



Micro Commercial Components

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

# MUR1605FCT THRU MUR1660FCT

## Features

- Low power loss, high efficiency
- Low forward voltage, high current capability
- High surge capacity
- Super fast recovery times, high voltage
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0

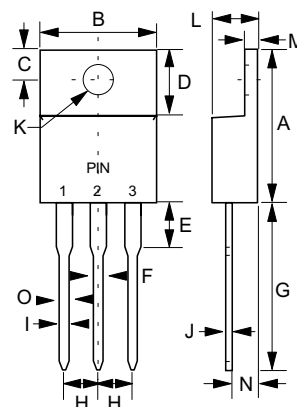
## Maximum Ratings

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

| MCC Catalog 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                        |

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

## ITO-220AB



## Electrical Characteristics @ 25°C Unless Otherwise Specified

|                                                                                        |             |                        |                                                       |
|----------------------------------------------------------------------------------------|-------------|------------------------|-------------------------------------------------------|
| Average Forward Current                                                                | $I_{F(AV)}$ | 16A                    | $T_C = 90^\circ\text{C}$                              |
| Peak Forward Surge Current                                                             | $I_{FSM}$   | 125A                   | 8.3ms, half sine                                      |
| Maximum Instantaneous Forward Voltage<br>1605FCT-1620FCT<br>1630FCT-1640FCT<br>1660FCT | $V_F$       | .95V<br>1.30V<br>1.70V | $T_J = 25^\circ\text{C}$<br>$I_{FM} = 8A;$            |
| Maximum DC Reverse Current At Rated DC Blocking Voltage                                | $I_R$       | 10uA<br>500uA          | $T_a = 25^\circ\text{C}$<br>$T_a = 150^\circ\text{C}$ |
| Maximum Reverse Recovery Time<br>1605FCT-1620FCT<br>1630FCT-1660FCT                    | $T_{rr}$    | 35ns<br>50ns           | $I_F=0.5A, I_R=1.0A,$<br>$I_{rr}=0.25A$               |

| DIM | INCHES |      | MM    |       | NOTE |
|-----|--------|------|-------|-------|------|
|     | MIN    | MAX  | MIN   | MAX   |      |
| A   | .583   | .606 | 14.80 | 15.40 |      |
| B   | ---    | .406 | ---   | 10.30 |      |
| C   | .100   | .112 | 2.55  | 2.85  |      |
| D   | .248   | .272 | 6.30  | 6.90  |      |
| E   | ---    | .161 | ---   | 4.10  |      |
| F   | ---    | .071 | ---   | 1.80  |      |
| G   | .512   | .543 | 13.00 | 13.80 |      |
| H   | .100   |      | 2.55  |       |      |
| I   | ---    | .035 | ---   | 0.90  |      |
| J   | ---    | .032 | ---   | 0.80  |      |
| K   | .118   | .134 | 3.00  | 3.40  | Ø    |
| L   | ---    | .189 | ---   | 4.80  |      |
| M   | ---    | .130 | ---   | 3.30  |      |
| N   | .098   | .114 | 2.50  | 2.90  |      |
| O   | ---    | .055 | ---   | 1.40  |      |

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# MUR1605FCT thru MUR1660FCT

