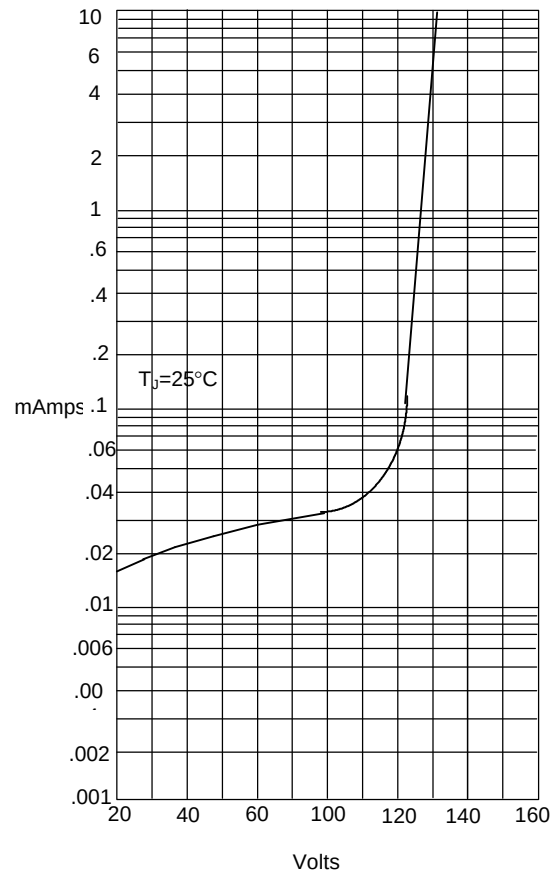
# MUR605CT thru MU660CT

Figure 1  
Typical Forward Characteristics



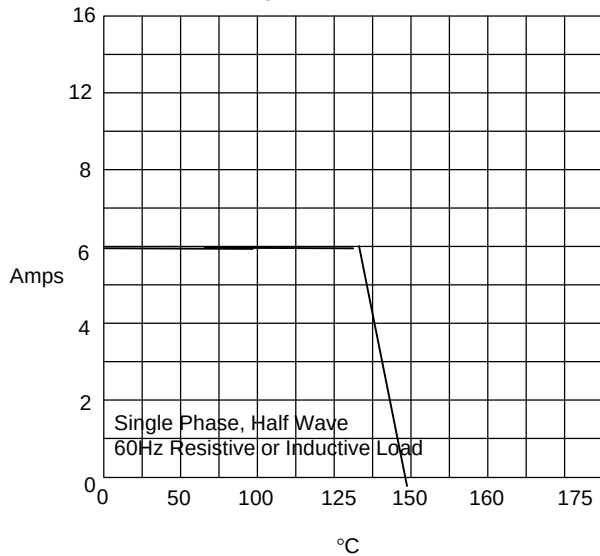
Instantaneous Forward Current - Amperes versus  
Instantaneous Forward Voltage - Volts

Figure 2  
Typical Reverse Characteristics



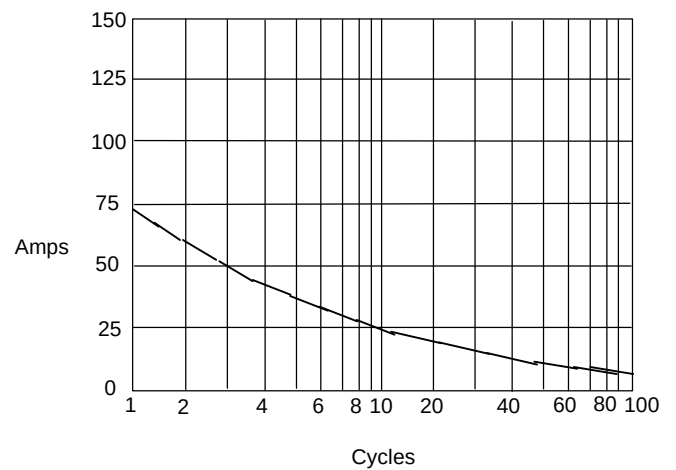
Instantaneous Reverse Leakage Current - MicroAmperes versus  
Percent Of Rated Peak Reverse Voltage - Volts

Figure 3  
Forward Derating Curve



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

Figure 4  
Maximum Non-Repetitive Forward Surge Current



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