

MUR460GR

4.0AMPS .GLASS PASSIVATED ULTRA FAST RECTIFIERS

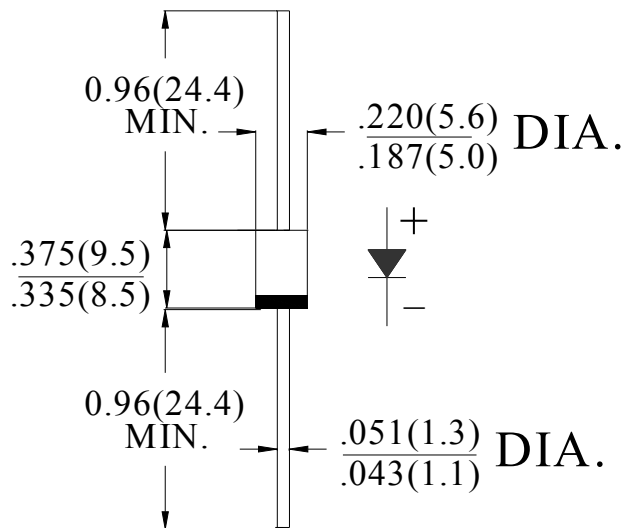
FEATURE

- . Glass passivated chip
- . High current capability
- . Low forward voltage drop
- . High surge capability
- . Superfast recovery time for high efficiency
- . High temperature soldering guaranteed
260°C /1 0sec/0.375" lead length at 5 lbs tension

MECHANICAL DATA

- . Terminal: Plated axial leads solderable per MIL-STD 202E, method 208C
- . Case: Molded with UL-94 Class V-0 recognized Flame Retardant Epoxy (free halogen)
- . Polarity: color band denotes cathode
- . Weight: 1.0 grams
- . Mounting position: any

DO-27/DO-201AD



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 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	SYM BOL	MUR460GR	units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	600	V
Maximum RMS Voltage	V_{RMS}	420	V
Maximum DC blocking Voltage	V_{DC}	600	V
Maximum Average Forward Rectified Current .375"(9.5mm) lead length at $T_L = 120^\circ\text{C}$	$I_{F(AV)}$	4.0	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	110.0	A
Maximum Forward Voltage at 4.0A DC	V_F	1.28	V
Maximum DC Reverse Current @ $T_J = 25^\circ\text{C}$ at rated DC blocking voltage @ $T_J = 150^\circ\text{C}$	I_R	10.0 250.0	μA
I^2t Rating for Fusing ($t < 8.3\text{ms}$)	I^2t	50	A^2s
Maximum Reverse Recovery Time (Note 1)	t_{rr}	50	nS
Typical Junction Capacitance (Note 2)	C_J	60	pF
Typical Thermal Resistance (Note 3)	$R_{(JL)}$	11	$^\circ\text{C}/\text{W}$
	$R_{(JC)}$	12	
Storage Temperature	T_{STG}	-55 to +175	$^\circ\text{C}$
Operation Junction Temperature	T_J	-55 to +175	$^\circ\text{C}$

Note:

1. Reverse Recovery test Condition: $I_f = 0.5\text{A}$, $I_R = 1.0\text{A}$, $IRR = 0.25\text{A}$;
2. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
3. Thermal Resistance from Junction to Ambient at 0.375"(9.5mm) lead length, with leads attached to heat sink

RATING AND CHARACTERISTIC CURVES (MUR460GR)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

