

# MUR520 THRU MUR560

## 5.0 AMP SURFACE MOUNT SUPER FAST RECTIFIERS

### FEATURES

- \* Ideal for surface mount applications
- \* Easy pick and place
- \* Built-in strain relief
- \* Fast switching speed

### MECHANICAL DATA

- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Lead: Lead solderable per MIL-STD-202, method 208 guaranteed
- \* Polarity: As Marked
- \* Mounting position: Any
- \* Weight: 2.24 grams

### VOLTAGE RANGE

200 to 600 Volts

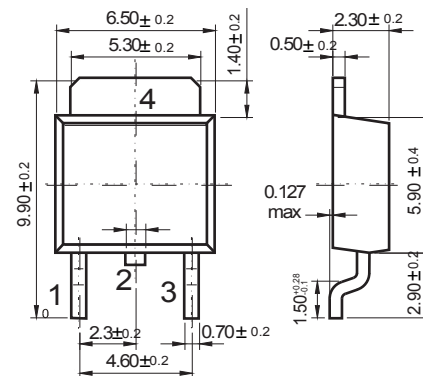
### CURRENT

5.0 Ampere



TO-252

Unit: mm



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

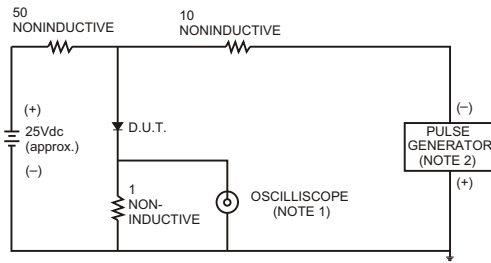
| TYPE NUMBER                                                                                           | MUR520     | MUR540 | MUR560 | UNITS |
|-------------------------------------------------------------------------------------------------------|------------|--------|--------|-------|
| Maximum Recurrent Peak Reverse Voltage                                                                | 200        | 400    | 600    | V     |
| Maximum RMS Voltage                                                                                   | 140        | 280    | 420    | V     |
| Maximum DC Blocking Voltage                                                                           | 200        | 400    | 600    | V     |
| Maximum Average Forward Rectified Current<br>at T <sub>L</sub> =100°C                                 | 5.0        |        |        | A     |
| Peak Forward Surge Current, 8.3 ms single half sine-wave<br>superimposed on rated load (JEDEC method) | 120        |        |        | A     |
| Maximum Instantaneous Forward Voltage at 5.0A                                                         | 1.0        | 1.25   | 1.7    | V     |
| Maximum DC Reverse Current<br>Ta=25°C                                                                 | 5.0        |        |        | μA    |
| at Rated DC Blocking Voltage<br>Ta=100°C                                                              | 150        |        |        | μA    |
| Maximum Reverse Recovery Time (Note 1)                                                                | 35         |        |        | nS    |
| Typical Junction Capacitance (Note 2)                                                                 | 50         |        |        | pF    |
| Operating and Storage Temperature Range T <sub>J</sub> , T <sub>STG</sub>                             | -65 — +150 |        |        | °C    |

#### NOTES:

1. Reverse Recovery Time test condition: IF=0.5A, IR=1.0A, IRR=0.25A
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

## RATING AND CHARACTERISTIC CURVES (MUR520 THRU MUR560)

FIG.1- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm.22pF.  
2. Rise Time= 10ns max., Source Impedance= 50 ohms.

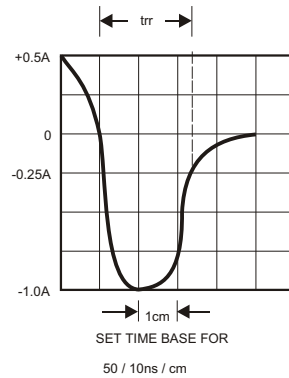


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

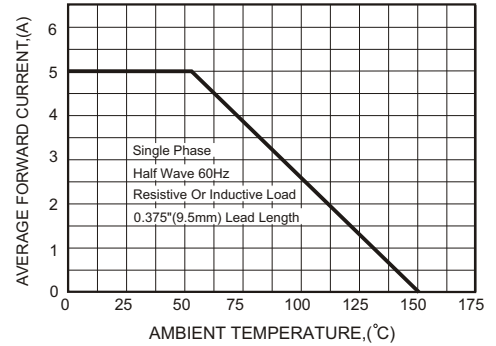


FIG.3-TYPICAL FORWARD CHARACTERISTICS

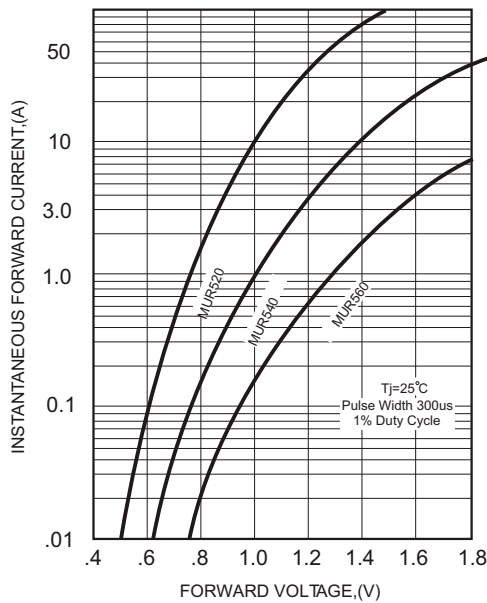


FIG.4-TYPICAL REVERSE CHARACTERISTICS

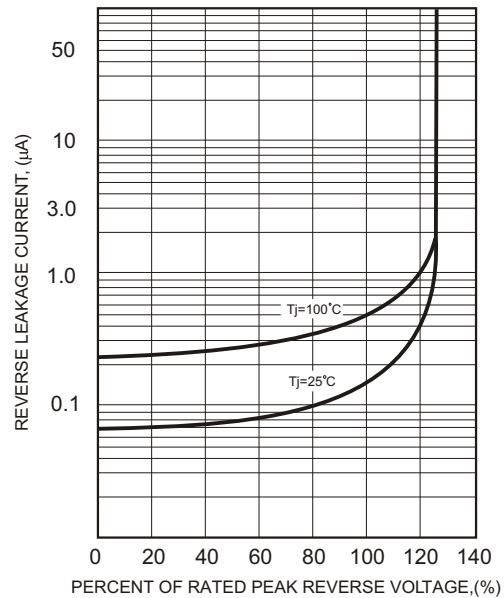


FIG.5-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

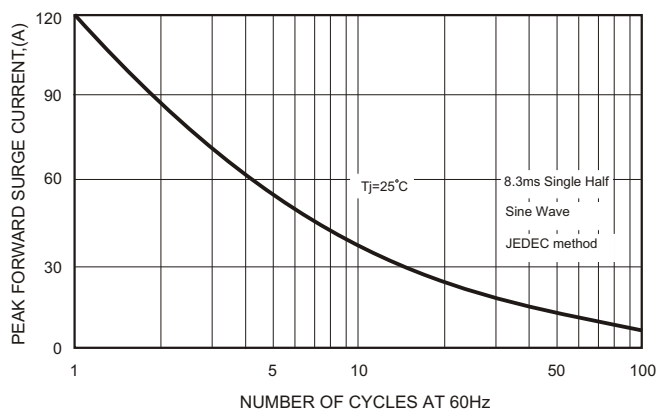


FIG.6-TYPICAL JUNCTION CAPACITANCE

