

1.0 AMP GLASS PASSIVATED FAST RECOVERY RECTIFIERS

1N4933G THRU 1N4937G Vishaymas General Semiconductor

FEATURES

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

MECHANICAL DATA

Case: Molded plastic

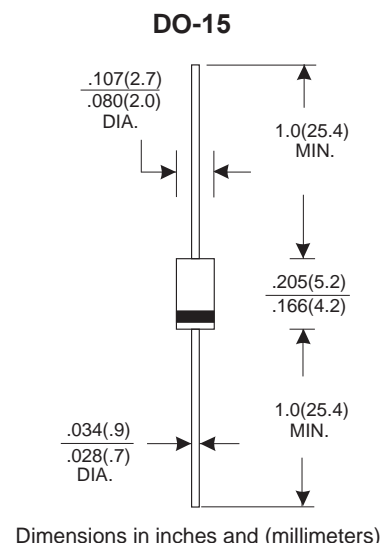
Epoxy: UL 94V-0 rate flame retardant

Lead: Axial leads, solderable per MIL-STD-202,
 method 208 guaranteed

Polarity: Color band denotes cathode end

Mounting position: Any

Weight: 0.34 grams



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	1N4933G	1N4934G	1N4935G	1N4936G	1N4937G	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	V
Maximum RMS Voltage	35	70	140	280	420	V
Maximum DC Blocking Voltage	50	100	200	400	600	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	1.2					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)	200					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: I_F=1.0A, V_R=30V.
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

FIG.1-TYPICAL FORWARD CHARACTERISTICS

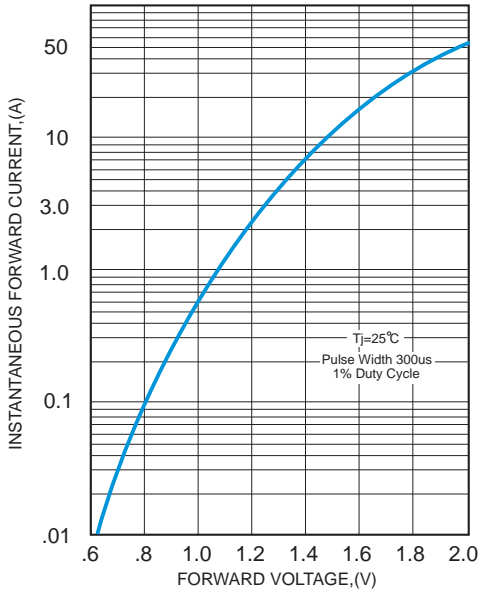


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

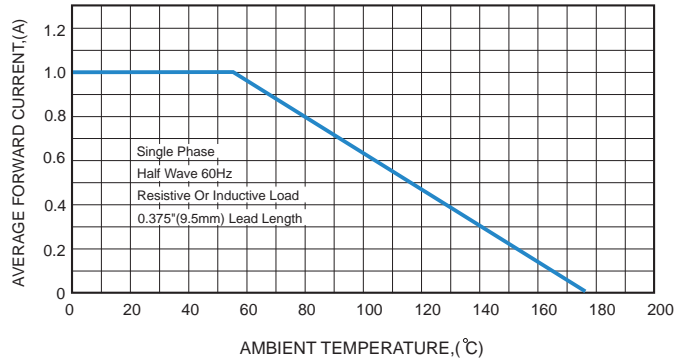


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

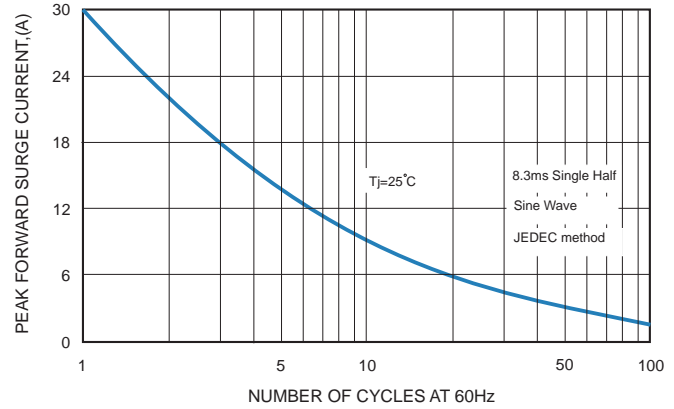
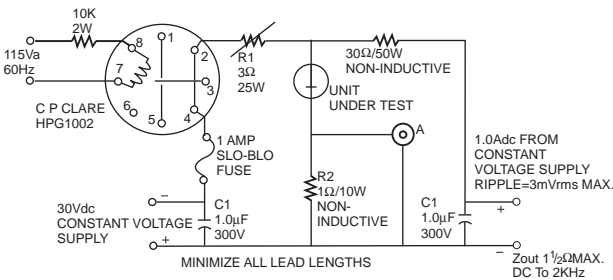


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



A-TEKTRONIX 545A, K PLUG IN PRE AMP P6000 PROBE OR EQUIVALENT
R1- ADJUSTED FOR 14 BETWEEN POINT 2 OF RELAY AND RECTIFIER INDUCTIVE=3.8μH
R2- TEN 1W 10 Ω 1% CARBON CORE IN PARALLEL
TA= 25 \pm 10 °C FOR RECTIFIER

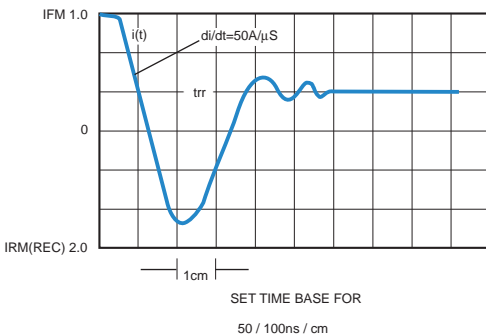


FIG.5-TYPICAL JUNCTION CAPACITANCE

