

# HER3001PT THRU HER3008PT

## GLASS PASSIVATED HIGH EFFICIENCY RECTIFIER



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**REVERSE VOLTAGE:** 50 to 1000 VOLTS  
**FORWARD CURRENT:** 30.0 AMPERE

### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound.
- Dual rectifier construction, positive center-tap
- Low forward voltage, high current capability
- Low thermal resistance
- Ultra fast recovery times, high voltage.
- Low power loss, high efficiency

### MECHANICAL DATA

Case: Molded plastic, TO-3P/TO-247AD

Epoxy: UL 94V-O rate flame retardant

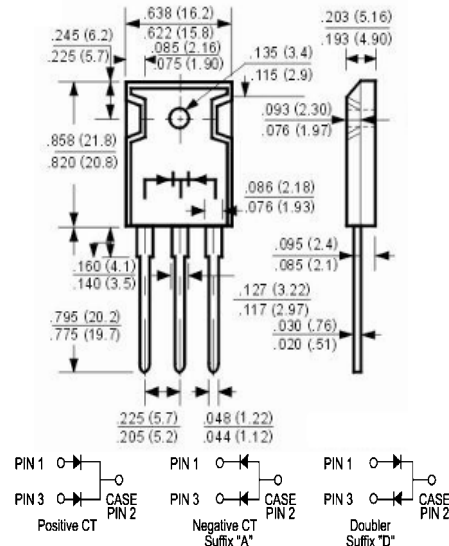
Terminals: Leads solderable per MIL-STD-202 method 208 guaranteed

Polarity: As marked

Mounting position: Any

Weight: 0.2ounce, 5.6gram

### TO-3P/TO-247AD



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	HER3001PT	HER3002PT	HER3003PT	HER3004PT	HER3005PT	HER3006PT	HER3007PT	HER3008PT	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 $T_C=100^\circ\text{C}$	$I_{(AV)}$	30.0								Amp	
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	300								Amp	
Maximum Forward Voltage at 15.0A and $T_A=25^\circ\text{C}$	$V_F$	1.0			1.3		1.7			Volts	
Maximum Reverse Current at Rated DC Blocking Voltage at $T_A=25^\circ\text{C}$ and $T_A=125^\circ\text{C}$	$I_R$	10.0				250					uAmp
Typical Junction Capacitance (Note 1)	$C_J$	175					145				pF
Maximum Reverse Recovery Time (Note 2)	$T_{RR}$	50					80				nS
Operating and Storage Temperature Range	$T_J, T_{stg}$	-55 to +150								°C	

### NOTES:

1- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.

2- Reverse Recovery Test Conditions:  $I_F=5A$ ,  $I_R=1A$ ,  $I_{RR}=.25A$ .

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### RATINGS AND CHARACTERISTIC CURVES

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

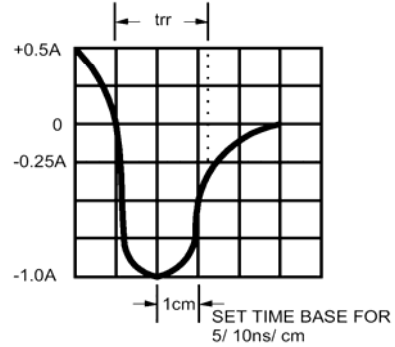
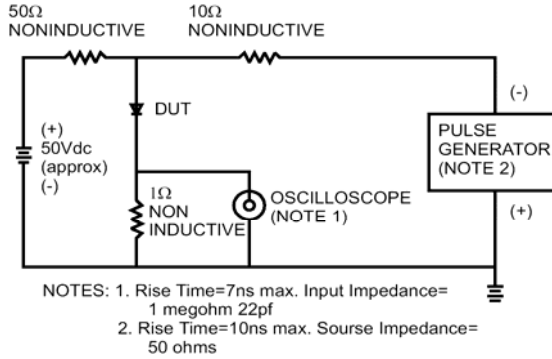


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

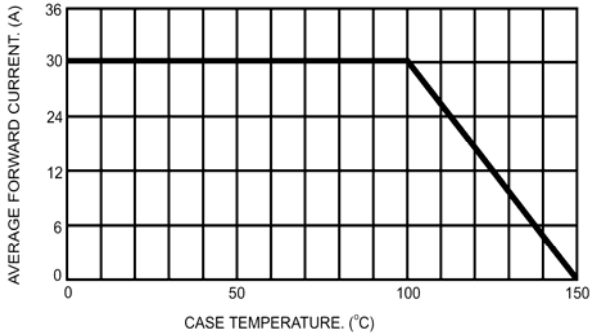


FIG.3- TYPICAL REVERSE CHARACTERISTICS PER LEG

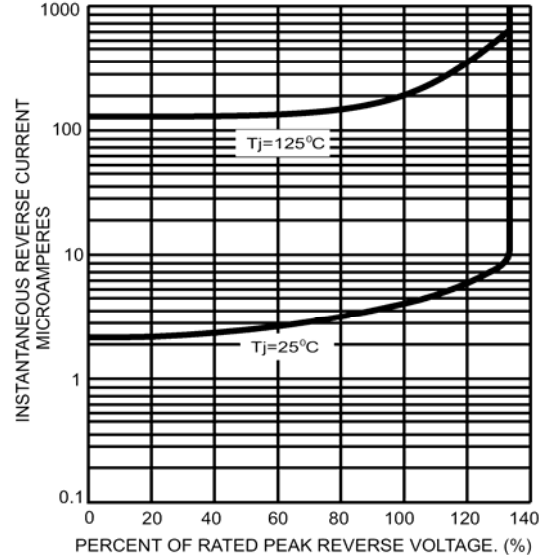


FIG.4- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

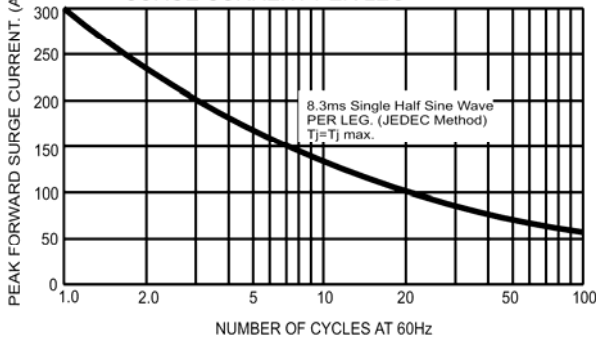


FIG.6- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

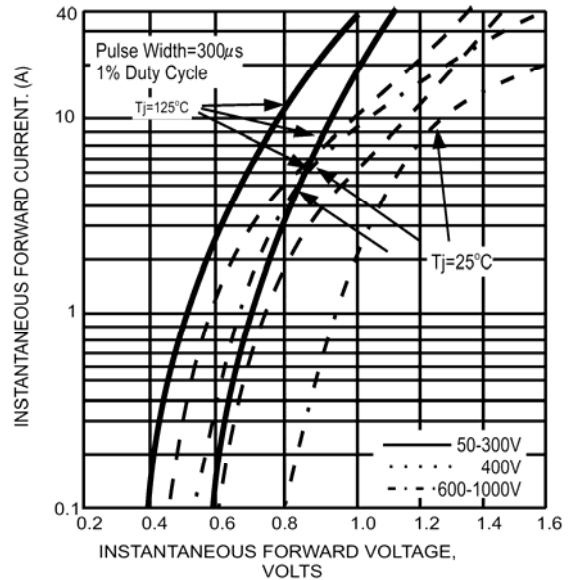


FIG.5- TYPICAL JUNCTION CAPACITANCE PER LEG

