VISHAY MAS 威世马来
GENERAL SEMICONDUCTOR

1.0 AMP GLASS PASSIVATED FAST RECOVERY RECTIFIERS

1N4942G THRU 1N4948G

Vishaymas General Semiconductor

FEATURES

- Low forward voltage drop
- Low leakage current
- High reliability
- High current capability
- Glass passivated junction

MECHANICAL DATA

Case: Molded plastic
Epoxy: UL 94V-0 rate flame retardant
Lead: Axial leads, solderable per MIL-STD-202, method 208 guranteed
Polarity: Color band denotes cathode end
Mounting position: Any
Weight: 0.34 grams

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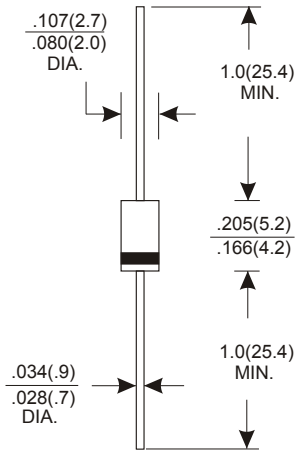


Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

TYPE NUMBER	1N4942G	1N4944G	1N4946G	1N4947G	1N4948G	UNITS
Maximum Recurrent Peak Reverse Voltage	200	400	600	800	1000	V
Maximum RMS Voltage	140	280	420	560	700	V
Maximum DC Blocking Voltage	200	400	600	800	1000	V
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length at Ta=55°C	1.0					A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	30					A
Maximum Instantaneous Forward Voltage at 1.0A	1.3					V
Maximum DC Reverse Current Ta=25°C	5.0					μA
at Rated DC Blocking Voltage Ta=100°C	100					μA
Maximum Reverse Recovery Time (Note 1)	150		250		500	nS
Typical Junction Capacitance (Note 2)	15					pF
Operating and Storage Temperature Range T_J, T_{STG}	-65 — +175					°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.

FIG.1-TYPICAL FORWARD

CHARACTERISTICS

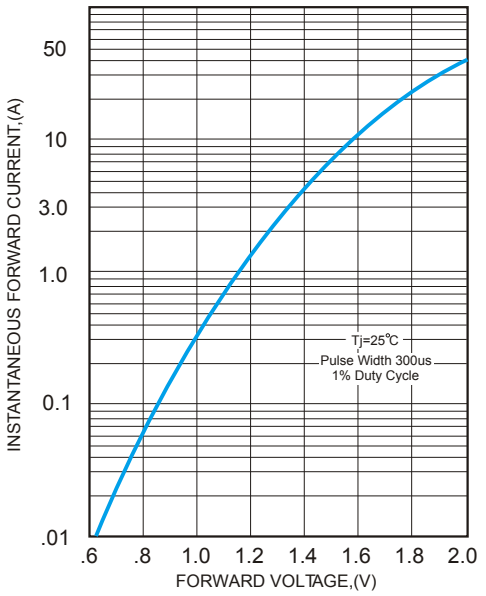


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

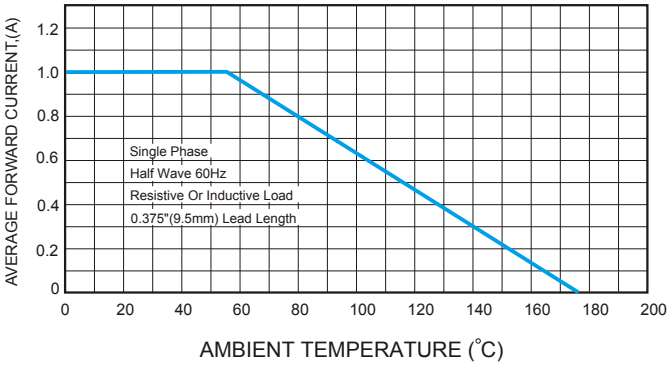
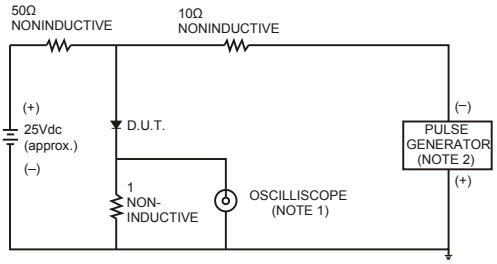


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE

RECOVERY TIME CHARACTERISTICS



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm.22pF.

2. Rise Time= 10ns max., Source Impedance= 50 ohms.

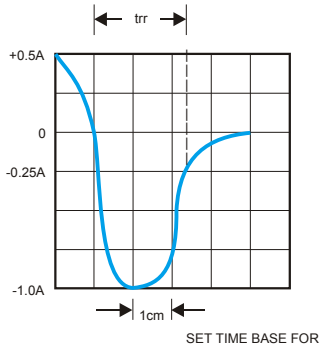


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

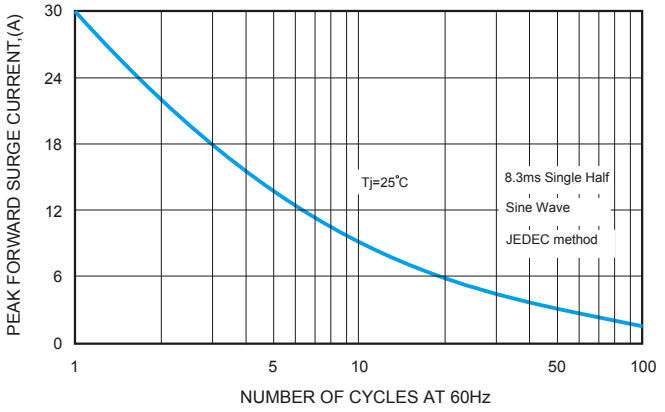


FIG.5-TYPICAL JUNCTION CAPACITANCE