FUKUCOM COMPANY LTD.
福 靈 有 限 公 司
FLAT P, 3/F., EVEREST INDUSTRIAL CENTRE, 396 KWUN TONG ROAD.
KWUN TONG, KOWLOON, HONG KONG.
TEL: 2790-0314 FAX: 2790-0206

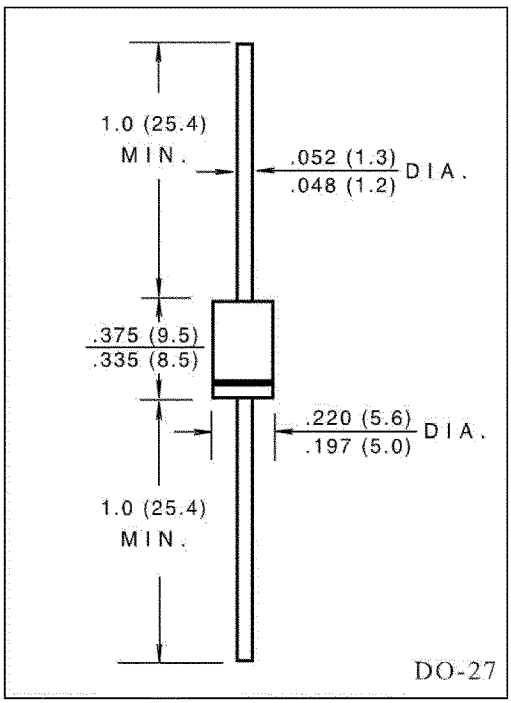
HIGH EFFICIENCY RECTIFIER

HER501 THRU HER507

VOLTAGE RANGE 50 **to** 800 **Volts**
CURRENT 5.0 **Ampere**

FEATURES

- Low power loss, high efficiency.
- Low leakage
- High speed switching.
- High current capability.
- High surge capability
- High temperature soldering guaranteed: 260℃/10 seconds, 0.375" (9.5mm)lead length at 5 lbs. (2.3kg) tension



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, 1.19gram

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 501	HER 502	HER 503	HER 504	HER 505	HER 506	HER 507	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	300	400	600	800	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	210	280	420	560	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	300	400	600	800	Volts
Maximum Average Forward Rectified Current, 0.375" (9.5mm) Lead length at T_A = 50℃	$I_{(AV)}$	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 Drop at 5.0 A	V_F	1.0			1.3		1.5	17	Volts
Maximum DC Reverse Current at rated DC blocking voltage T_A = 25℃	I_R	10.0							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 (Note 1)	t_{rr}	50					70		nS
Typical Junction Capacitance (Note 2)	C_J	70					50		pF
Typical Thermal Resistance(Note 3)	$R_{\theta JA}$	20							℃/W
Operating and Storage Temperature Range	T_J, T_{STG}	(-65 to +150)							℃

NOTES:

1.Test condition: I_F = 0.5A, I_R = 1.0A, I_{RR}=0.25A

2.Measured at 1 MHz and applied reverse of 4.0 volts.

3.Thermal resistance from junction to ambient with 0.375" (9.5mm) lead length, P.C.B. mounted.

