

1N4942G THRU 1N4948G

FAST RECOVERY GLASS PASSIVATED RECTIFIERS

FEATURES:

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

MECHANICAL DATA

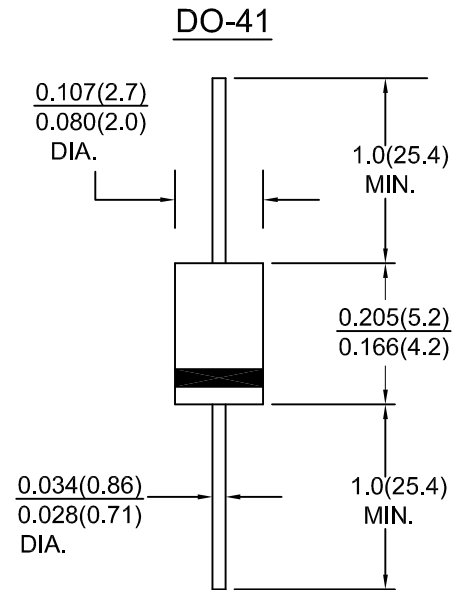
Case : Molded plastic use UL 94V-0 recognized flame retardant epoxy

Terminals : Axial leads, solderable per MIL-STD-202, Method 208 guaranteed

Polarity : Color band on body denotes cathode end

Mounting Position : Any

Weight : 0.34 grams



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25° C ambient temp. unless otherwise specified.

Single phase, half sine wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20 %.

Characteristic	Symbol	1N4942G	1N4944G	1N4946G	1N4947G	1N4948G	Units
Maximum recurrent 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 .375 lead length at Ta=55° C	I _(AV)	1.0					Amps
Peak forward surge current ,8.3ms single half sine-wave superimposed on rated load(JEDEC Method)	I _{FSM}	30.0					Amps
Maximum instantaneous forward voltage drop at 1.0 A	V _F	1.3					Volts
Maximum DC reverse current at rated DC blocking voltage	I _R	5.0 100.0					μ A
Typical reverse recovery time (note 1)	t _{rr}	150	250		500		nS
Typical junction capacitance (note 2)	C _j	15.0					pF
Operating junction and storage temperature range	T _j , T _{stg}	-65 to +150					° C

NOTES:1. Reverse recovery test condition; I_F=0.5A, I_R=1.0A, I_{RR}=0.25A

2. Measured at 1MHz and Applied reverse voltage of 4.0V.DC

RATINGS AND CHARACTERISTIC CURVES 1N4942G THRU 1N4948G

FIG.1-TYPICAL FORWARD CHARACTERISTICS

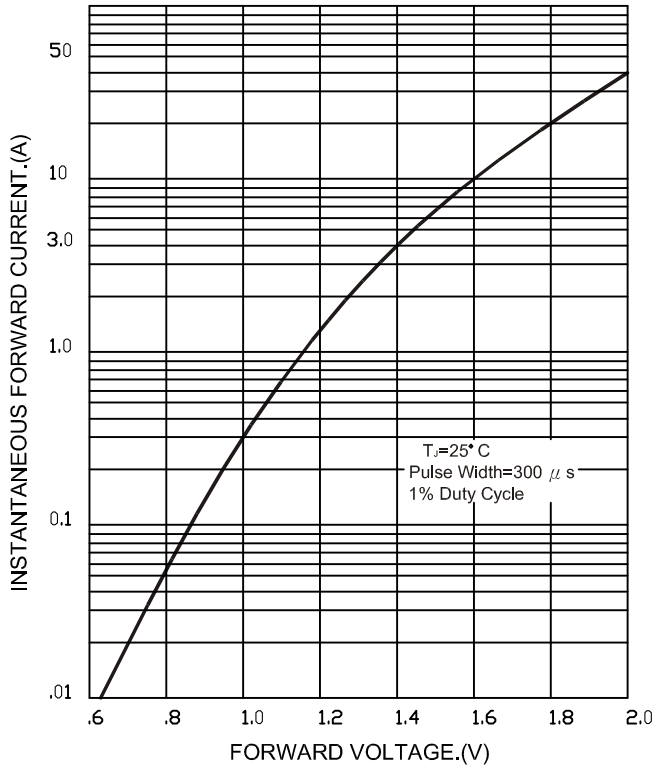


FIG.2 - TYPICAL FORWARD CURRENT DERATING CURVE

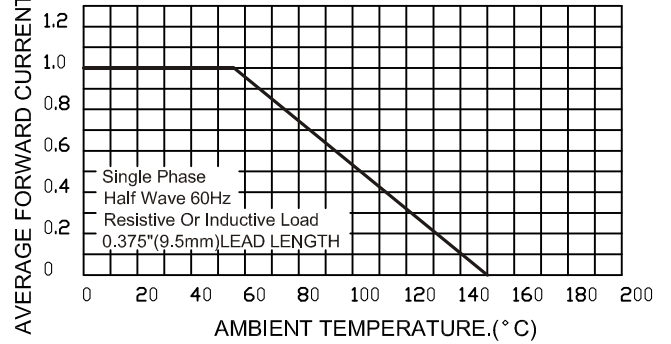
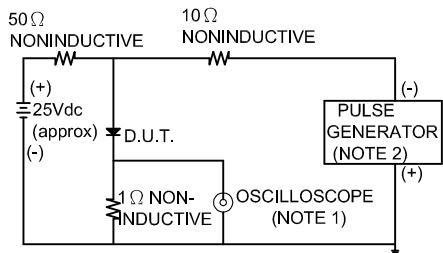


FIG.3-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



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

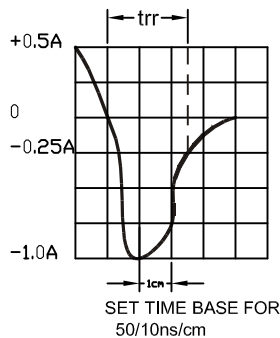


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

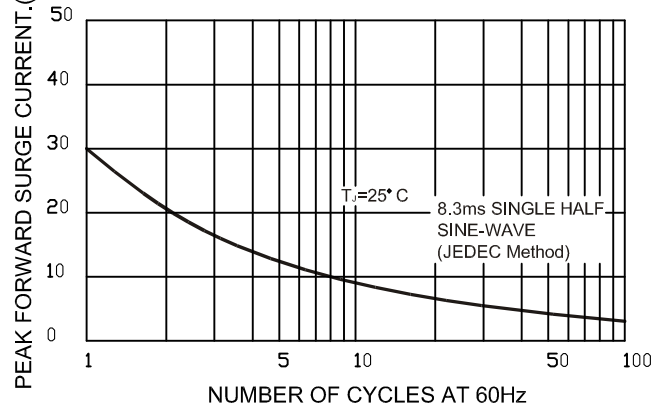


FIG.5-TYPICAL JUNCTION CAPACITANCE

