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# MUR2010CT THRU MUR2020CT

## 20 Amp Super Fast Glass Passivated Rectifier 100 to 200 Volts

## Features

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

## Maximum Ratings

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

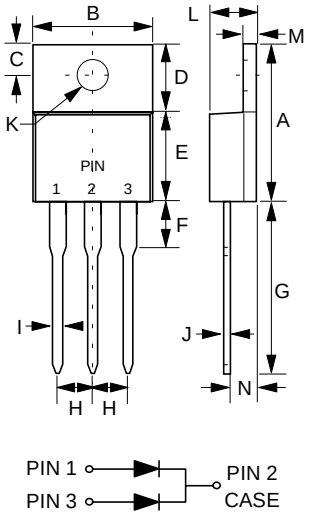
| Catalog Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|---|---|---|---|---|
| MUR2010CT | MUR2010CT | 100V | 70V | 100V |
| MUR2020CT | MUR2020CT | 200V | 140V | 200V |

## Electrical Characteristics @ 25°C Unless Otherwise Specified

| | | | |
|---|---|---|---|
| Average Forward Current | $I_{F(AV)}$ | 20 A | $T_C$ = 95°C |
| Peak Forward Surge Current | $I_{FSM}$ | 125A | 8.3ms, half sine |
| Maximum Forward Voltage Drop Per Element | $V_F$ | 1.1V<br>1.0V | $I_{FM}$ = 10 A<br>$T_J$ = 25°C<br>$T_J$ = 125°C |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | $I_R$ | 5.0uA<br>100uA | $T_J$ = 25°C<br>$T_J$ = 100°C |
| Maximum Reverse Recovery Time | $T_{rr}$ | 35ns | $I_F$=0.5A, $I_R$=1.0A, $I_{rr}$=0.25A |
| Typical Junction Capacitance | $C_J$ | 100pF | Measured at 1.0MHz, $V_R$=4.0V |

*Pulse test: Pulse width 300 μsec, Duty cycle 2%

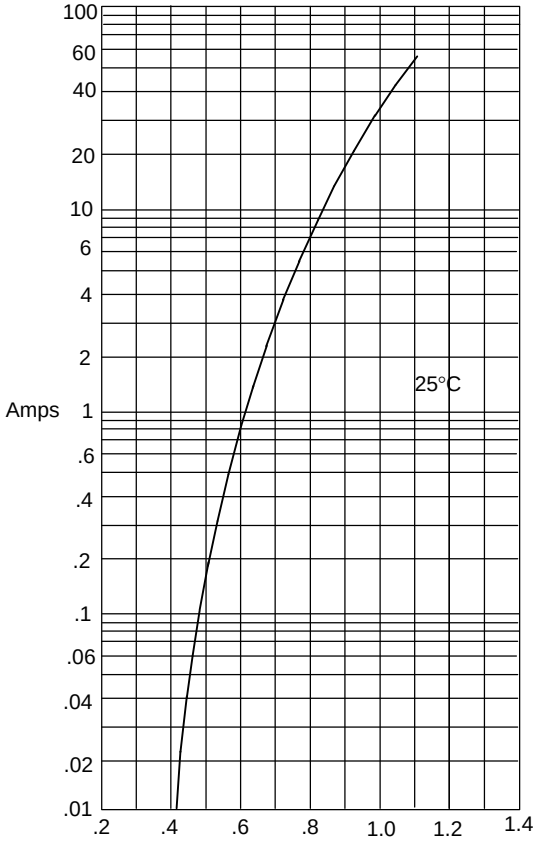
## TO-220AB




| DIMENSIONS | | | | | |
|---|---|---|---|---|---|
| | INCHES | | MM | | |
| DIM | MIN | MAX | MIN | MAX | NOTE |
| 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 | |

