

PFS

HIGH EFFICIENCY RECTIFIER

HER501 THRU HER508

**VOLTAGE RANGE
CURRENT**

**50 to 800 Volts
5.0Ampere**

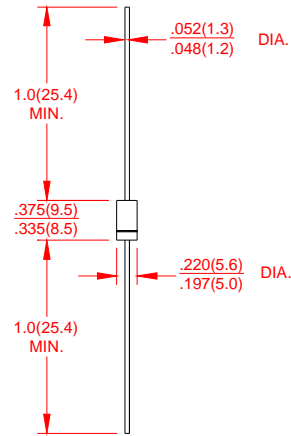
DO-27

FEATURES

- Low coat construction
- Fast switching for high efficiency.
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed:
260°C/10 secods/.375”(9.5mm)lead length at 5 lbs(2.3kg) tension

MECHANICAL DATA

- Case: Transfer molded plastic
- Epoxy: UL94V-O 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 grams



Dimensions in inches and (millimeters)

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 501	HER 502	HER 503	HER 504	HER 505	HER 506	HER 507	UNITS	
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°C	I _(AV)	5.0							Amp	
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 @ 3.0A	V _F	1.0			1.3		1.5	1.7	Volts	
Maximum DC Reverse Current at Rated DC Blocking Voltage	I _R	10							μA	
		500								
Maximum Full Load Recovery Current,full cycle average 0.375”(9.5mm)lead length at TL=55°C	IR _(AV)	150							μA	
Maximum Reverse Recovery Time(NOTE 1)	trr	70					100			ns
Typical Thermal Resistance (NOTE 2)	C _J	70					50			PF
Typical Thermal Resistance(NOTE 3)	R _{θJA}	20							°C/W	
Operating Junction Temperature Range	T _J , T _{STG}	(-55 to +150)							°C	

Notes:

- 1 Test Condition:IF=0.5A,IR=1.0A,IRR=0.25A
2. Measured at 1.0 MHz and applied reverse of 4.0 V
- 3 Thermal resistance from junction to ambient with .375”(9.5mm)lead length, P.C.B. mounted. .

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RATING AND CHARACTERISTIC CURVES HER501 THRU HER507

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

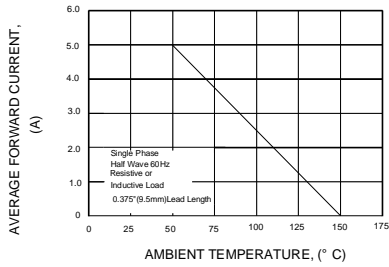


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

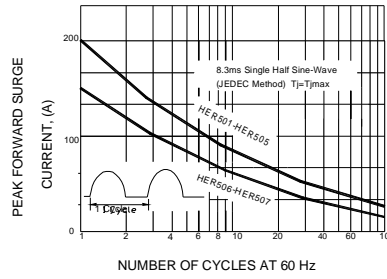


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

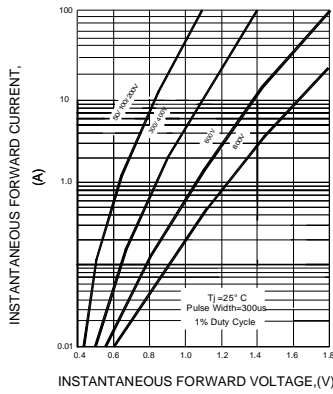


FIG.4-TYPICAL REVERSE CHARACTERISTICS

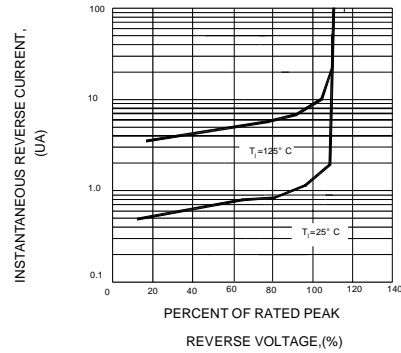


FIG.5-TYPICAL JUNCTION CAPACITANCE

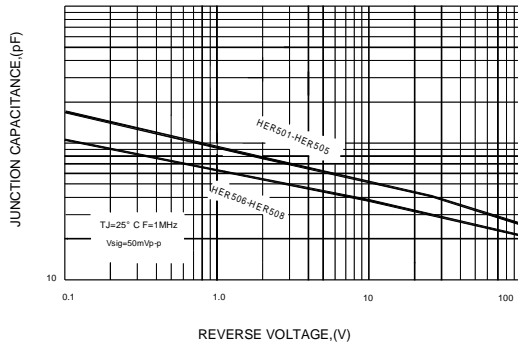


FIG. 6-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

