

Pb Free Plating Product

MUR2020GD/MUR2040GD/MUR2060GD



20.0 Ampere Heatsink Dual Tandem Polarity Ultra Fast Recovery Rectifiers

**Features**

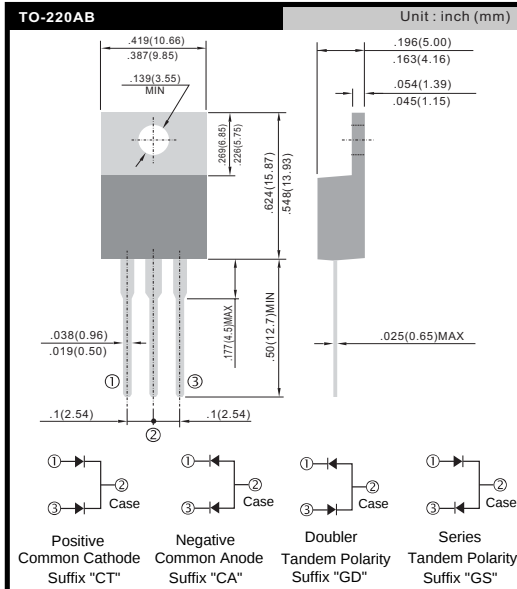
- ★ Fast switching for high efficiency
- ★ Low forward voltage drop
- ★ High current capability
- ★ Low reverse leakage current
- ★ High surge current capability

**Application**

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

**Mechanical Data**

- ★ Case: Heatsink TO-220AB open metal package
- ★ 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   | MUR2020GD    | MUR2040GD | MUR2060GD | 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=125℃ (Total Device 2x10A=20A)                        | IF(AV)   | 20.0         |           |           | A        |
| Peak Forward Surge Current, 8.3ms single Half sine-wave superimposed on rated load (JEDEC method) | IFSM     | 200          |           |           | A        |
| Maximum Instantaneous Forward Voltage @ 10.0 A (Per Diode/Per Leg)                                | VF       | 0.98         | 1.3       | 1.7       | V        |
| Maximum DC Reverse Current @TJ=25℃<br>At Rated DC Blocking Voltage @TJ=125℃                       | IR       | 5.0<br>100   |           |           | μA<br>μA |
| Maximum Reverse Recovery Time (Note 1)                                                            | Trr      | 35           |           |           | nS       |
| Typical junction Capacitance (Note 2)                                                             | CJ       | 120          | 70        |           | pF       |
| Typical Thermal Resistance (Note 3)                                                               | RθJC     | 2.0          |           |           | ℃/W      |
| Operating Junction and Storage Temperature Range                                                  | TJ, TSTG | -55 to + 150 |           |           | ℃        |

NOTES : (1) Reverse recovery test conditions I<sub>F</sub> = 0.5A, R = 1.0A, I<sub>rr</sub> = 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

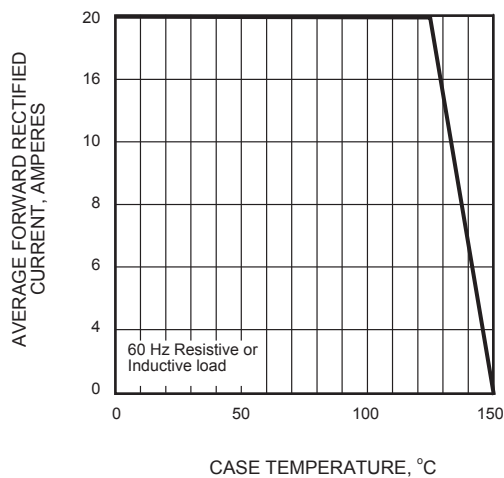


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

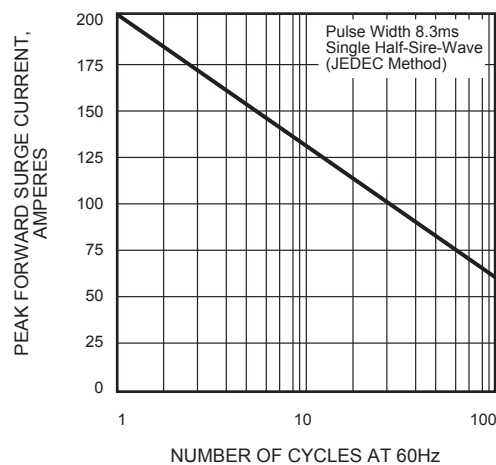


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

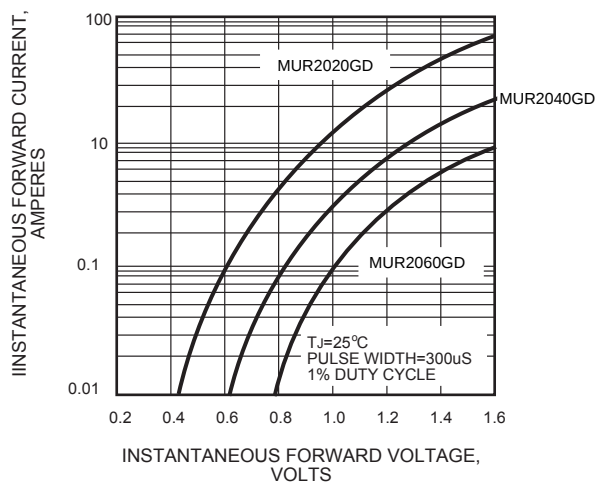


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

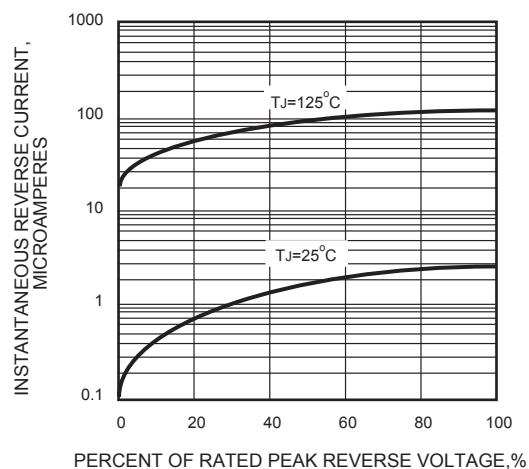


FIG.5 - TYPICAL JUNCTION CAPACITANCE

