



1H1G thru 1H8G

Glass Passivated High Efficient Rectifiers
Reverse Voltage 50 to 1000 Volts Forward Current 1.0 Ampere

Features

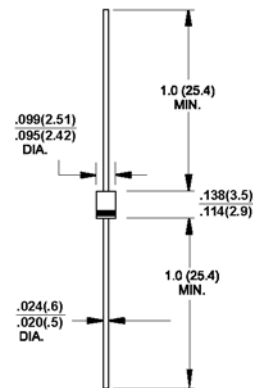
- ◆ Low forward voltage drop
- ◆ High current capability
- ◆ High reliability
- ◆ High surge current capability



R-1

Mechanical Data

- ◆ Case: Molded plastic R-1
- ◆ Epoxy: UL 94V-O rate flame retardant
- ◆ Lead: Axial leads, solderable per MIL-STD-202, Method 208 guaranteed
- ◆ Polarity: Color band denotes cathode end
- ◆ High temperature soldering guaranteed: 250°C/10 seconds .375" (9.5mm) lead lengths at 5 lbs., (2.3kg) tension
- ◆ Mounting position: Any
- ◆ Weight: 0.007 ounce, 0.20 gram



Maximum Ratings and Electrical Characteristics

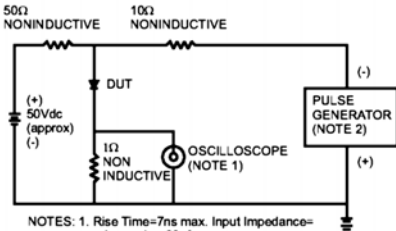
Ratings at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%

Parameter	Symbols	1H1G	1H2G	1H3G	1H4G	1H5G	1H6G	1H7G	1H8G	Units
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	300	400	600	800	1000	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	210	280	420	560	700	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	300	400	600	800	1000	Volts
Maximum average forward rectified current .375" (9.5mm) lead length @ $T_A=55^\circ\text{C}$	I_{AVI}	1.0								Amp
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 @ 1.0A	V_F	1.0			1.3		1.7			Volts
Maximum DC reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=125^\circ\text{C}$	I_R	5.0				100				μA μA
Maximum reverse recovery time (Note 1)	t_r	50					75			nS
Typical junction capacitance (Note 2)	C_j	20					15			pF
Operating junction temperature range	T_J	-55 to +150								$^\circ\text{C}$
Storage temperature range	T_{STG}	-55 to +150								$^\circ\text{C}$

Notes: 1. Reverse Recovery Test Conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{RR}=0.25\text{A}$
2. Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.

RATINGS AND CHARACTERISTIC CURVES

FIG.1- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



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

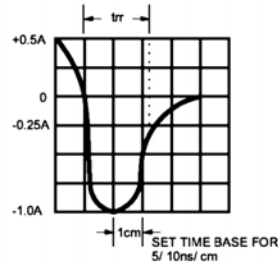


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

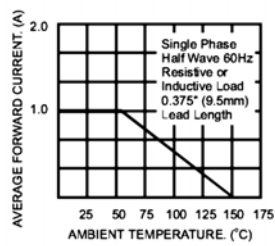


FIG.3- TYPICAL REVERSE CHARACTERISTICS

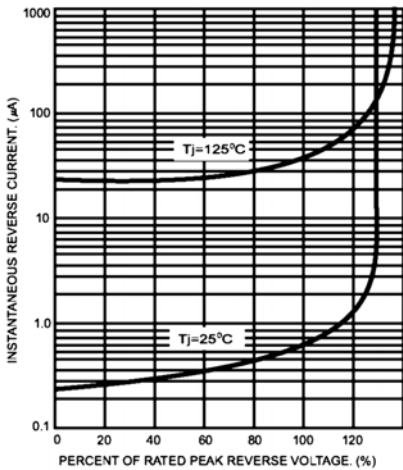


FIG.4- TYPICAL FORWARD CHARACTERISTICS

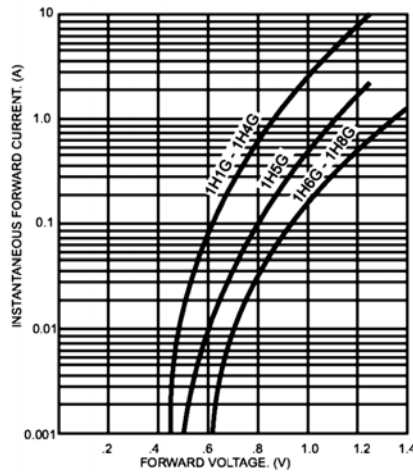


FIG.5- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

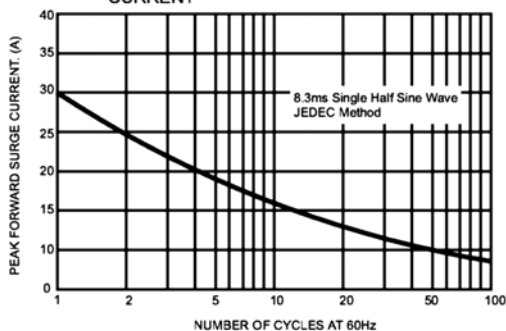


FIG.6- TYPICAL JUNCTION CAPACITANCE

