

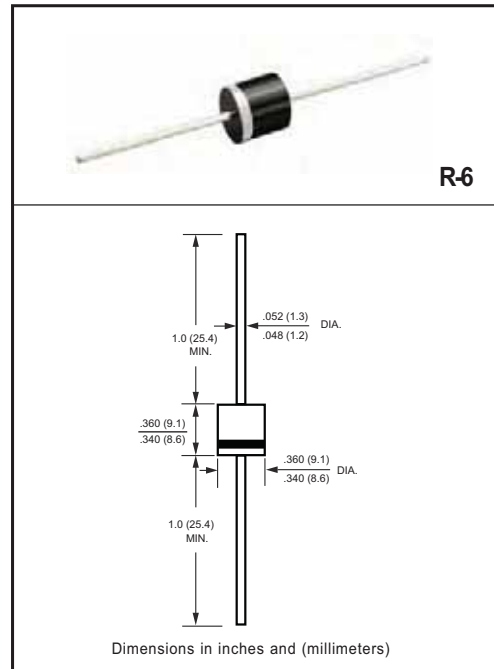
**HIGH EFFICIENCY RECTIFIER**  
**VOLTAGE RANGE 50 to 1000 Volts CURRENT 6.0 Amperes**

**FEATURES**

- \* Low power loss,high efficiency
- \* Low leakage
- \* Low forward voltage drop
- \* High current capability
- \* High speed switching
- \* High reliability
- \* High current surge

**MECHANICAL DATA**

- \* Epoxy: Device has UL flammability classification 94V-O
- \* Case: Molded plastic
- \* Lead: MIL-STD-202E method 208C guaranteed
- \* Mounting position: Any



**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25 °C ambient temperature unless otherwise specified.  
resistive or inductive load.

**MAXIMUM RATINGS (@ TA=25 °C unless otherwise noted)**

RATINGS	SYMBOL	HER601G	HER602G	HER603G	HER604G	HER605G	HER606G	HER607G	HER608G	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	300	400	600	800	1000	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	210	280	420	560	700	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	300	400	600	800	1000	Volts
Maximum Average Forward Rectified Current at T <sub>A</sub> = 50°C	I <sub>O</sub>	6.0								Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	200								Amps
Typical Current Squared Time	I <sup>2</sup> T	166								A <sup>2</sup> S
Typical Thermal Resistance (Note 1)	R <sub>θJA</sub>	10								°C/W
Typical Junction Capacitance (Note 2)	C <sub>J</sub>	100								pF
Operating Temperature Range	T <sub>J</sub>	-65 to + 150								°C
Storage Temperature Range	T <sub>STG</sub>	-65 to + 150								°C

**ELECTRICAL CHARACTERISTICS(@TA=25 °C unless otherwise noted)**

CHARACTERISTICS	SYMBOL	HER601G	HER602G	HER603G	HER604G	HER605G	HER606G	HER607G	HER608G	UNITS	
Maximum Instantaneous Forward Voltage at 6.0A DC	V <sub>F</sub>	1.0			1.25		1.70			Volts	
Maximum Average Reverse Current at Rated DC Blocking Voltage	I <sub>R</sub>	@T <sub>A</sub> = 25°C								μA	
		@T <sub>A</sub> = 150°C								mA	
Maximum Reverse Recovery Time (Note 4)	t <sub>rr</sub>	50					70				nSec

- NOTES : 1. Thermal Resistance : At 9.5mm lead length,PCB mounted.  
 2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.  
 3. " ROHS compliant".  
 4. Test Conditions: I<sub>F</sub>= 0.5A, I<sub>R</sub>= -1.0A, I<sub>RR</sub>= -0.25A.  
 5. Available in Halogen-free epoxy by adding suffix -HF after the part nbr.

