HER1G1 THRU HER1G7

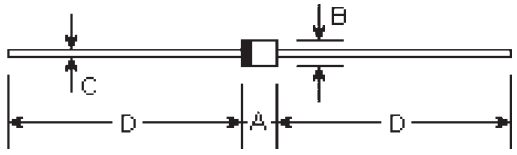
MINIATURE HIGH EFFICIENCY GLASS PASSIVATED RECTIFIER

Reverse Voltage - 50 to 1000 Volts
Forward Current - 1.0 Ampere

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0 utilizing Flame retardant epoxy molding compound
- Glass passivated junction in R-1 package
- 1.0 ampere operation at T_A=55℃ with no thermal runway
- Ultra fast switching for high efficiency

R-1



Mechanical Data

- **Case:** Molded plastic, R-1
- **Terminals:** Axial leads, solderable per MIL-STD-202, method 208
- **Polarity:** Band denotes cathode
- **Mounting Position:** Any
- **Weight:** 0.007 ounce, 0.205 gram

DIMENSIONS					
DIM	inches		mm		Note
	Min.	Max.	Min.	Max.	
A	0.114	0.138	2.9	3.5	
B	0.095	0.099	2.42	2.51	ϕ
C	0.020	0.024	0.5	0.6	ϕ
D	1.000	-	25.40	-	

Maximum Ratings and Electrical Characteristics

Ratings at 25℃ ambient temperature unless otherwise specified.
SIngle phase, half wave, 60Hz, resistive or inductive load.

	Symbols	HER 1G1	HER 1G2	HER 1G3	HER 1G4	HER 1G5	HER 1G6	HER 1G7	Units
Peak reverse voltage, Repetitive;	V_{RM}	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
DC reverse voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Average forward current, I_O@T_A=55℃ 3/8" lead length, 60Hz, resistive or inductive load	$I_{(AV)}$	1.0							Amp
Peak forward surge current, I_{FM} (surge) 8.3mS single half sine-wave superimposed on rated load (MIL-STD-750D 4066 method)	I_{FSM}	30.0							Amps
Maximum forward voltage @1.0A, 25℃	V_F	1.00			1.30	1.70			Volts
Maximum reverse current, @ Rated reverse voltage T_j=25℃ / T_j=100℃	I_R	10.0 / 500.0							μA
Reverse recovery time (Note 1)	T_{rr}	50				75			nS
Typical junction capacitance (Note 2)	C_J	17.0							pF
Typical thermal resistance (Note 3)	$R_{\theta JA}$	60.0							℃/W
Operating and storage temperature range	T_J, T_{STG}	-55 to +150							℃

Notes:

(1) Reverse recovery test conditions: I_F=0.5A, I_R=1.0A, I_{rr}=0.25A

(2) Measured at 1.0MHz and applied reverse voltage of 4.0 VDC

(3) Thermal resistance from junction to ambient and from junction to lead length 0.375" (9.5mm) P.C.B. mounted

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RATINGS AND CHARACTERISTIC CURVES

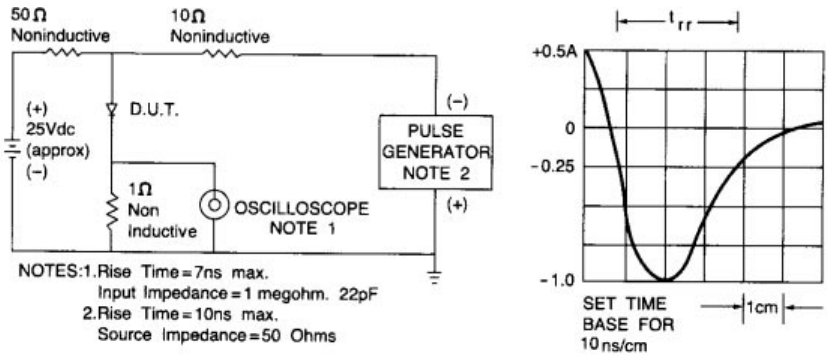

Fig. 1 – REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

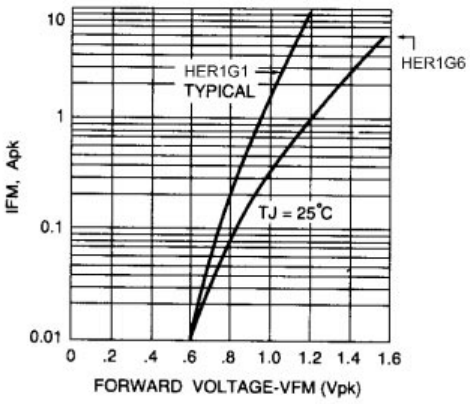

Fig. 2 – FORWARD CHARACTERISTICS

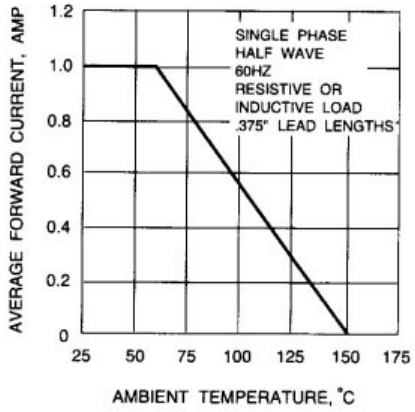

Fig. 3 – FORWARD CURRENT DERATING CURVE

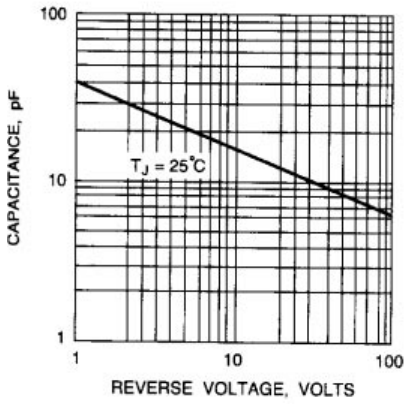

Fig. 4 – TYPICAL JUNCTION CAPACITANCE vs. REVERSE VOLTAGE

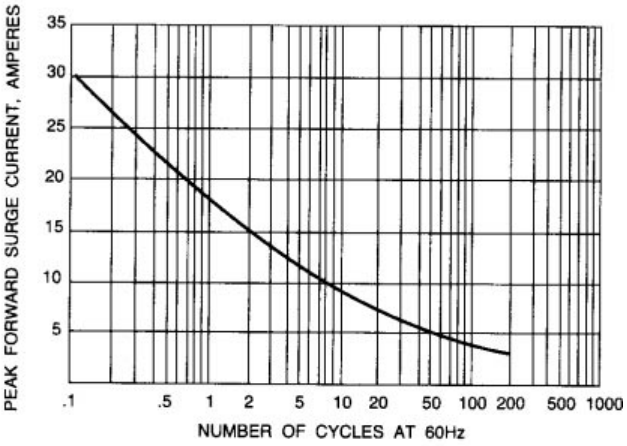

Fig. 5 – PEAK FORWARD SURGE CURRENT

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