Figure 1  
Typical Forward Characteristics

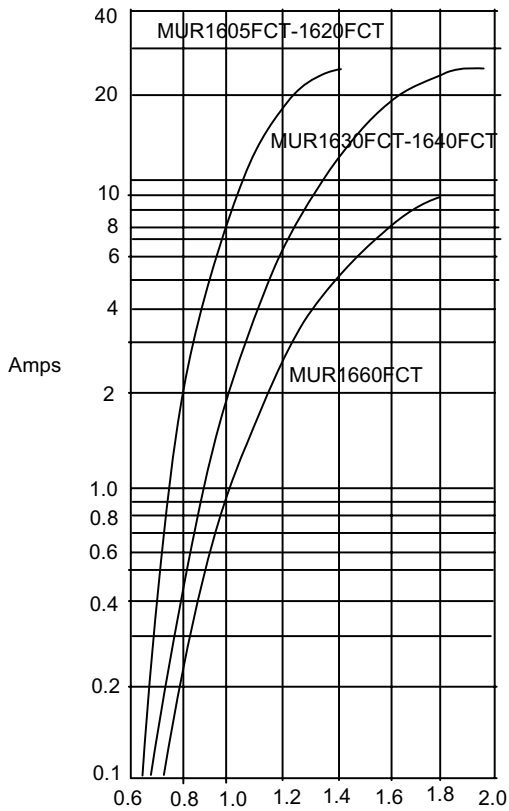


Figure 2  
Typical Reverse Characteristics

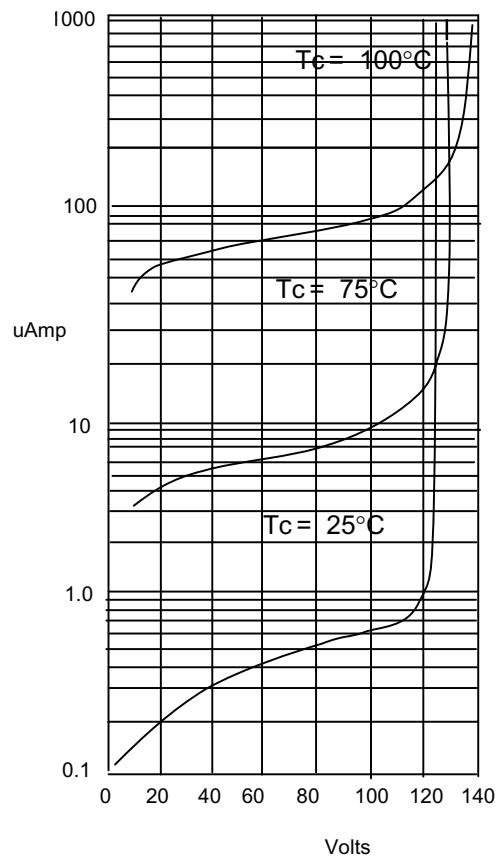
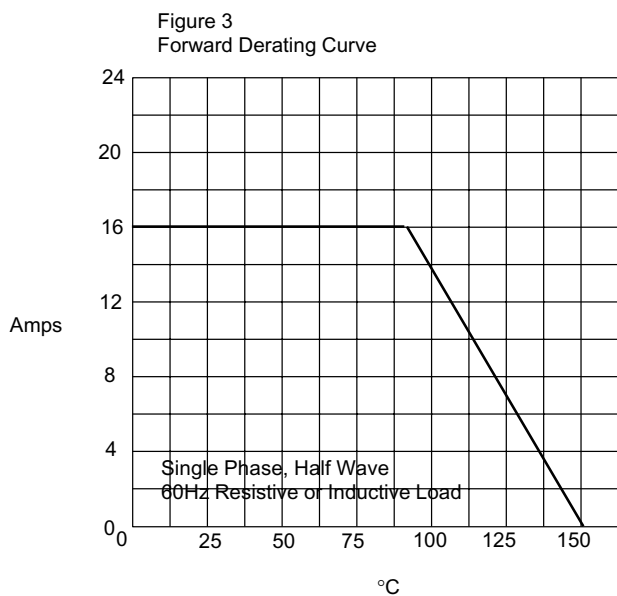
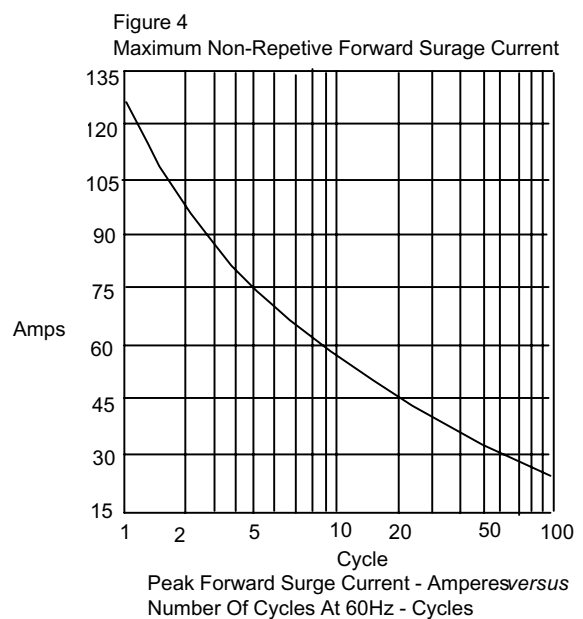


Figure 3  
Forward Derating Curve



Average Forward Rectified Current - Amperes versus Case Temperature -  $^\circ\text{C}$

Figure 4  
Maximum Non-Repetitive Forward Surge Current



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

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