# RATING AND CHARACTERISTICS CURVES ( HER601G THRU HER608G )

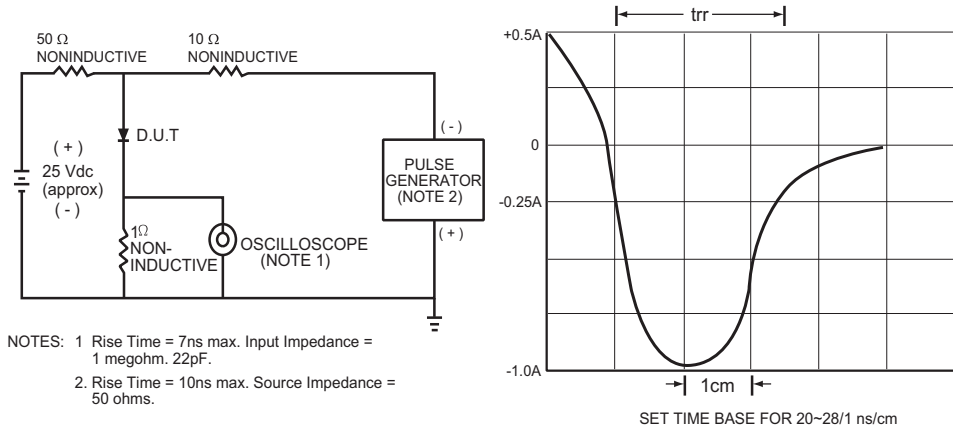


FIG.1 TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

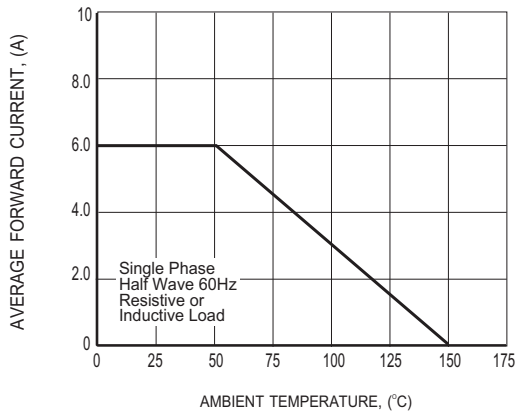


FIG.2 TYPICAL FORWARD CURRENT DERATING CURVE

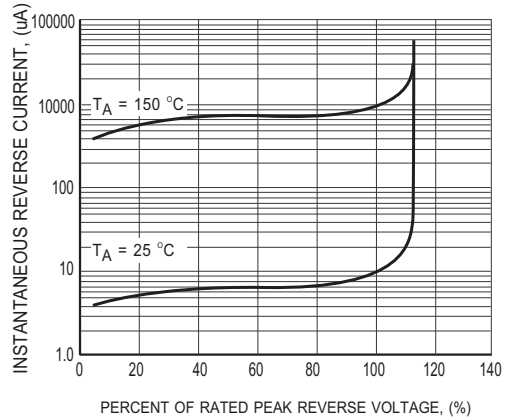
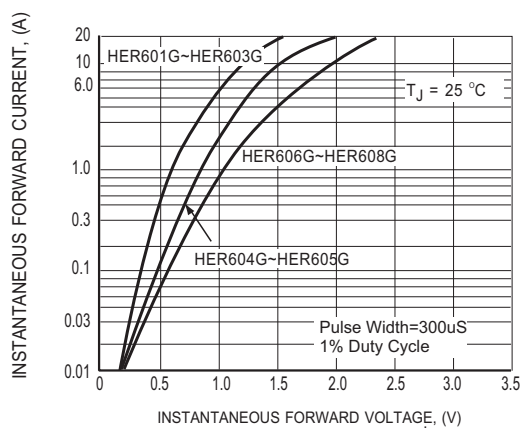
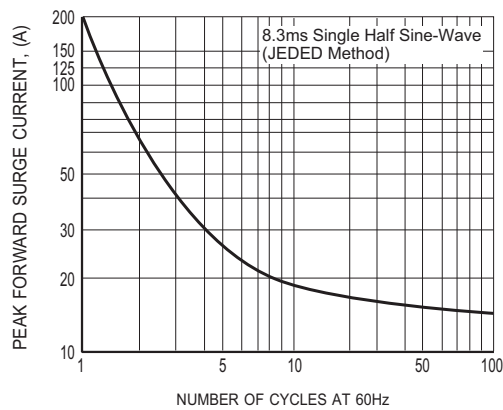


FIG.3 MAXIMUM REVERSE CHARACTERISTICS

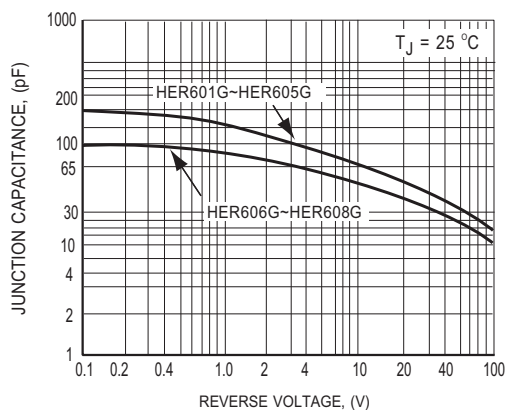
## RATING AND CHARACTERISTICS CURVES ( HER601G THRU HER608G )



