



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



RECTIFIER SPECIALISTS

HER501  
THRU  
HER508

TECHNICAL SPECIFICATIONS OF HIGH EFFICIENCY RECTIFIER

VOLTAGE RANGE - 50 to 1000 Volts

CURRENT - 5.0 Amperes

FEATURES

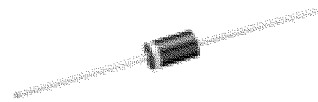
- \* Low power loss, high efficiency
- \* Low leakage
- \* Low forward voltage drop
- \* High current capability
- \* High speed switching
- \* High reliability
- \* High current surge

MECHANICAL DATA

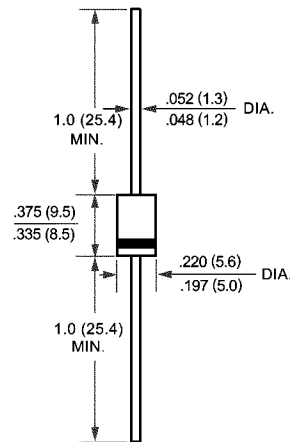
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Lead: MIL-STD-202E, Method 208 guaranteed
- \* Polarity: Color band denotes cathode end
- \* Mounting position: Any
- \* Weight: 1.20 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.  
Single phase, half wave, 60 Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.



DO-27



	SYMBOL	HER501	HER502	HER503	HER504	HER505	HER506	HER507	HER508	UNITS
Maximum Recurrent 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 at $T_A = 50^\circ C$	$I_o$	5.0								Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	150								Amps
Maximum Instantaneous Forward Voltage at 5.0A DC	$V_F$	1.0		1.3		1.7				Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_A = 25^\circ C$	$I_R$	10								$\mu$ Amps
Maximum Full Load Reverse Current Average, Full Cycle .375*(9.5mm) lead length at $T_L = 55^\circ C$		150								$\mu$ Amps
Maximum Reverse Recovery Time (Note 1)	$t_{rr}$	50				75				nSec
Typical Junction Capacitance (Note 2)	$C_J$	70				50				pF
Operating and Storage Temperature Range	$T_J, T_{STG}$	-65 to + 150								$^\circ C$

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

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



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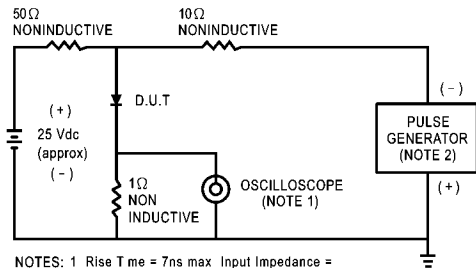
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RATING AND CHARACTERISTIC CURVES (HER501 THRU HER508)

FIG. 1 - 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.

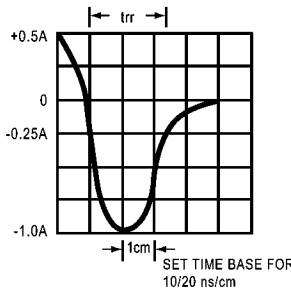


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

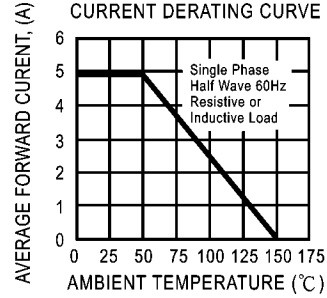


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

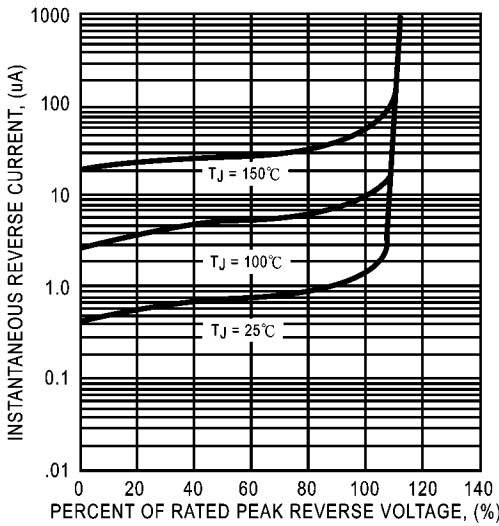


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

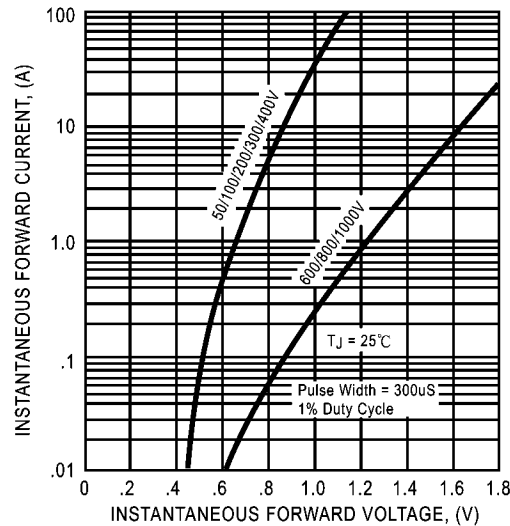


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

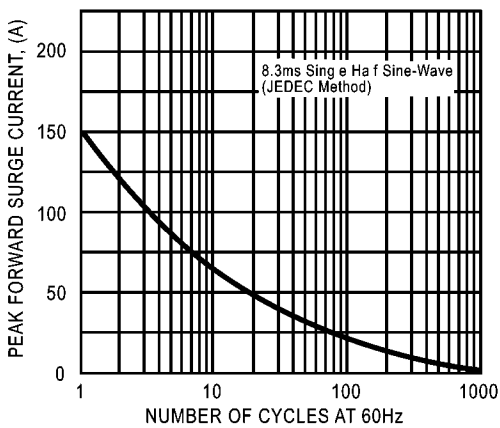


FIG. 6 - TYPICAL JUNCTION CAPACITANCE

