

# 1N4942G THRU 1N4948G



1.0 AMP GLASS PASSIVATED FAST RECOVERY RECTIFIERS



## FEATURES

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

## MECHANICAL DATA

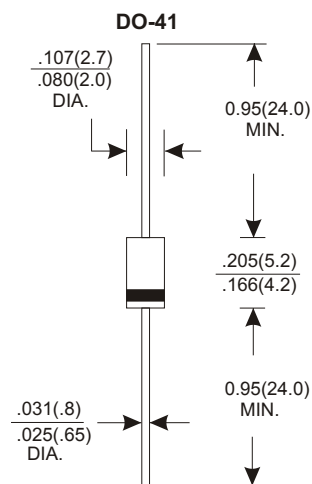
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
- \* Polarity: Color band denotes cathode end
- \* Mounting position: Any
- \* Weight: 0.28 grams
- \* Lead Free Finish/RoHS Compliant

## VOLTAGE RANGE

200 to 1000 Volts

## CURRENT

1.0 Ampere



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	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					uA
at Rated DC Blocking Voltage Ta=100°C	100					uA
Maximum Reverse Recovery Time (Note 1)	150		250		500	nS
Typical Junction Capacitance (Note 2)	15					pF
Operating and Storage Temperature Range Tj, TSTG	-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 (1N4942G THRU 1N4948G)

FIG.1-TYPICAL FORWARD CHARACTERISTICS

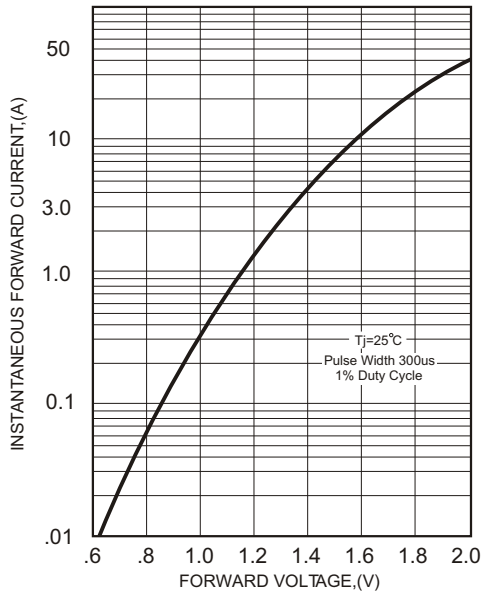


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

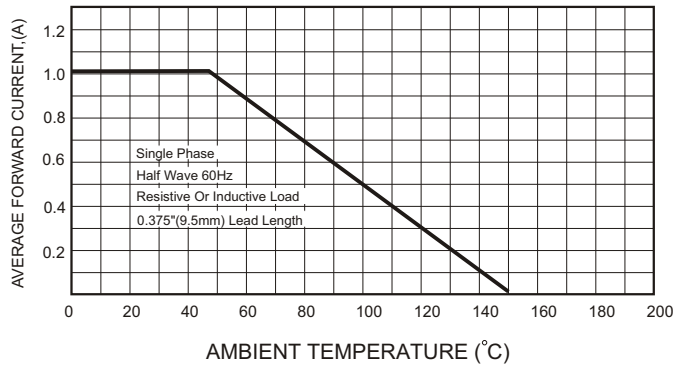


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

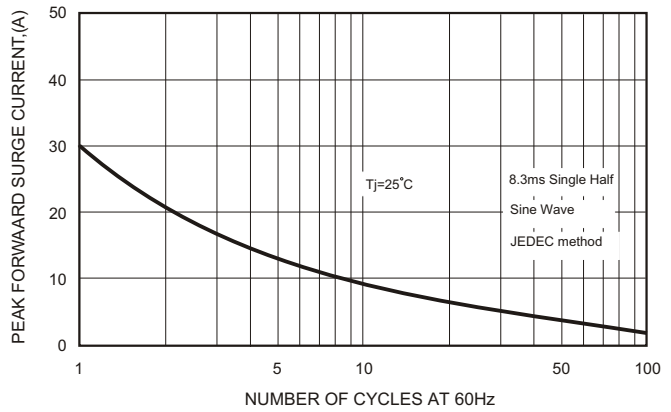
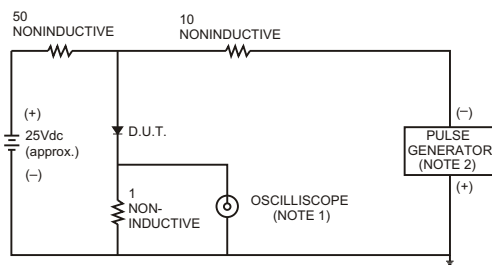


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



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

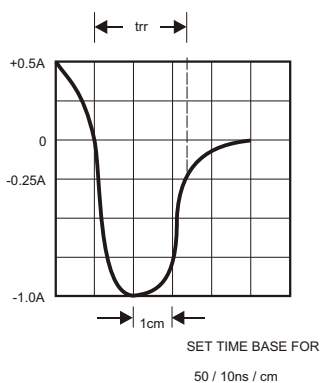


FIG.5-TYPICAL JUNCTION CAPACITANCE