**FIG.4 MAXIMUM INSTANTANEOUS FORWARD CHARACTERISTICS**



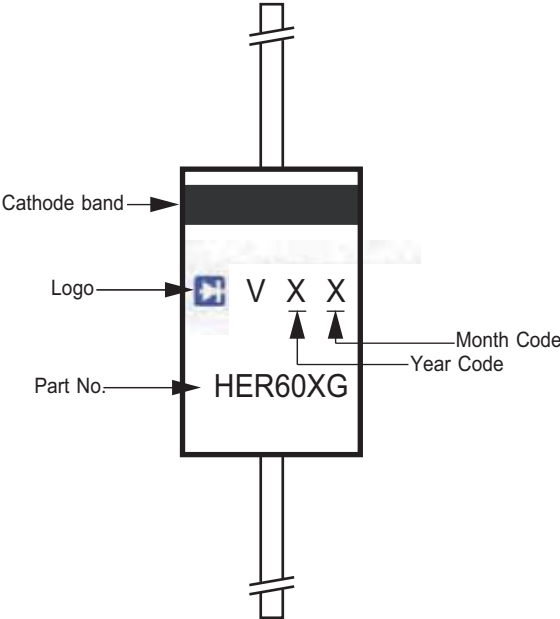
**FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**



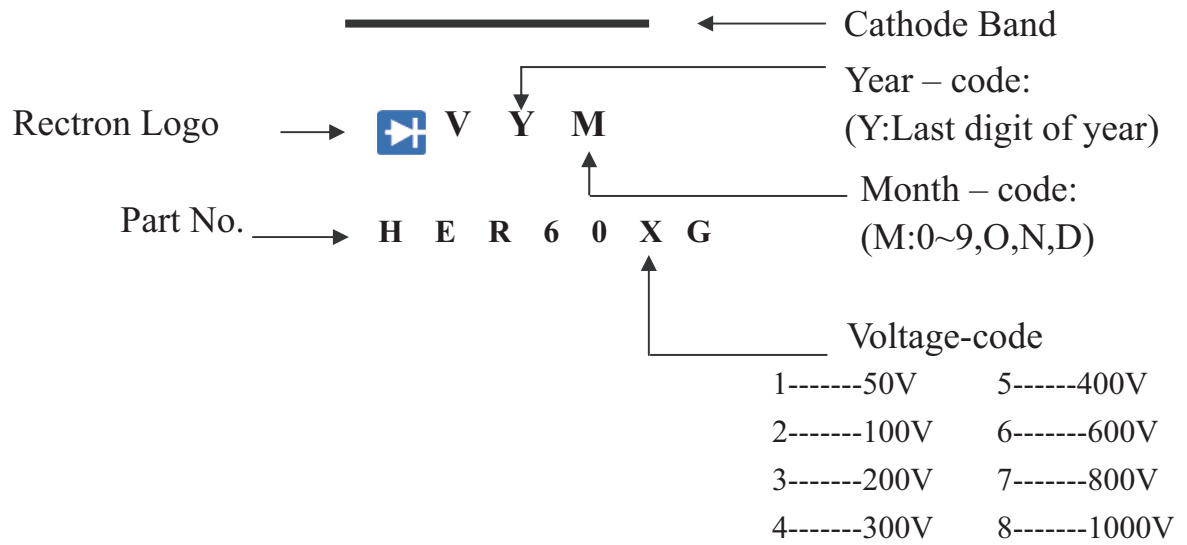
**FIG.6 TYPICAL JUNCTION CAPACITANCE**

# THE MARKING OF HER60XG

## Marking Description:



## Marking Description



## PACKAGING OF DIODE AND BRIDGE RECTIFIERS

### BULK PACK

PACKAGE	PACKING CODE	EA PER BOX	INNER BOX SIZE (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
R-6/R-7	-B	200	300*73*40	347*320*271	4,800	12.93/14.57

### REEL PACK

PACKAGE	PACKING CODE	EA PER REEL	EA PER INNER BOX	COMPONENT SPACE (mm)	TAPE SPACE (mm)	REEL DIA (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
R-6/R-7	-T	800	800	9.5	52	330	355*350*335	3,200	9.72/9.91

### AMMO PACK

PACKAGE	PACKING CODE	REEL ( EA )	COMPONENT SPACE(mm)	TAPE SPACE (mm)	BOX SIZE (mm)	CARTON SIZE(mm)	CARTON ( EA )	GROSS WEIGHT (Kg)
R-6/R-7	-F	300	9.5	52	255*73*100	400*268*225	3,000	8.5/8.7

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