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RATINGS AND CHARACTERISTIC CURVES HER501 THRU HER507

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

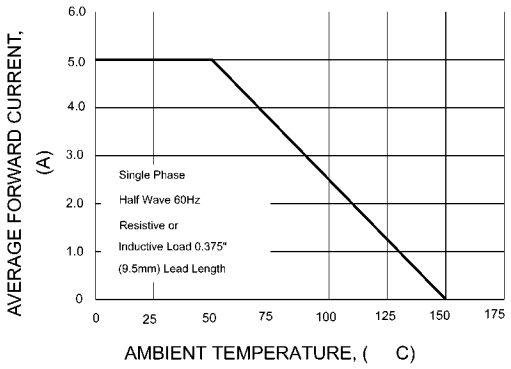


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

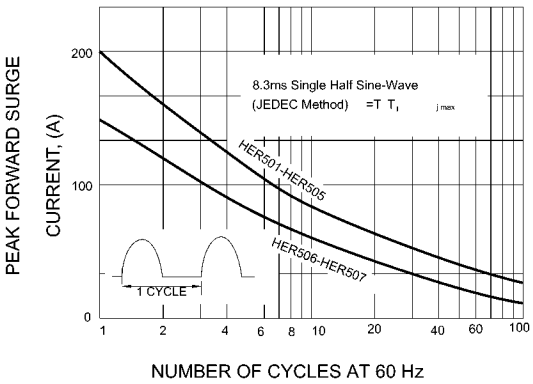


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

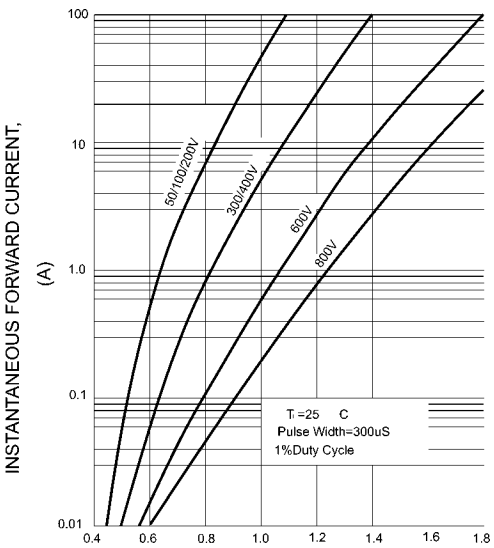


FIG.4-TYPICAL REVERSE CHARACTERISTICS

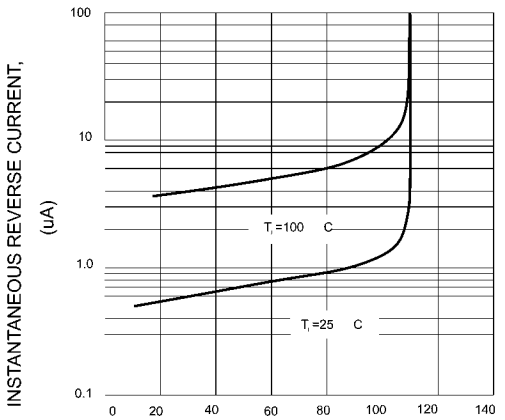


FIG.5-TYPICAL JUNCTION CAPACITANCE

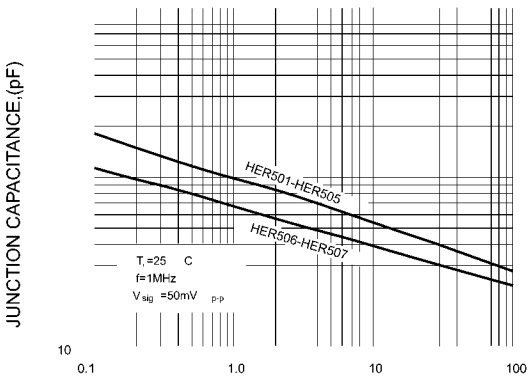
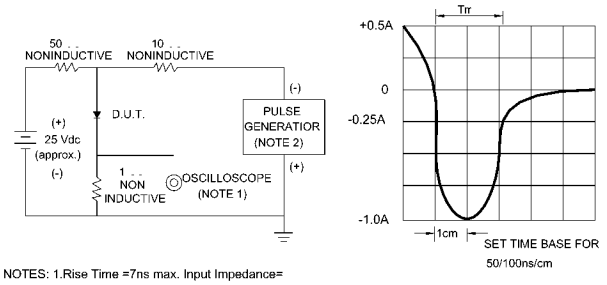


FIG.6-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES: 1.Rise Time =7ns max. Input Impedance= 1 megohm. 22pF

2.Rise time=10ns max. Source Impedance= 50 ohms