

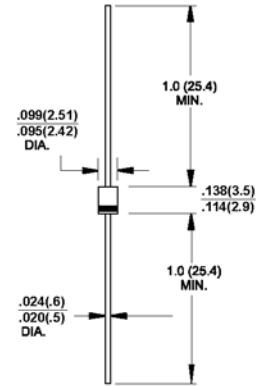
Features

- < 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



Dimensions in inches and (millimeters)

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_{AV}	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
Maximum reverse recovery time (Note 1)	t_{rr}	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

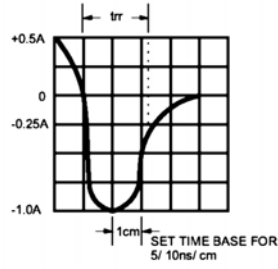
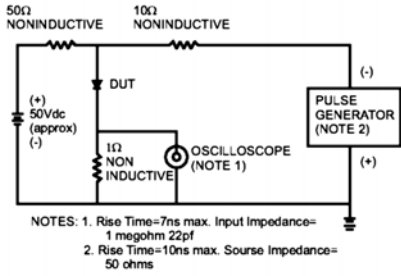


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

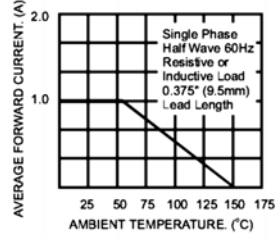


FIG.3- TYPICAL REVERSE CHARACTERISTICS

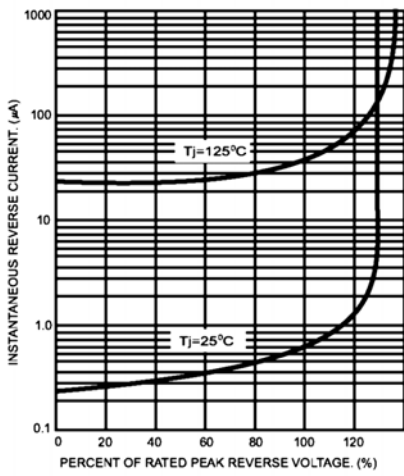


FIG.4- TYPICAL FORWARD CHARACTERISTICS

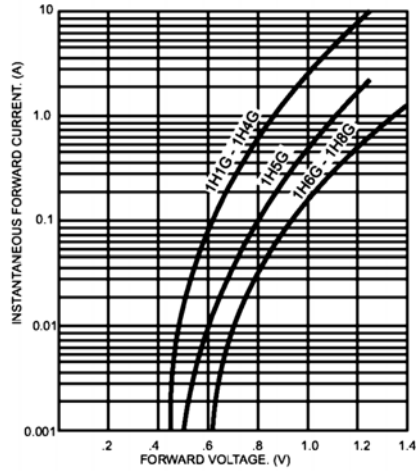


FIG.5- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

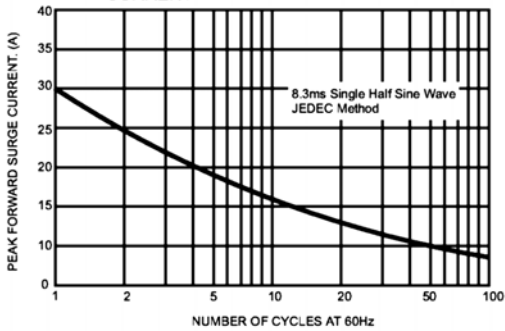
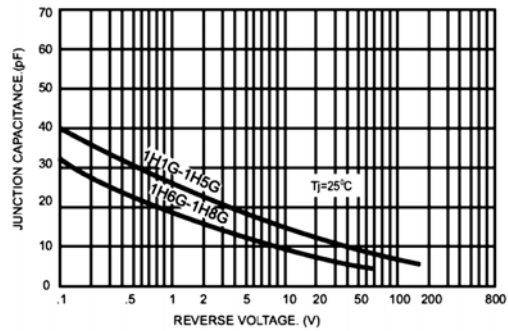


FIG.6- TYPICAL JUNCTION CAPACITANCE



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