



Shanghai Lunsure Electronic  
Technology Co.,Ltd  
Tel:0086-21-37185008  
Fax:0086-21-57152769

# MUR1010CT THRU MUR1020CT

## Features

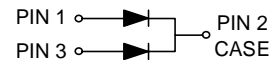
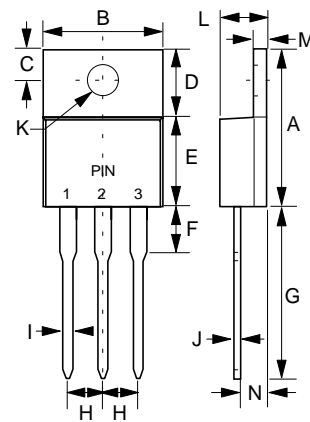
## 10 Amp Super Fast Glass Passivated Rectifier

## Maximum Ratings

- Operating Junction 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 |
|----------------|----------------|--|---------------------|-----------------------------|
| MUR1010CT      | MUR1010CT      | 100V                                   | 70V                 | 100V                        |
| MUR1020CT      | MUR1020CT      | 200V                                   | 140V                | 200V                        |

## TO-220AB



## Electrical Characteristics @ 25°C Unless Otherwise Specified

|   |             |                  |   |
|---|-------------|------------------|---|
| Average Forward Current                                 | $I_{F(AV)}$ | 10 A             | $T_C = 125^\circ\text{C}$   |
| Peak Forward Surge Current                              | $I_{FSM}$   | 55 A             | 8.3ms, half sine  |
| Maximum Forward Voltage Drop Per Element                | $V_F$       | 0.975V<br>0.925V | $T_J = 25^\circ\text{C}$ $I_F = 5\text{A}$<br>$T_J = 125^\circ\text{C}$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | $I_R$       | 5uA<br>500uA     | $T_J = 25^\circ\text{C}$<br>$T_J = 100^\circ\text{C}$                   |
| Maximum Reverse Recovery Time                           | $T_{rr}$    | 35ns             | $I_F = 0.5\text{A}$ , $I_r = 1.0\text{A}$ ,<br>$I_{rr} = 0.25\text{A}$  |
| Typical Junction Capacitance                            | $C_J$       | 80pF             | Measured at<br>1.0MHz, $V_R = 4.0\text{V}$                              |

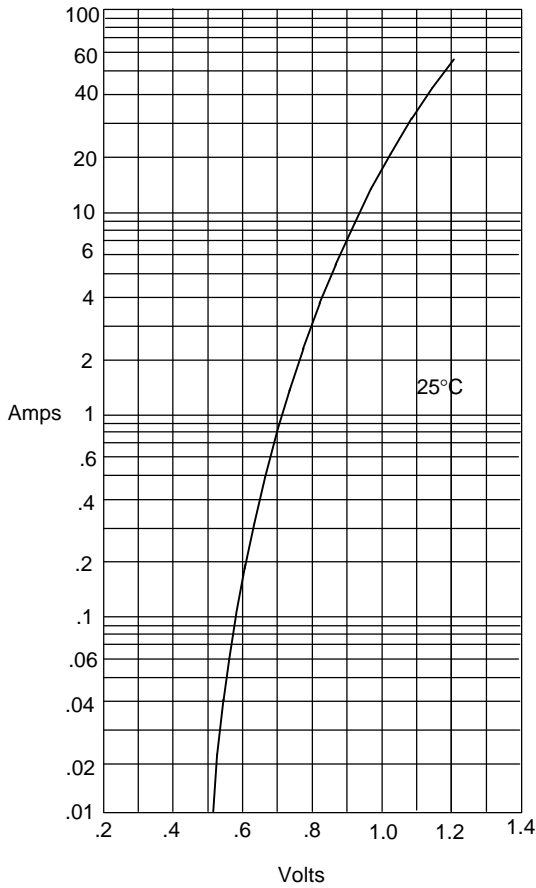
\*Pulse Test: Pulse Width 300μsec, Duty Cycle 2%

| 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   | .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  |      |



