

FAST RECOVERY GLASS PASSIVATED RECTIFIER

<p>FEATURES</p> <ul style="list-style-type: none"> • Fast switching for high efficiency • High current surge capability • Low leakage • Glass passivated chip junction • High temperature soldering guaranteed: 260°C/10 seconds/0.375" (9.5mm) lead length at 5 lbs (2,3kg) tension <p>MECHANICAL DATA</p> <ul style="list-style-type: none"> • Case: Transfer molded plastic • Epoxy: UL94V-0 rate flame retardant • Polarity: Color band denotes cathode end • Lead: Plated axial lead, solderable per MIL-STD-202E method 208c • Mounting position: Any • Weight: 0.012 ounce, 0.33 gram 	<p>VOLTAGE RANGE CURRENT</p> <p>200 to 1000 Volts 1.0 Ampere</p> <p style="text-align: right;">DO-41</p> <p style="text-align: center;">Dimensions in inches and (millimeters)</p>
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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%

	SYMBOLS	IN 4942G	IN 4944G	IN 4946G	IN 4947G	IN 4948G	UNITS
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	200	400	600	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V_{DC}	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current 0.375" (9.5mm) lead length at $T_A=55^\circ C$	$I_{(AV)}$	1.0					Amp
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30					Amps
Maximum Instantaneous Forward Voltage at 1.0A	V_F	1.3					Volts
Maximum DC Reverse Current at rated DC blocking voltage	$T_A=25^\circ C$	5.0					μ Amps
	$T_A=125^\circ C$	200					
Maximum Reverse Recovery Time(NOTE3)	t_{rr}	150		250		500	nS
Typical Junction Capacitance(NOTE1)	C_J	15					pF
Typical Thermal Resistance(NOTE2)	$R_{\theta JA}$	50					$^\circ C/W$
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +175					$^\circ C$

NOTES:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.
2. Thermal Resistance from Junction to Ambient at 0.375" (9.5mm) lead length, P.C. board mounted.
3. Test Conditions: $I_F=0.5A, I_R=1.0A, I_{rr}=0.25A$.

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

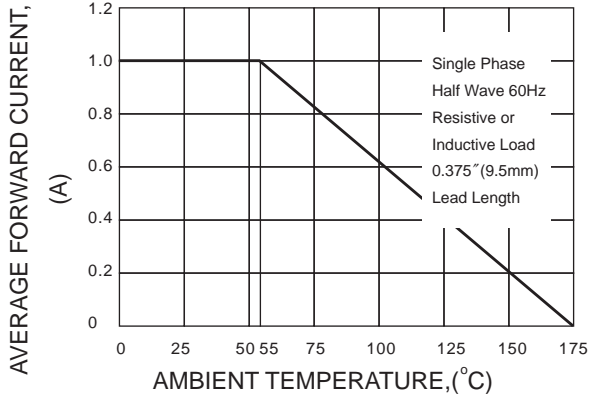


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

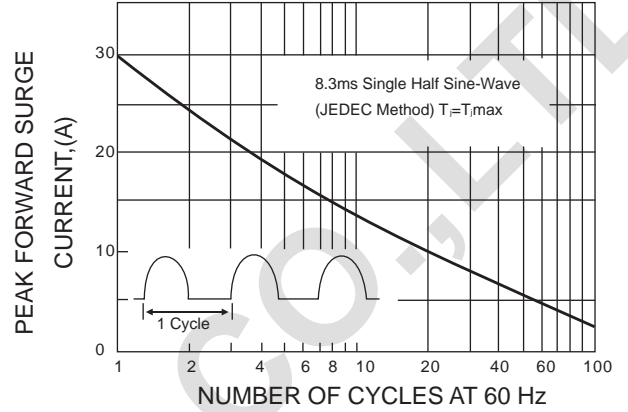


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

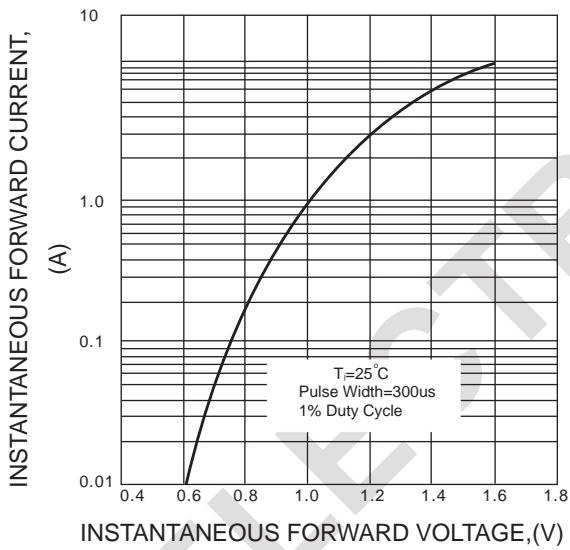


FIG.4-TYPICAL REVERSE CHARACTERISTICS

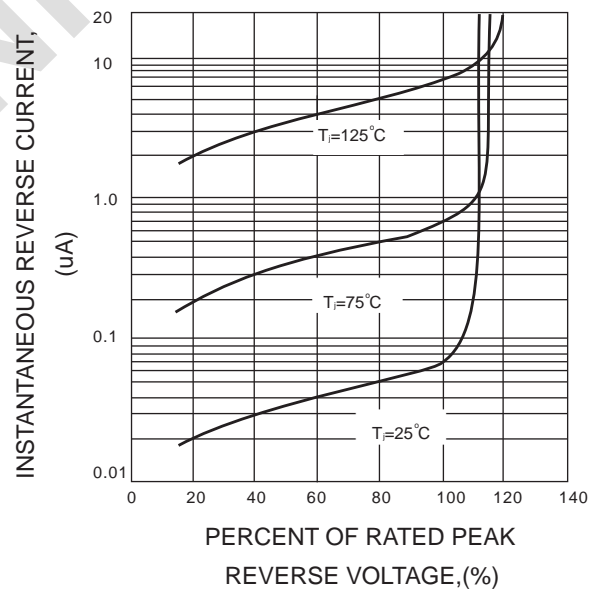


FIG.5-TYPICAL JUNCTION CAPACITANCE

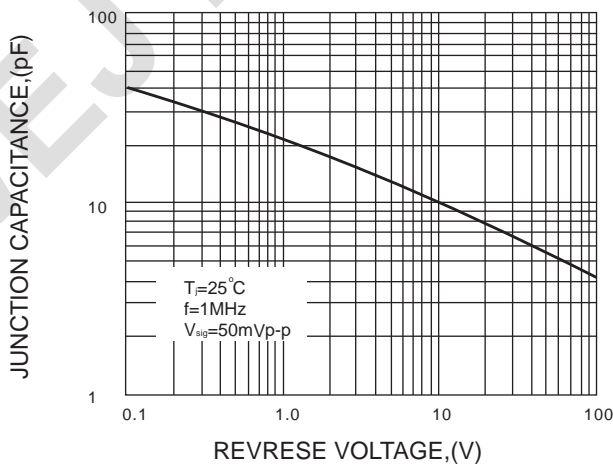


FIG.6-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

