



HER3001PT THRU HER3008PT

30.0 AMPS. Glass Passivated High Efficient Rectifiers



Voltage Range
50 to 1000 Volts
Current
30.0 Amperes

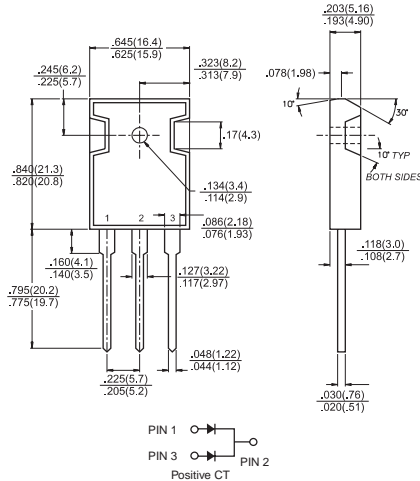
Features

- ✦ Dual rectifier construction, positive center-tap
- ✦ Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- ✦ Glass passivated chip junctions
- ✦ Superfast recovery time, high voltage
- ✦ Low forward voltage, high current capability
- ✦ Low thermal resistance
- ✦ Low power loss, high efficiency
- ✦ High temperature soldering guaranteed: 260°C, .16"(4.06mm) from case for 10 seconds

Mechanical Data

- ✦ Cases: TO-3P/TO-247AD molded plastic
- ✦ Terminals: Leads solderable per MIL-STD-750. Method 2026
- ✦ Polarity: As marked
- ✦ Mounting position: Any
- ✦ Mounting torque: 10in-lbs. Max.
- ✦ Weight: 0.2 ounce, 5.6 grams

TO-3P/TO-247AD



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating 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%

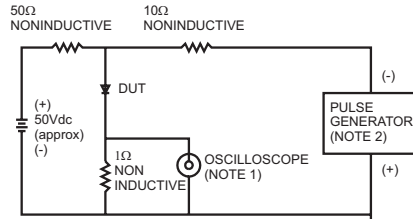
Type Number	Symbol	HER 3001PT	HER 3002PT	HER 3003PT	HER 3004PT	HER 3005PT	HER 3006PT	HER 3007PT	HER 3008PT	Units	
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	300	400	600	800	1000	V	
Maximum RMS Voltage	V_{RMS}	35	70	140	210	280	420	560	700	V	
Maximum DC Blocking Voltage	V_{DC}	50	100	200	300	400	600	800	1000	V	
Maximum Average Forward Rectified Current @ $T_c = 100^\circ\text{C}$	$I_{(AV)}$	30.0								A	
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	300								A	
Maximum Instantaneous Forward Voltage @ 15.0A	V_F	1.0			1.3		1.7			V	
Maximum DC Reverse Current @ $T_c = 25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_c = 125^\circ\text{C}$	I_R	10.0 500								uA uA	
Maximum Reverse Recovery Time (Note 2) @ $T_j = 25^\circ\text{C}$	T_{rr}	50					80				nS
Typical Junction Capacitance (Note 1)	C_j	175					145				pF
Operating Temperature Range	T_j	-55 to +150								°C	
Storage Temperature Range	T_{STG}	-55 to +150								°C	

Notes: 1. Measured at 1 MHz and Applied Reverse Voltage of 4.0 Volts.

2. Reverse Recovery Test Conditions: $I_F = 0.5A$, $I_R = 1.0A$, Recover to 0.25A.

RATINGS AND CHARACTERISTIC CURVES (HER3001PT THRU HER3008PT)

FIG. 1- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



NOTES: 1. Rise Time=7ns max. Input Impedance=1 megohm 22pf
2. Rise Time=10ns max. Source Impedance=50 ohms

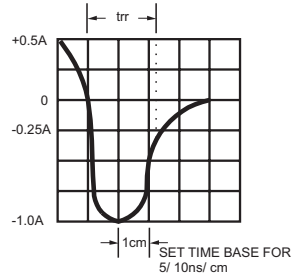


FIG. 2- MAXIMUM FORWARD CURRENT DERATING CURVE

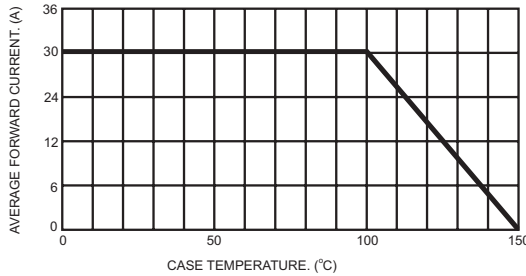


FIG. 3- TYPICAL REVERSE CHARACTERISTICS PER LEG

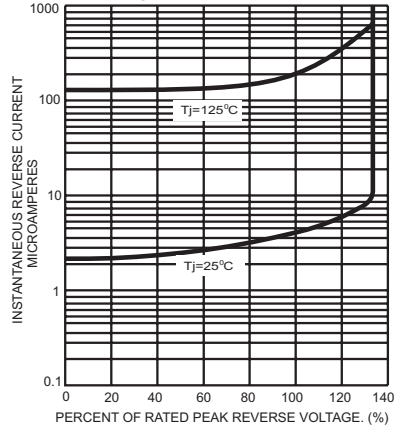


FIG. 4- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

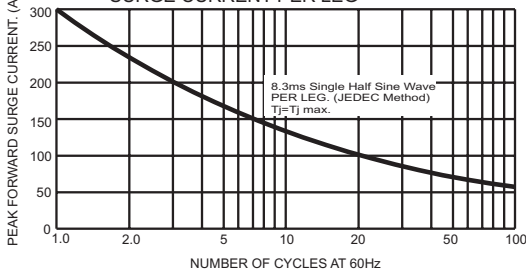


FIG. 6- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

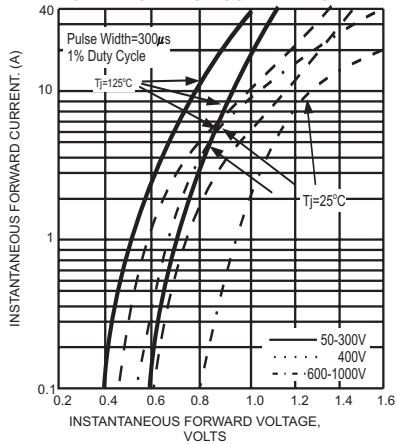
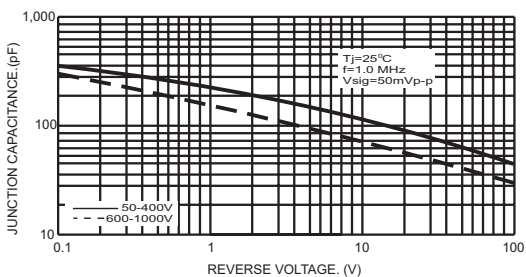


FIG. 5- TYPICAL JUNCTION CAPACITANCE PER LEG



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