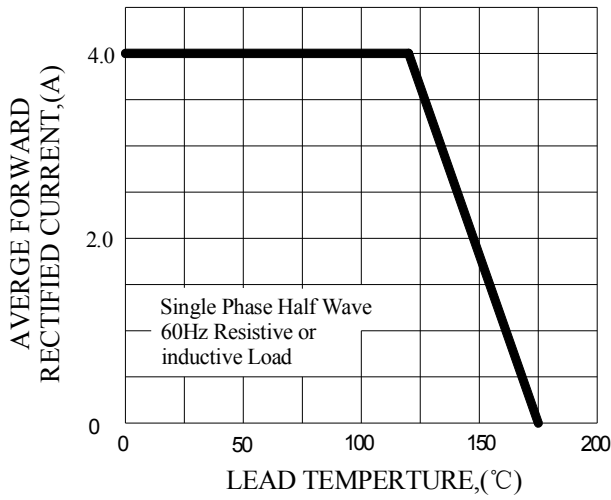


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

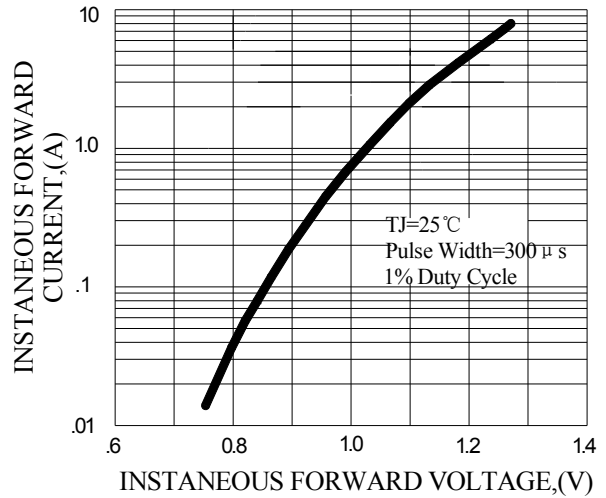


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

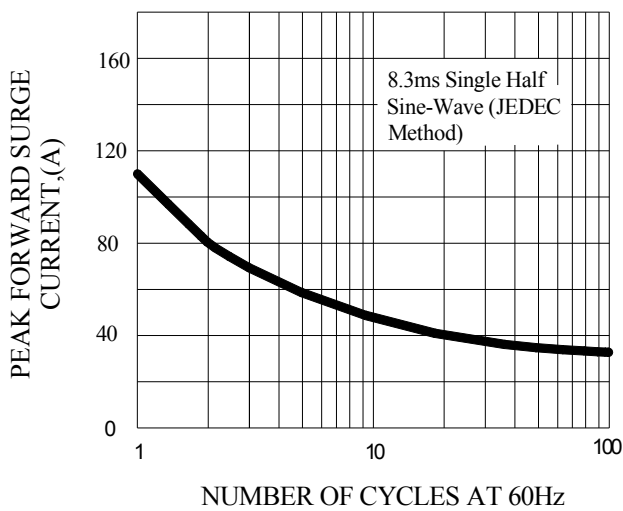


FIG.4-TYPICAL REVERSE CHARACTERISTICS

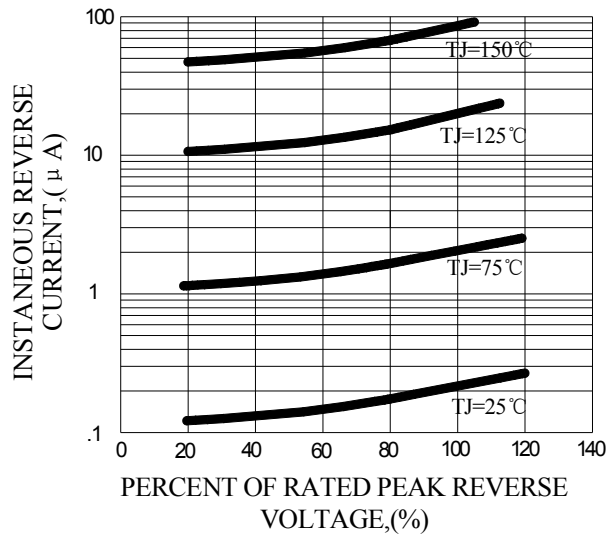


FIG.5-TYPICAL JUNCTION CAPACITANCE

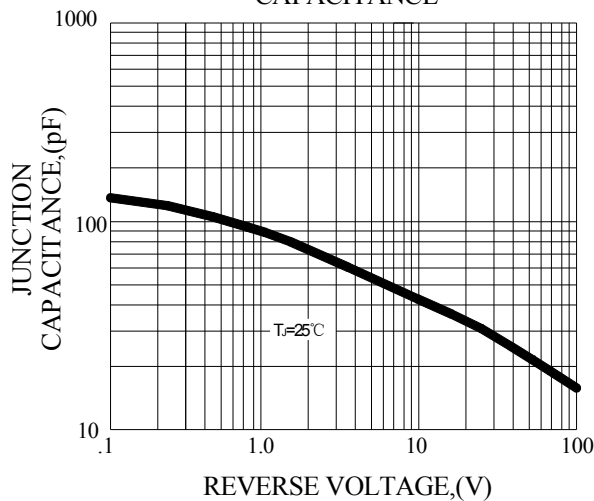
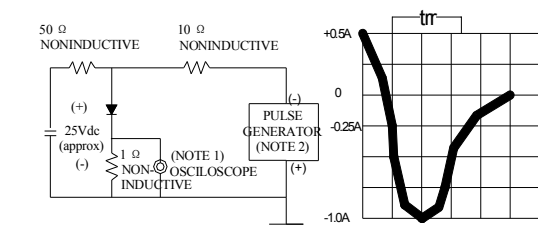


FIG.6-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



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