

# Glass Passivated Superfast Rectifier

**multicomp**PRO

**RoHS  
Compliant**



## Features:

- Glass passivated die construction
- Superfast 35nS and 50nS recovery time
- Low forward voltage drop
- Low reverse leakage current
- Soft recovery characteristics
- Epoxy meets UL 94V-0 classification
- Ideally suited for use in high frequency SMPS, Inverters and as free wheeling diodes

## Mechanical Data:

|                   |                                                                     |
|-------------------|---------------------------------------------------------------------|
| Case              | : TO-220A, Molded Plastic                                           |
| Terminals         | : Pure tin plated, lead free solderable Per MIL-STD-202, method 208 |
| Polarity          | : As marked on the body                                             |
| Weight            | : 1.9 grams(approx)                                                 |
| Mounting Position | : Any                                                               |
| Mounting Torque   | : 0.6 N.m Max.                                                      |
| Reverse Voltage   | : 400 to 600 Volts                                                  |
| Forward Current   | : 16 Amperes                                                        |

## 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%.

| Characteristics                                                                                         | Symbol             | MUR1640     | MUR1660 | Unit |
|---------------------------------------------------------------------------------------------------------|--------------------|-------------|---------|------|
| Max. Recurrent Peak Reverse Voltage                                                                     | V <sub>RRM</sub>   | 400         | 600     | V    |
| Max. RMS Voltage                                                                                        | V <sub>RMS</sub>   | 280         | 420     |      |
| Max. DC Blocking Voltage                                                                                | V <sub>DC</sub>    | 400         | 600     |      |
| Max. Average Forward Rectified Current                                                                  | I <sub>F(AV)</sub> | 16          |         | A    |
| Peak Forward Surge Current<br>8.3ms Single Half Sine-Wave<br>Super Imposed on Rated Load (JEDEC Method) | I <sub>FSM</sub>   | 250         |         |      |
| Max. Forward Voltage at 16A per leg                                                                     | V <sub>F</sub>     | 1.3         | 1.5     | V    |
| Max. DC Reverse Current at T <sub>J</sub> = 25°C<br>Rated DC Blocking Voltage at T <sub>J</sub> = 125°C | I <sub>R</sub>     | 10<br>500   |         | mA   |
| Max. Reverse Recovery Time (Note 1)                                                                     | T <sub>RR</sub>    | 50          |         | nS   |
| Typical Thermal Resistance, Junction to Ambient                                                         | R <sub>θJA</sub>   | 73          |         | °C/W |
| Typical Thermal Resistance, Junction to Case                                                            | R <sub>θJC</sub>   | 1.2         |         |      |
| Typical Junction Capacitance (Note 2)                                                                   | C <sub>J</sub>     | 145         |         | pF   |
| Operating Temperature Range                                                                             | T <sub>J</sub>     | -65 to +175 |         | °C   |
| Storage Temperature Range                                                                               | T <sub>STG</sub>   |             |         |      |

## Notes:

1. Measured with  $I_F = 0.5A$ ,  $I_R = 1.0A$ ,  $I_{RR} = 0.25A$
2. Measured at 1.0 MHZ and applied reverse voltage of 4.0V D.C.
3. The typical data above is for reference only