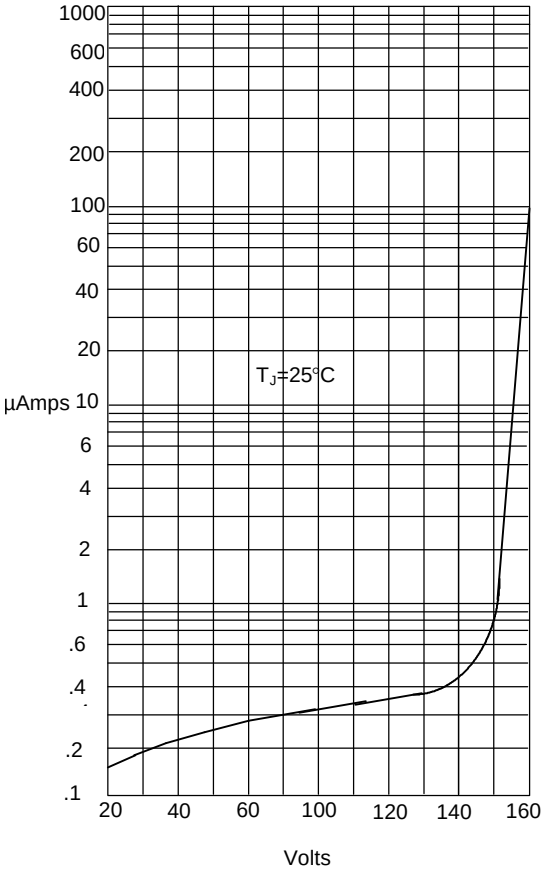
# MUR2010CT thru MUR2020CT

Figure 1
Typical Forward Characteristics



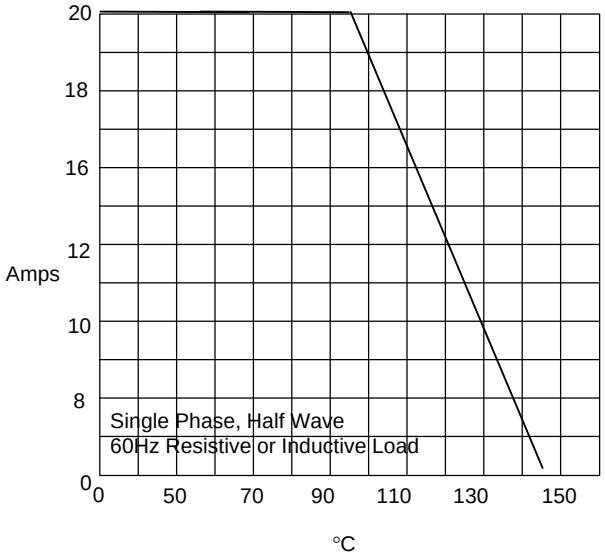

Instantaneous Forward Current - Amperes *versus*
Instantaneous Forward Voltage - Volts

Figure 2
Typical Reverse Characteristics



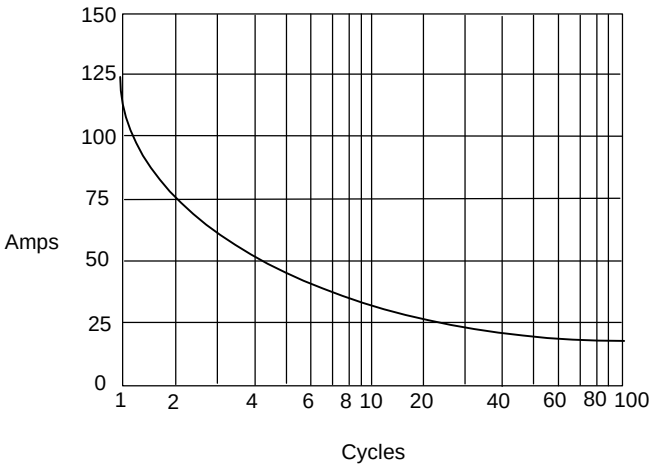

Instantaneous Reverse Leakage Current - MicroAmperes *versus*
Percent Of Rated Peak Reverse Voltage - Volts

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