HER601 THRU HER608

HIGH EFFICIENCY RECTIFIER

GROWCHILD ELECTRONICS™

REVERSE VOLTAGE: **50 to 1000 VOLTS**

FORWARD CURRENT: **6.0 AMPERE**

http://www.njzrg.com

FEATURES

· Plastic package has Underwriters Laboratory Flammability Classification 94V-O ctilizing Flame Retardant Epoxy Molding Compound.

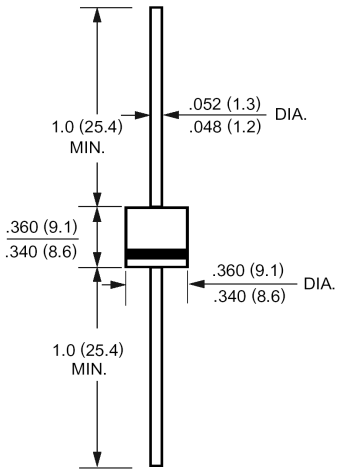
· Void-free Plastic in a R-6 package.

· 6.0 ampere operation at T_A=55℃ With no thermal runaway.

· Ultra Fast switching for high efficiency.

· Exceeds environmental standards of MIL-S-19500/228

R-6



Dimensions in inches and (millimeters)

MECHANICAL DATA

Case: Molded plastic, R-6

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

Polarity: Band denotes cathode

Mounting position: Any

Weight: 0.07ounce, 2.1gram

Maximum Ratings and Electrical Characteristics

Ratings at 25℃ ambient temperature unless otherwise specified.

Single phase, half wave, 60H_Z, resistive or inductive load.

For capacitive load, derate current by 20%.

	Symbols	*HER601*	*HER602*	*HER603*	*HER604*	*HER605*	*HER606*	*HER607*	*HER608*	Units
Maximum Recurrent 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 at T_A=55℃	$I_{(AV)}$	6.0								**Amp**
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	200								**Amp**
Maximum Forward Voltage at 6.0A and T_A=25℃	V_F	1.0			1.3		1.7			**Volts**
Maximum Reverse Current at T_J=25℃ at Rated DC Blocking Voltage T_J=100℃	I_R	10.0 1000								**uAmp**
Typical Junction Capacitance (Note 1)	C_J	100					65			**pF**
Maximum Reverse Recovery Time (Note 2)	T_{RR}	50					75			**nS**
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$	10								**℃/W**
Operating and Storage Temperature Range	T_J，Tstg	-55 to +150								**℃**

NOTES:

1- Measured at 1 MH_Z and applied reverse voltage of 4.0 VDC.

2- Reverse Recovery Test Conditions：I_F=.5A，I_R=1A，I_{RR}=.25A.

3- Thermal Resistance from Junction to Ambient at 0.375"(9.5mm) lead length P.C.B. Mounted.

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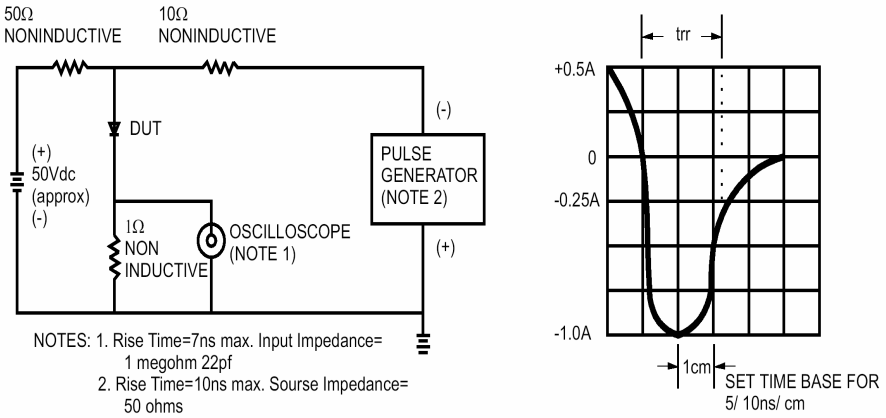
RATINGS AND CHARACTERISTIC CURVES

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. Sourse Impedance= 50 ohms

FIG.2- MAXIMUM AVERAGE FORWARD CURRENT DERATING

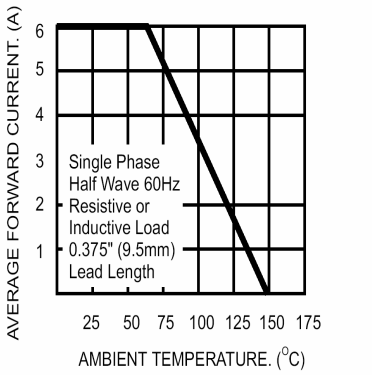


FIG.3- TYPICAL REVERSE CHARACTERISTICS

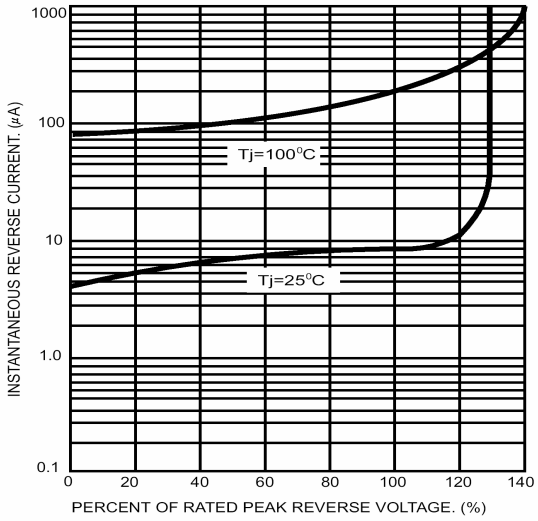


FIG.5- TYPICAL FORWARD CHARACTERISTICS

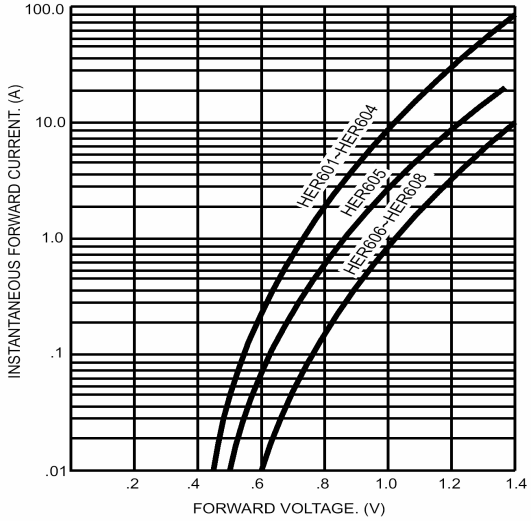


FIG.4- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

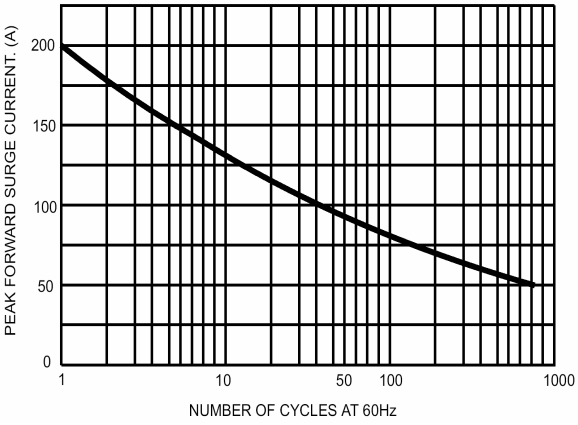


FIG.6- TYPICAL JUNCTION CAPACITANCE