



**DC COMPONENTS CO., LTD.**

RECTIFIER SPECIALISTS

**HER3001  
THRU  
HER3005**

**TECHNICAL SPECIFICATIONS OF HIGH EFFICIENCY RECTIFIER**  
VOLTAGE RANGE - 50 to 400 Volts      CURRENT - 30 Amperes

**FEATURES**

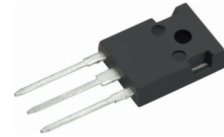
- \* Low power loss, high efficiency
- \* Low forward voltage drop
- \* Low thermal resistance
- \* High current capability
- \* High reliability
- \* High surge capability

**MECHANICAL DATA**

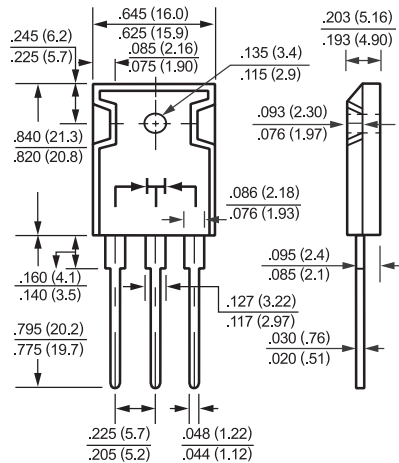
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Lead: MIL-STD-202E, Method 208 guaranteed
- \* Polarity: As marked
- \* Mounting position: Any
- \* Weight: 5.60 grams

**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%.



TO-3P



Dimensions in inches and (millimeters)

	SYMBOL	HER3001	HER3002	HER3003	HER3004	HER3005	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	300	400	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	210	280	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	300	400	Volts
Maximum Average Forward Rectified Current at T <sub>c</sub> = 75°C	I <sub>O</sub>	30					Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	400					Amps
Maximum Instantaneous Forward Voltage at 15 0A DC	V <sub>F</sub>	1.1					Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	I <sub>R</sub>	@T <sub>c</sub> = 25°C					uAmps
		@T <sub>c</sub> = 100°C					
Maximum Reverse Recovery Time (Note 1)	t <sub>rr</sub>	60					nSec
Typical Thermal Resistance	R <sub>θJC</sub>	1.0					°C/W
Typical Junction Capacitance (Note 2)	C <sub>J</sub>	125					pF
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to + 150					°C

NOTES : 1. Test Conditions: I<sub>F</sub> = 0.5A, I<sub>R</sub> = 1.0A, I<sub>RR</sub> = 0.25A  
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.  
3. Suffix "A" = Common Anode.

# RATING AND CHARACTERISTIC CURVES (HER3001 THRU HER3005)

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

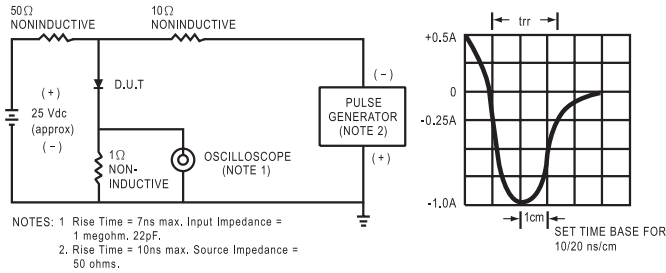


FIG.2 - TYPICAL FORWARD CURRENT DERATING CURVE

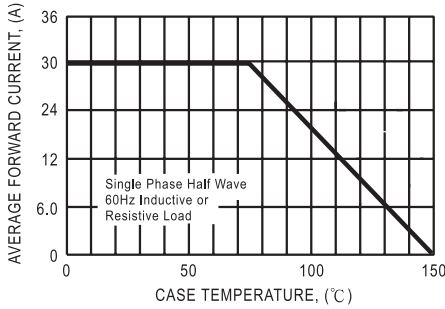


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

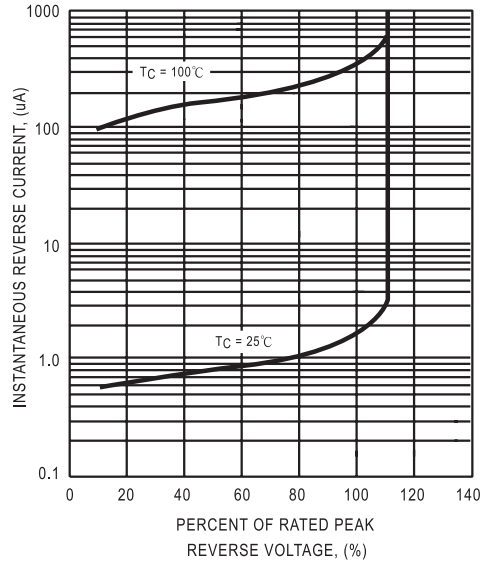


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

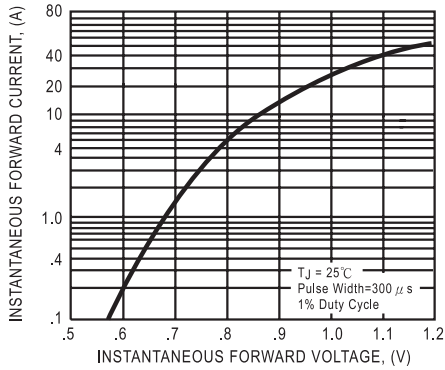


FIG.6 - TYPICAL JUNCTION CAPACITANCE

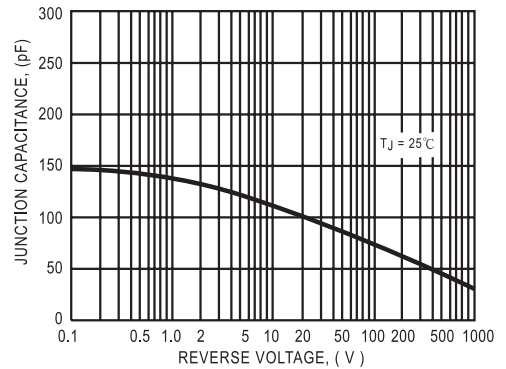
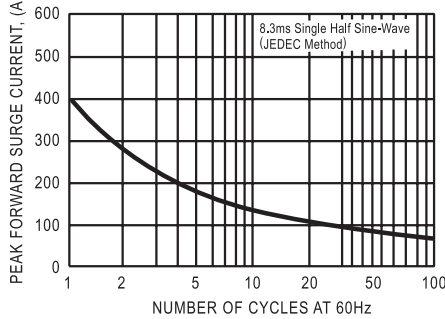


FIG.5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



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