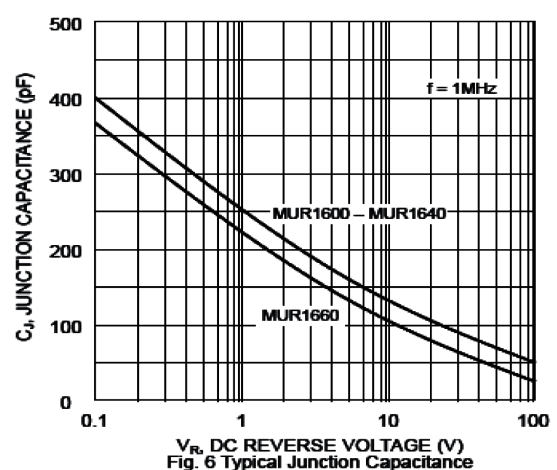
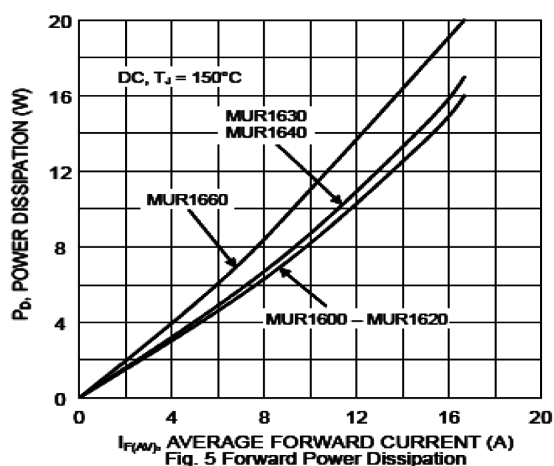
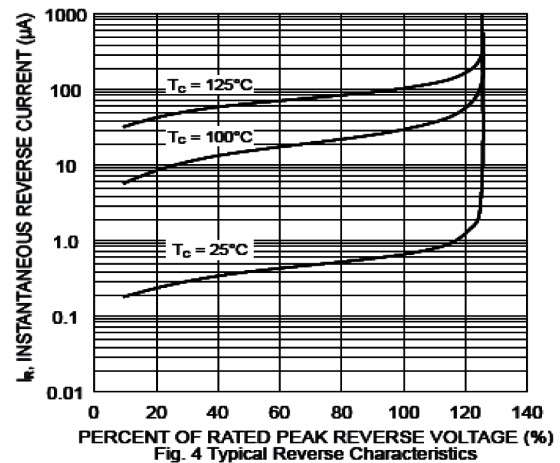
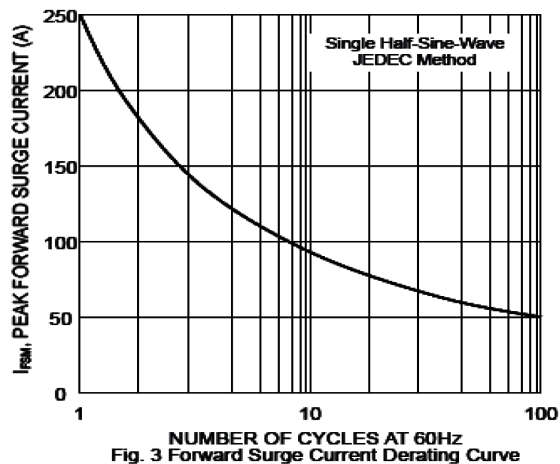
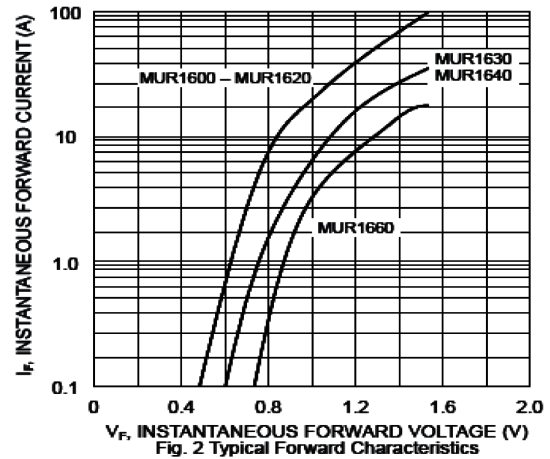
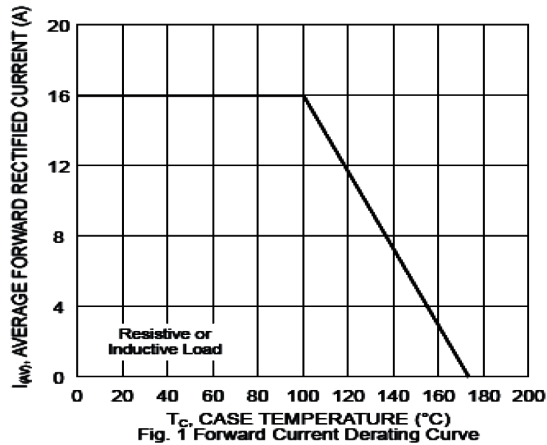
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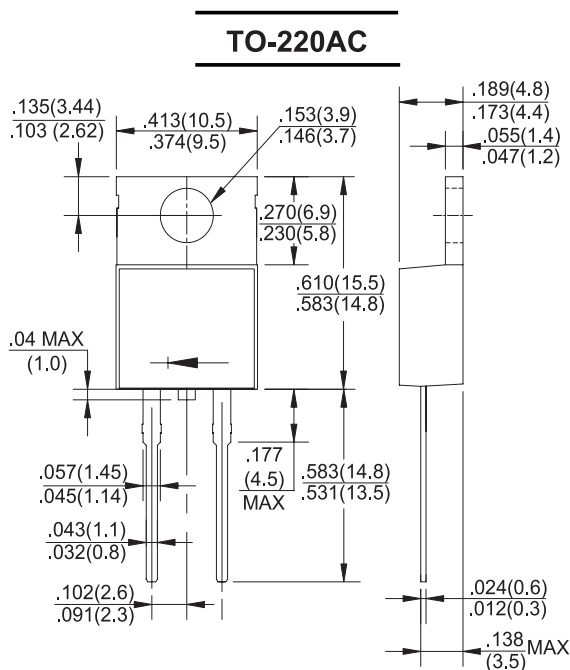
## Ratings and Characteristic Curves



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## Dimensions:



Dimensions : Inches (Millimetres)

## Part Number Table

| Description                           | Part Number |
|---------------------------------------|-------------|
| Glass Passivated Superfast Rectifiers | MUR1640     |
|                                       | MUR1660     |

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