



HIGH EFFICIENCY GLASS PASSIVATED RECTIFIER

HER501G THRU HER508G

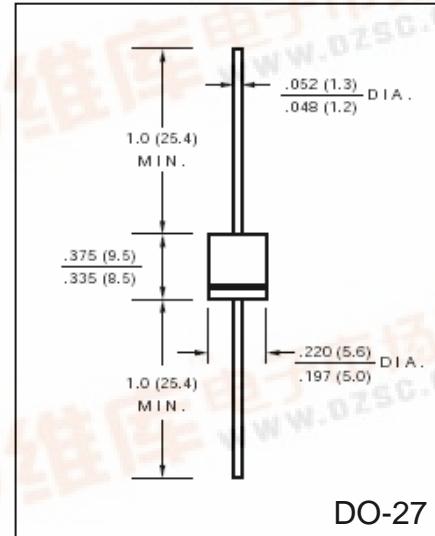
VOLTAGE RANGE
CURRENT50 to 1000 Volts
5.0 Ampere

FEATURES

- Glass passivated chip junction
- Low power loss, high efficiency
- Low Leakage
- High speed switching
- High Surge Capacity
- High Temperature soldering guaranteed:
260°C / 10 second, 0.375" (9.5mm) lead length

MECHANICAL DATA

- Case: Transfer molded plastic
- Epoxy: UL94V – 0 rate flame retardant
- Polarity: Color Band denotes cathode end
- Lead: Plated axial lead, solderable per MIL – STD-202E Method 208C
- Mounting Position: Any
- Weight: 0.042 ounce, 1.19 gram



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%

	SYMBOLS	HER 501G	HER 502G	HER 503G	HER 504G	HER 505G	HER 506G	HER 507G	HER 508G	UNIT				
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, 0.375" (9.5mm) lead length at $T_A = 50^\circ C$	$I_{(AV)}$	5.0							Amps					
Peak Forward Surge Current 8.3mS single half sine wave superimposed on rated load (JEDEC method)	I_{FSM}	200				150				Amps				
Maximum Instantaneous Forward Voltage @ 5.0A	V_F	1.0		1.3		1.5		1.7		Volts				
Maximum DC Reverse Current at Rated $T_A = 25^\circ C$ DC Blocking Voltage per element $T_A = 125^\circ C$	I_R	10 500							μA					
Maximum Full Load Reverse Current, Full Cycle average 0.375" (9.5mm) lead length at $T_L = 55^\circ C$	$I_{R(AV)}$	150							μA					
Maximum Reverse Recovery Time Test conditions $I_F = 0.5A$, $I_R = 1.0A$, $I_{RR} = 0.25A$	t_{rr}	50				70				nS				
Typical Junction Capacitance (Measured at 1.0MHz and applied reverse voltage of 4.0V)	C_J	70				50				pF				
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	20							$^\circ C/W$					
Operating Junction Temperature	T_J	(-55 to +150)							$^\circ C$					
Storage Temperature Range	T_{STG}	(-55 to +150)							$^\circ C$					