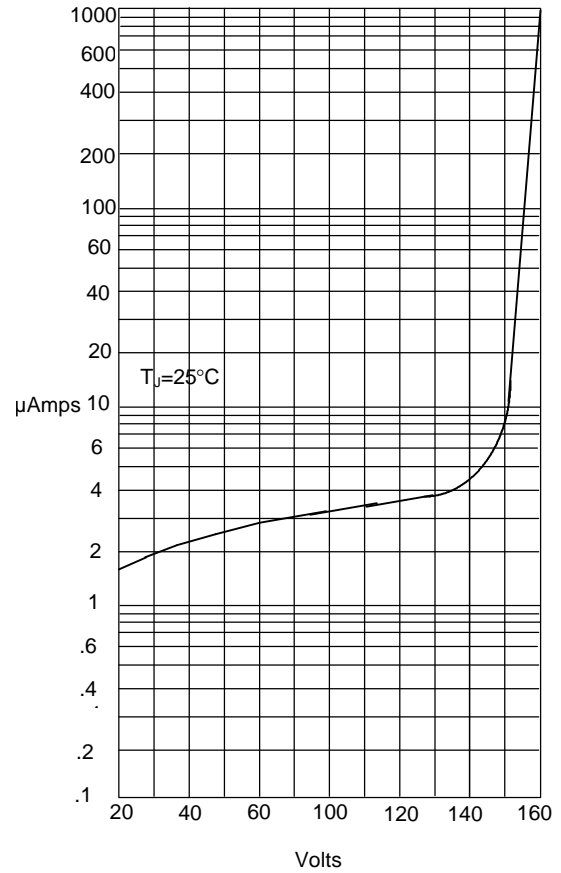
# MUR1010CT thru MUR1020CT

Figure 1  
Typical Forward Characteristics



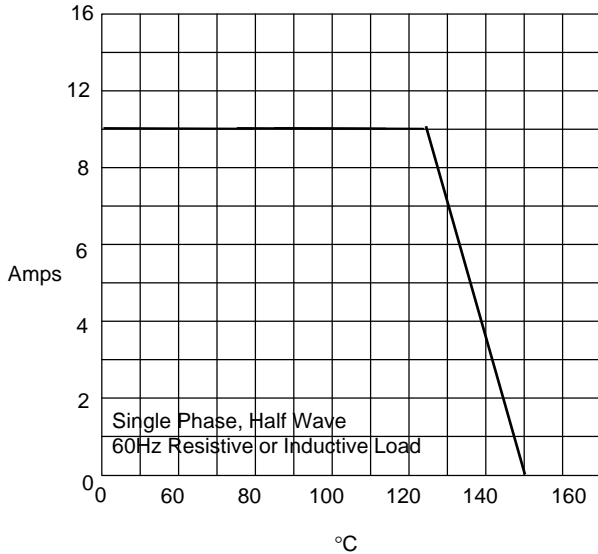
Instantaneous Forward Current - Amperes *versus*  
Instantaneous Forward Voltage - Volts

Figure 2  
Typical Reverse Characteristics



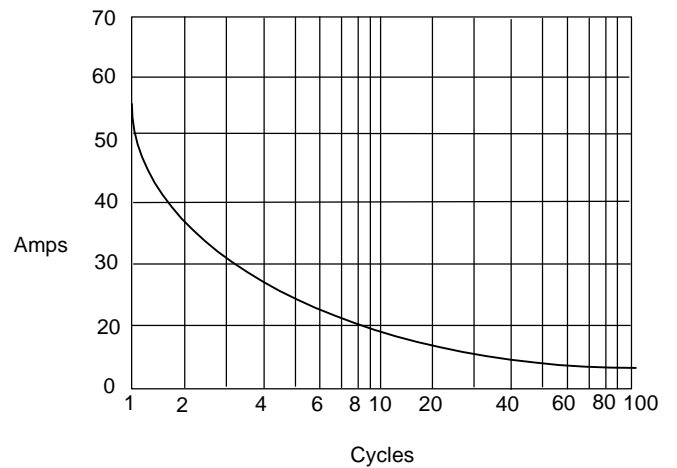
Instantaneous Reverse Leakage Current - MicroAmperes *versus*  
Percent Of Rated Peak Reverse Voltage - Volts

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