KERSEMI®

# MUR1605FCT THRU MUR1660FCT

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

## 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

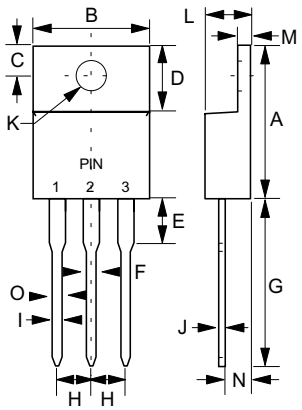
- Operating Junction Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C

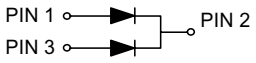
| MCC Catalog Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|---|---|---|---|---|
| MUR1605FCT | MUR1605FCT | 50V | 35V | 50V |
| MUR1610FCT | MUR1610FCT | 100V | 70V | 100V |
| MUR1615FCT | MUR1615FCT | 150V | 105V | 150V |
| MUR1620FCT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

## Electrical Characteristics @ 25°C Unless Otherwise Specified

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

## ITO-220AB

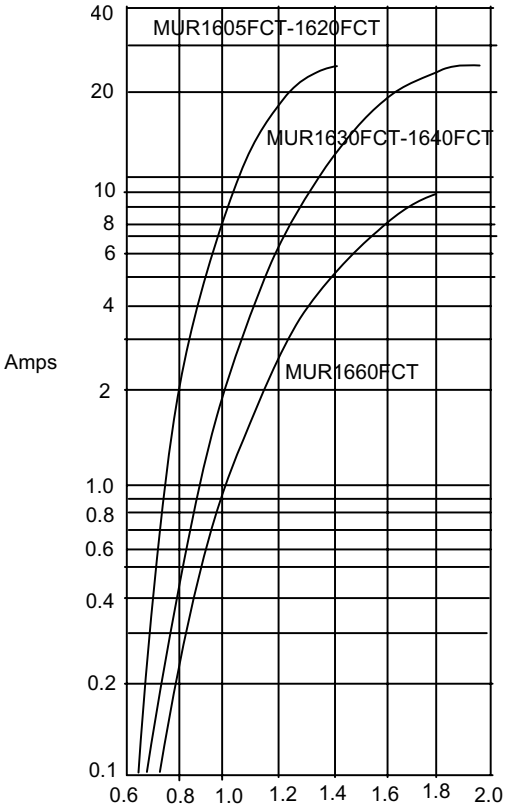



| DIMENSIONS | | | | | |
|---|---|---|---|---|---|
| | INCHES | | MM | | |
| DIM | MIN | MAX | MIN | MAX | NOTE |
| A | .583 | .606 | 14.80 | 15.40 | |
| B | --- | .406 | --- | 10.30 | |
| C | .100 | .112 | 2.55 | 2.85 | |
| D | .248 | .272 | 6.30 | 6.90 | |
| E | --- | .161 | --- | 4.10 | |
| F | --- | .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 | ∅ |
| L | --- | .189 | --- | 4.80 | |
| M | --- | .130 | --- | 3.30 | |
| N | .098 | .114 | 2.50 | 2.90 | |
| O | --- | .055 | --- | 1.40 | |

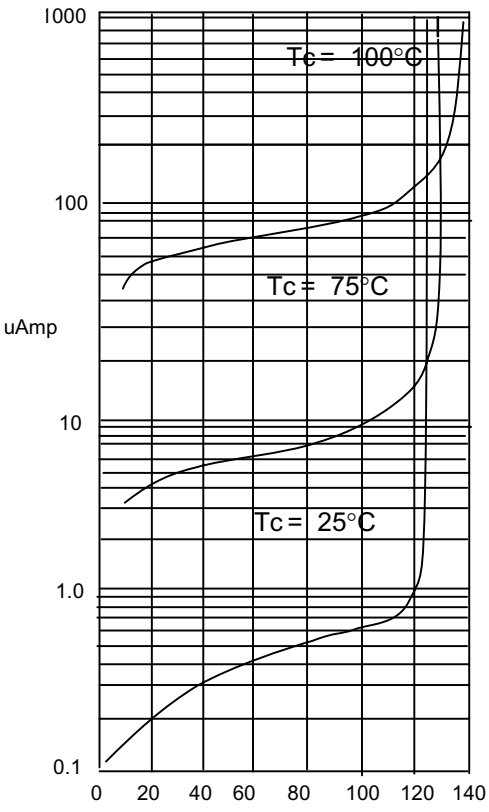
# MUR1605FCT thru MUR1660FCT

Figure 1
Typical Forward Characteristics



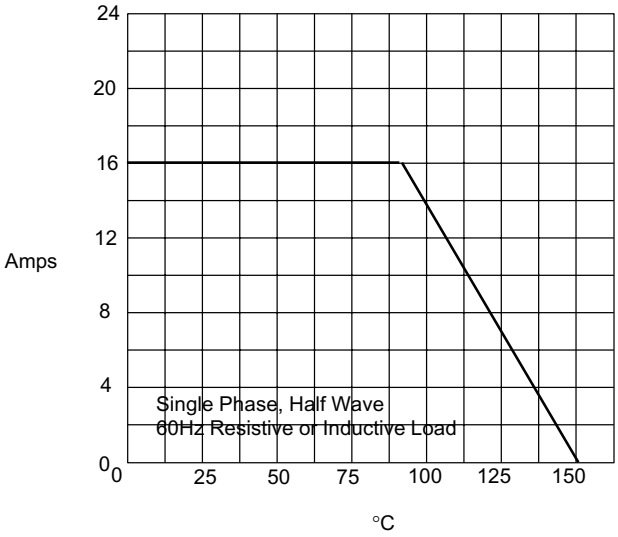

Instantaneous Forward Current - Amperes *versus*
Instantaneous Forward Voltage - Volts

Figure 2
Typical Reverse Characteristics



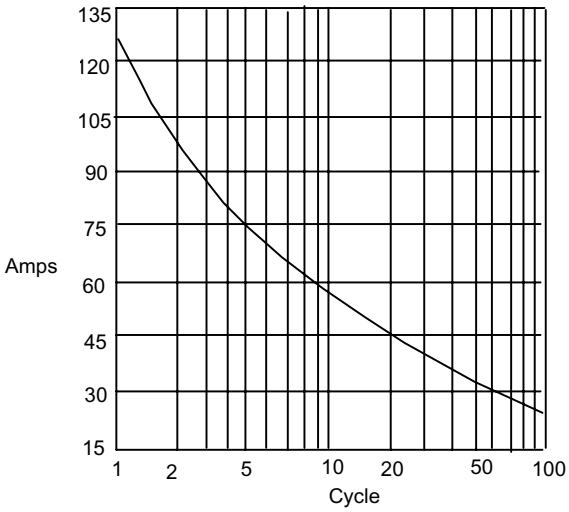

Instantaneous Reverse Leakage Current - MicroAmperes *versus*
Percent Of Rated Peak Reverse Voltage - Volts

Figure 3
Forward Derating Curve




AverageAverage Forward Rectified Current - Amperes *versus*
Case Temperature -°C

Figure 4
Maximum Non-Repetive Forward Surage Current




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