



Pb Free Plating Product

MUR1220CT thru MUR1260CT

12.0 Ampere Heatsink Dual Common Cathode Fast Recovery Rectifiers

**Feature**

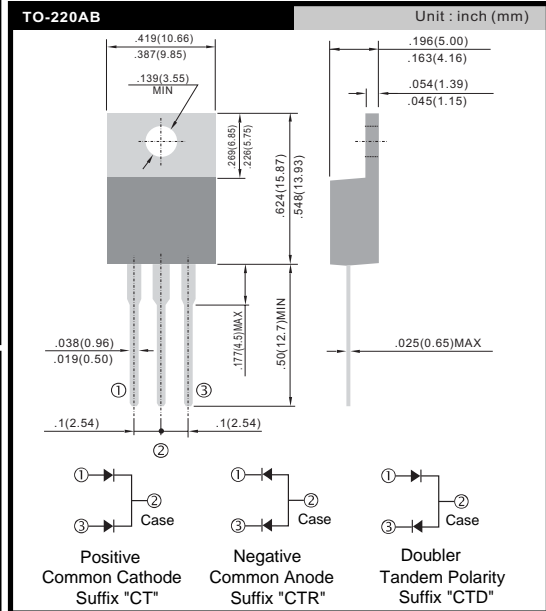
- \* Fast switching for high efficiency
- \* Low forward voltage drop
- \* High current capability
- \* Low reverse leakage current
- \* High surge current capability

**Application**

- \* Automotive Environment(Inverters/Converters)
- \* Plating Power Supply,Adaptor,SMPS and UPS
- \* Car Audio Amplifiers and Sound Device System

**Mechanical Data**

- \* Case:TO-220AB Heatsink
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Terminals: Solderable per MIL-STD-202 method 208
- \* Polarity: As marked on diode body
- \* Mounting position: Any
- \* Weight: 2.2 gram approximately



**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Rating at 25°C ambient temperature unless otherwise specified.  
 Single phase, half wave, 60Hz, resistive or inductive load.  
 For capacitive load, derate current by 20%.

|   | SYMBOL   | MUR1220CT<br>MUR1220CTR<br>MUR1220CTD | MUR1240CT<br>MUR1240CTR<br>MUR1240CTD | MUR1260CT<br>MUR1260CTR<br>MUR1260CTD | UNIT     |
|---|----------|---------------------------------------|---------------------------------------|---------------------------------------|----------|
| Maximum Recurrent Peak Reverse Voltage  | VRRM     | 200                                   | 400                                   | 600                                   | V        |
| Maximum RMS Voltage   | VRMS     | 140                                   | 280                                   | 420                                   | V        |
| Maximum DC Blocking Voltage   | VDC      | 200                                   | 400                                   | 600                                   | V        |
| Maximum Average Forward Rectified Current Tc=100°C  | IF(AV)   | 12.0                                  |                                       |                                       | A        |
| Peak Forward Surge Current, 8.3ms single Half sine-wave superimposed on rated load (JEDEC method) | IFSM     | 100                                   |                                       |                                       | A        |
| Maximum Instantaneous Forward Voltage @ 6.0 A   | VF       | 0.98                                  | 1.3                                   | 1.7                                   | V        |
| Maximum DC Reverse Current @Tj=25°C At Rated DC Blocking Voltage @Tj=125°C                        | IR       | 10.0<br>250                           |                                       |                                       | uA<br>uA |
| Maximum Reverse Recovery Time (Note 1)  | Trr      | 35                                    |                                       |                                       | nS       |
| Typical junction Capacitance (Note 2)   | CJ       | 65                                    |                                       |                                       | pF       |
| Typical Thermal Resistance (Note 3)   | RθJC     | 2.2                                   |                                       |                                       | °CW      |
| Operating Junction and Storage Temperature Range  | TJ, TSTG | -55 to +150                           |                                       |                                       | °C       |

NOTES : (1) Reverse recovery test conditions IF = 0.5A, IR = 1.0A, Irr = 0.25A.  
 (2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts DC.  
 (3) Thermal Resistance junction to case.

FIG.1 - FORWARD CURRENT DERATING CURVE

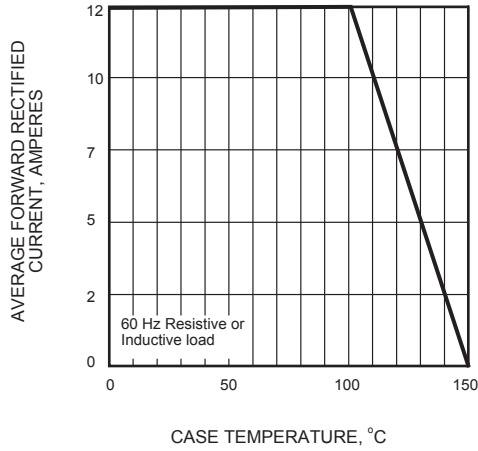


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

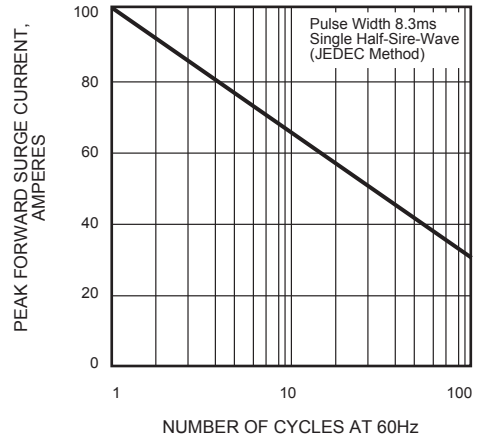


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

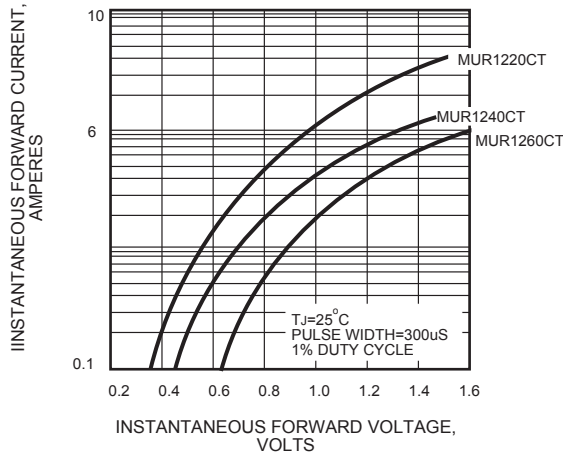


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

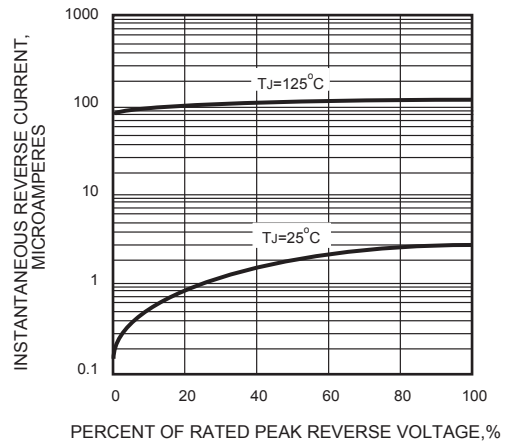


FIG.5 - TYPICAL JUNCTION CAPACITANCE