RATINGS AND CHARACTERISTIC CURVES HER501G THRU HER508G

FIG.1—TYPICAL FORWARD CURRENT DERATING CURVE

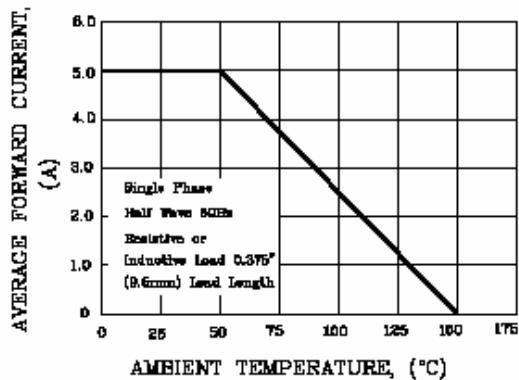


FIG.3—TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

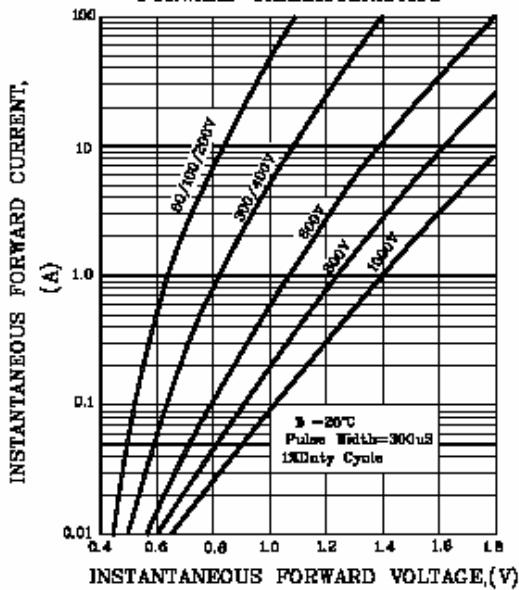


FIG.5—TYPICAL JUNCTION CAPACITANCE

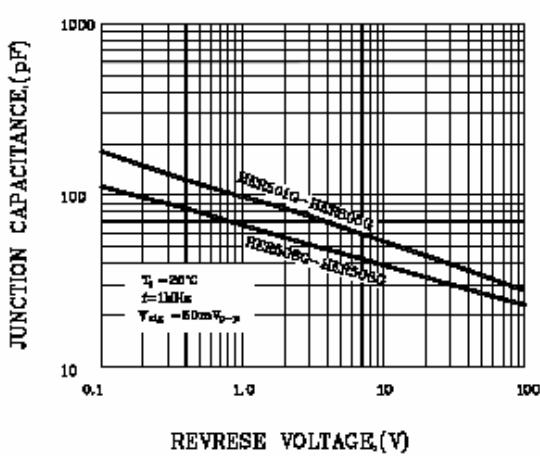


FIG.2—MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

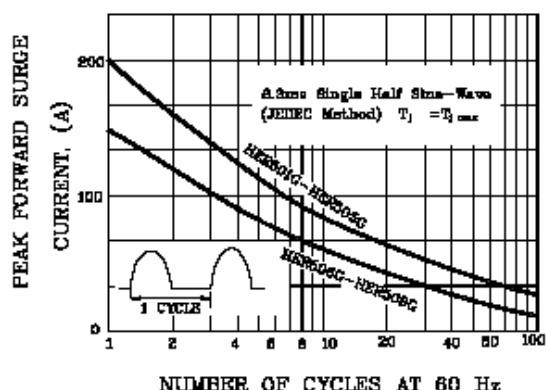


FIG.4—TYPICAL REVERSE CHARACTERISTICS

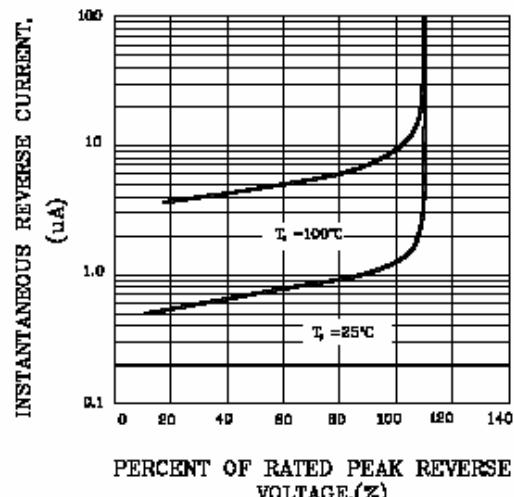
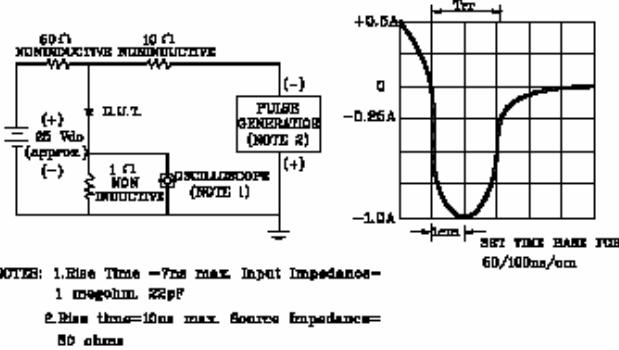


FIG.6—TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES: 1. Rise Time = 7π max. Input Impedance = 1 megohm 22pF
 2. Rise time = 10π max. Source Impedance = 50 ohms