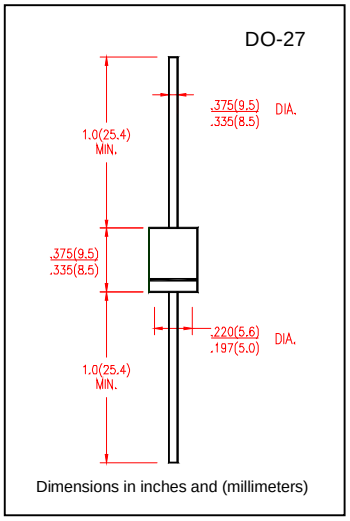
HIGH EFFICIENCY GLASS PASSIVATED RECTIFIER

HER301G THRU HER308G

VOLTAGE RANGE **50 to 1000 Volts**
CURRENT **3.0 Ampere**

FEATURES

- Glass passivated chip junction
- Low power loss, high efficiency
- Low leakage
- High speed switching
- High surge capacity
- High temperature soldering guaranteed
  260℃/10 seconds,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: 0.042ounce, 1.19 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25℃ ambient temperature unless otherwise specified
- Single Phase, half wave, 60Hz, resistive or inductive load
- For capacitive load derate current by 20%

	SYMBOLS	HER 301G	HER 302G	HER 303G	HER 304G	HER 305G	HER 306G	HER 307G	HER 308G	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℃	$I_{(AV)}$	3.0								Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	125								Amps
Maximum Instantaneous Forward Voltage at 3.0A	V_F	1.0			1.3		1.5	1.7		Volts
Maximum DC Reverse Current at rated DC Blocking Voltage at T_A = 25℃	I_R	10								μA
Maximum DC Reverse Current at rated DC Blocking Voltage at T_A = 125℃	I_R	500								μA
Maximum Full Load Reverse Current, full cycle average 0.375″ (9.5mm) lead length at T_L =55℃	$I_{R(AV)}$	150								μA
Maximum Reverse Recovery Time Test conditions I_F =0.5A, I_R =1.0A, I_{RR} =0.25A,	t_{rr}	50					75			nS
Typical Junction Capacitance (NOTE 2)	C_J	70						50		pF
Typical Thermal Resistance (NOTE 1)	$R_{\theta JA}$	20								℃/W
Operating Junction Temperature Range	T_J	(-55 to +150)								℃
Storage Temperature Range	T_{STG}	(-55 to +150)								℃

Notes:

1. Thermal Resistance from Junction to ambient with 0.375″ (9.5mm) lead length, PCB mounted.
2. Measured at 1.0MHz and applied reverse voltage of 4.0V

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RATING AND CHRACTERISTIC CURVES HER301G THRU HER308G

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

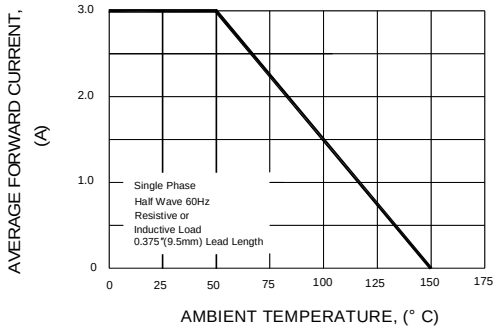


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

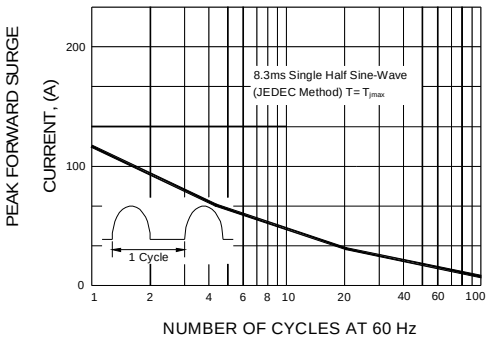


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

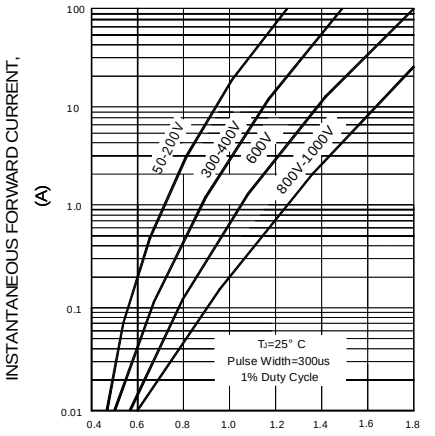


FIG.4-TYPICAL REVERSE CHARACTERISTICS

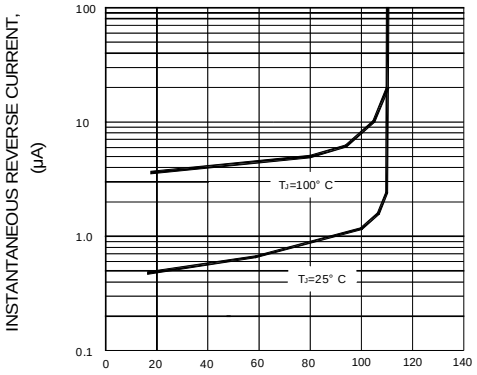
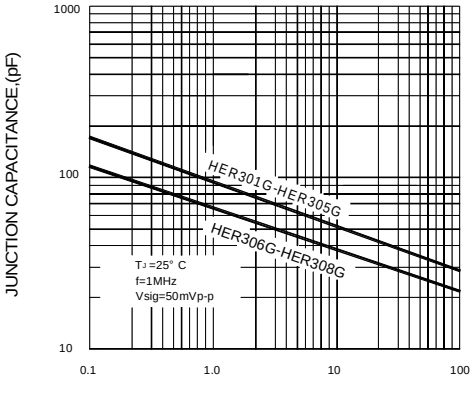
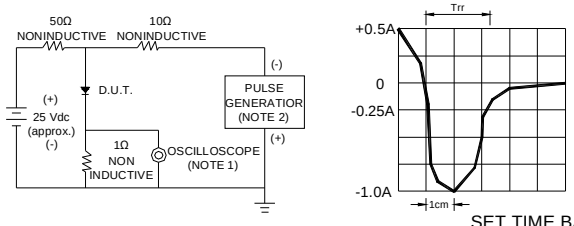


FIG.5-TYPICAL JUNCTION CAPACITANCE



F1G.6-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES : 1.Rise Time=7ns mas. Input Impedance= 1 magohm. 22pF
2.Rise time=10ns max. Source Impedance= 50 ohms

SET TIME BASE FOR 50/100ns/cm