

Pb Free Plating Product

MUR1620D/MUR1640D/MUR1660D



16 Ampere Heatsink Doubler Polarity Fast Recovery Half Bridge Rectifiers

**Features**

- ★ Latest GPP technology with super fast recovery time
- ★ Low forward voltage drop
- ★ High current capability
- ★ Low reverse leakage current
- ★ High surge current capability

**Application**

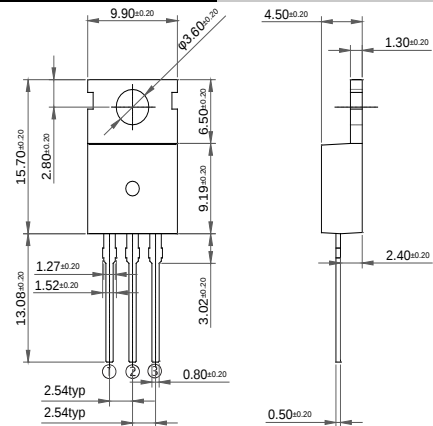
- ★ Automotive Inverters and Solar Inverters
- ★ Plating Power Supply, SMPS, Motor Control and UPS
- ★ Car Audio Amplifiers and Sound Device Systems

**Mechanical Data**

- ★ Case: Heatsink TO-220AB/TO-220CE
- ★ 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

**TO-220AB**

Unit:mm



①  
②  
③

Case

Doubler  
Doubler Polarity  
Suffix "D"

**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   | MUR1620D     | MUR1640D | MUR1660D | 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)   | 16.0         |          |          | A        |
| Peak Forward Surge Current, 8.3ms single Half sine-wave superimposed on rated load (JEDEC method) | IFSM     | 175          | 150      |          | A        |
| Maximum Instantaneous Forward Voltage @ 8.0 A                                                     | VF       | 0.98         | 1.3      | 1.7      | V        |
| Maximum DC Reverse Current @Tj=25°C<br>At Rated DC Blocking Voltage @Tj=125°C                     | IR       | 5.0<br>100   |          |          | uA<br>uA |
| Maximum Reverse Recovery Time (Note 1)                                                            | Trr      | 35           |          |          | nS       |
| Typical junction Capacitance (Note 2)                                                             | CJ       | 90           |          |          | pF       |
| Typical Thermal Resistance (Note 3)                                                               | RθJC     | 2.2          |          |          | °C/W     |
| 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

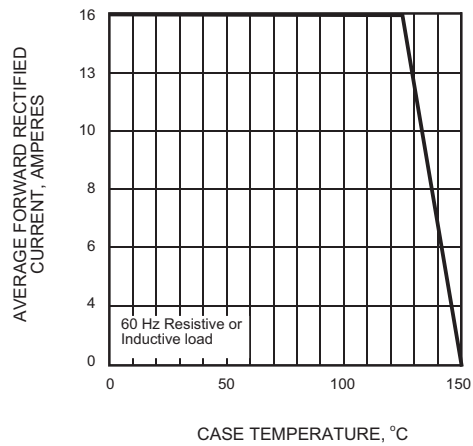


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

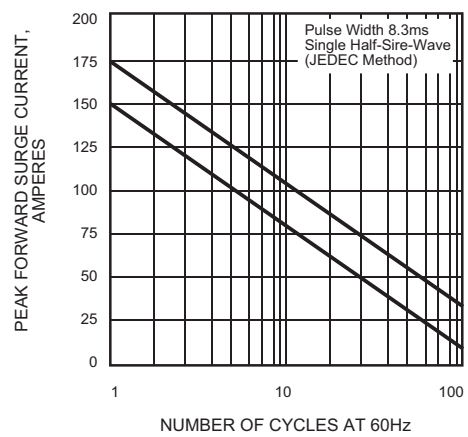


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

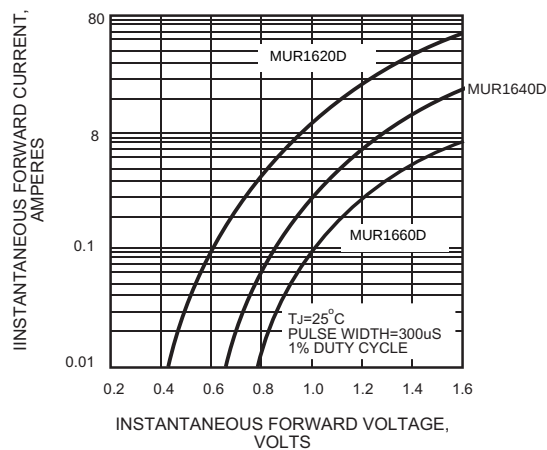


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

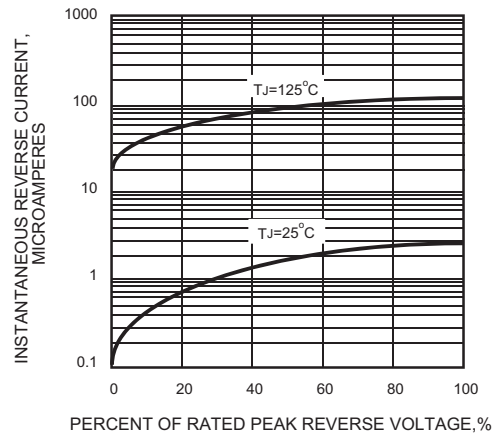


FIG.5 - TYPICAL JUNCTION CAPACITANCE

