

MUR1020 THRU MUR1060 10.0 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

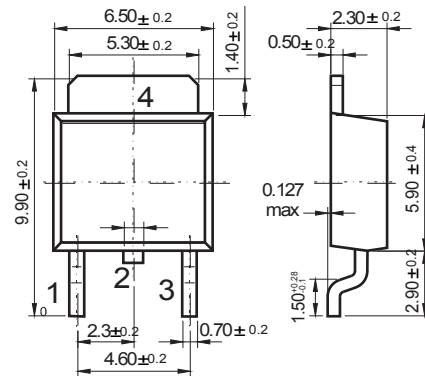
CURRENT

10.0 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	MUR1020	MUR1040	MUR1060	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 at $T_L=100^\circ\text{C}$		10.0		A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)		175		A
Maximum Instantaneous Forward Voltage at 10.0A	1.0	1.3	1.7	V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_a=25^\circ\text{C}$		5.0		μA
$T_a=100^\circ\text{C}$		150		μA
Maximum Reverse Recovery Time (Note 1)		35		nS
Typical Junction Capacitance (Note 2)		95		pF
Operating and Storage Temperature Range T_J, T_{STG}		-65 — +150		$^\circ\text{C}$

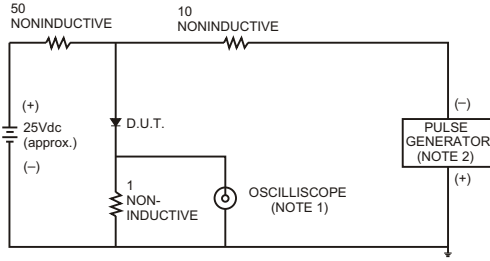
NOTES:

- Reverse Recovery Time test condition: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{RR}=0.25\text{A}$
- Measured at 1MHz and applied reverse voltage of 4.0V D.C.

RATING AND CHARACTERISTIC CURVES (MUR1020 THRU MUR1060)

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

FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE



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

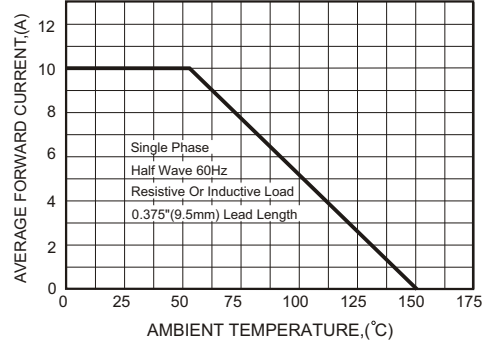
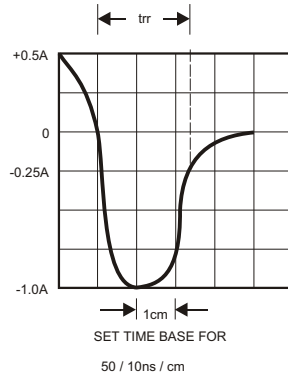


FIG.3-TYPICAL FORWARD CHARACTERISTICS

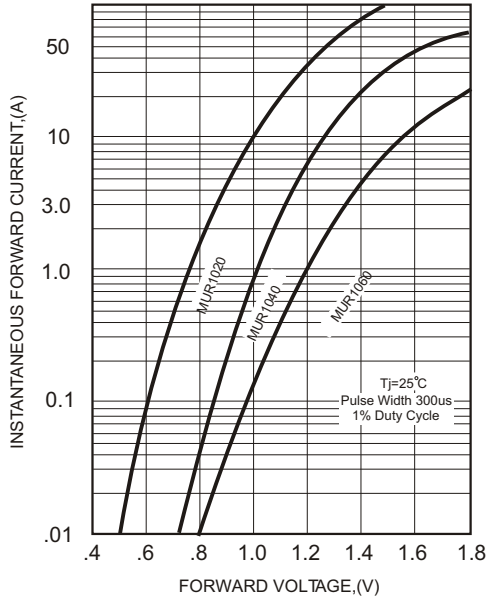


FIG.4-TYPICAL REVERSE CHARACTERISTICS

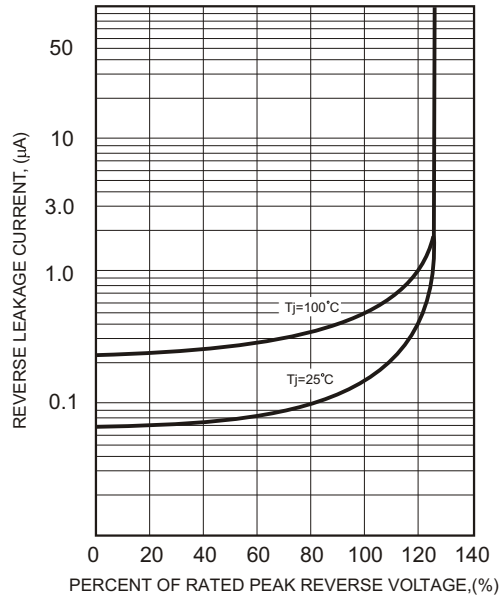


FIG.5-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

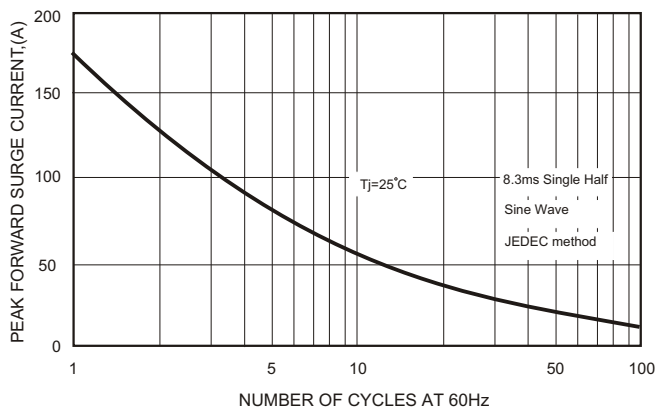


FIG.6-TYPICAL JUNCTION CAPACITANCE

