



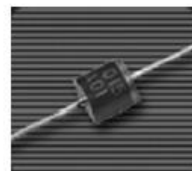
SYNSEMI SEMICONDUCTOR

HER601G thru HER608G

6.0 Amps. Glass Passivated High Efficient Rectifiers
Voltage Range 50 to 1000 Volts Forward Current 6.0 Amperes

Features

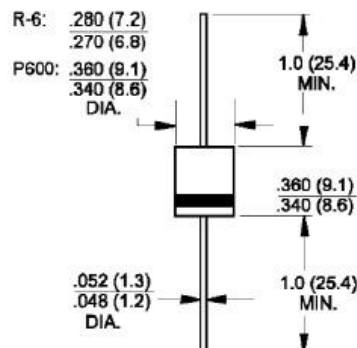
- ◆ Low forward voltage drop
- ◆ High current capability
- ◆ High reliability
- ◆ High surge current capability



R-6 or P600

Mechanical Data

- ◆ Case: Molded plastic R-6
- ◆ Epoxy: UL 94V-0 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: 0.074 ounce, 2.1 grams



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	HER 601G	HER 602G	HER 603G	HER 604G	HER 605G	HER 606G	HER 607G	HER 608G	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_{FAV}	6.0								Amps
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	250.0								Amps
Maximum instantaneous forward voltage @ 6.0A	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	10.0				200				μA μA
Maximum reverse recovery time (Note 1)	t_{rr}	50					75			nS
Typical junction capacitance (Note 2)	C_J	100					65			pF
Operating temperature range	T_J	-65 to +150								$^{\circ}\text{C}$
Storage temperature range	T_{STG}	-65 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.

HER601G thru HER608G

RATINGS AND CHARACTERISTIC CURVES

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

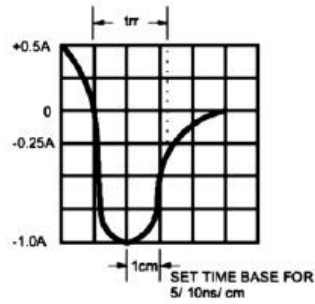
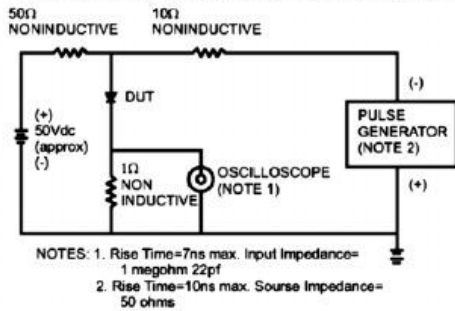


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

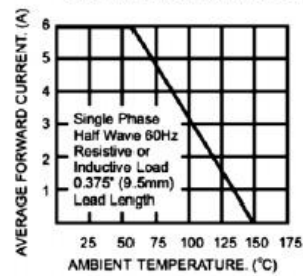


FIG.3- TYPICAL REVERSE CHARACTERISTICS

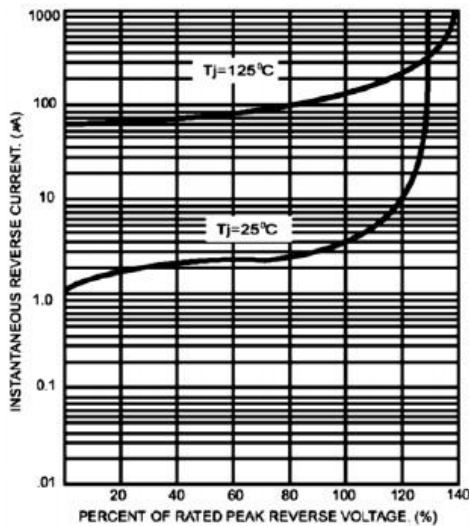


FIG.4- TYPICAL FORWARD CHARACTERISTICS

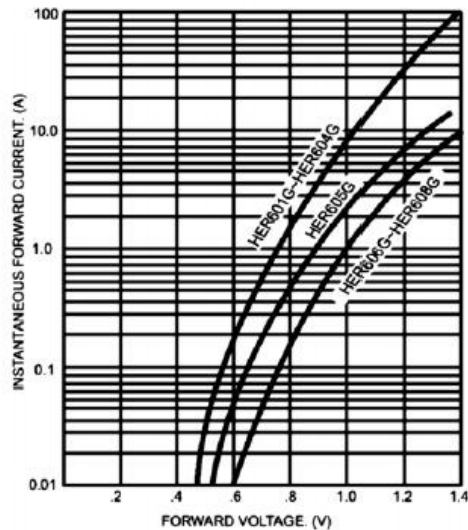


FIG.5- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

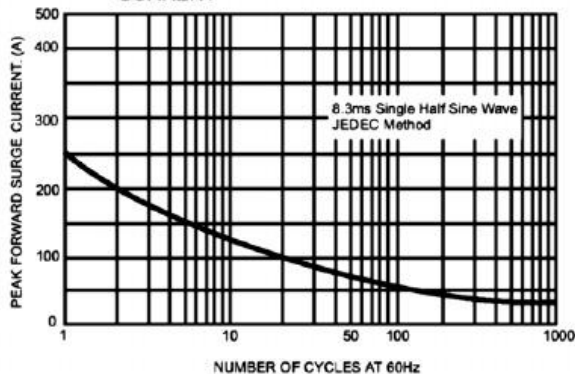


FIG.6- TYPICAL JUNCTION CAPACITANCE

