



**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**

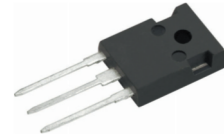
- \* Low power loss, high efficiency
- \* Low forward voltage drop
- \* Low thermal resistance
- \* High current capability
- \* High reliability
- \* High surge capability

**MECHANICAL DATA**

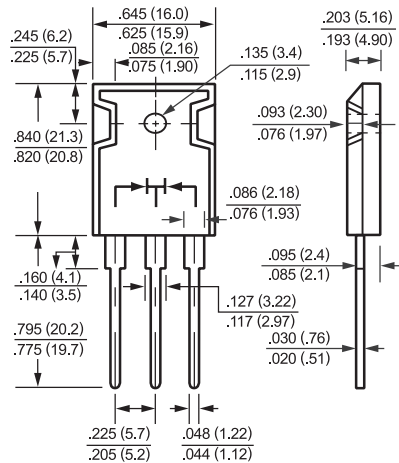
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Lead: MIL-STD-202E, Method 208 guaranteed
- \* Polarity: As marked
- \* Mounting position: Any
- \* Weight: 5.60 grams

**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	VRRM	50	100	200	300	400	Volts
Maximum RMS Voltage	VRMS	35	70	140	210	280	Volts
Maximum DC Blocking Voltage	VDC	50	100	200	300	400	Volts
Maximum Average Forward Rectified Current at Tc = 75°C	Io	30					Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	400					Amps
Maximum Instantaneous Forward Voltage at 15 0A DC	VF	1.1					Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	Ir	@Tc = 25°C	10				uAmps
		@Tc = 100°C	150				
Maximum Reverse Recovery Time (Note 1)	trr	60					nSec
Typical Thermal Resistance	RθJC	1.0					°C/W
Typical Junction Capacitance (Note 2)	Cj	125					pF
Operating and Storage Temperature Range	Tj, TSTG	-65 to + 150					°C

NOTES : 1. Test Conditions: IF = 0.5A, IR = 1.0A, IRR = 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

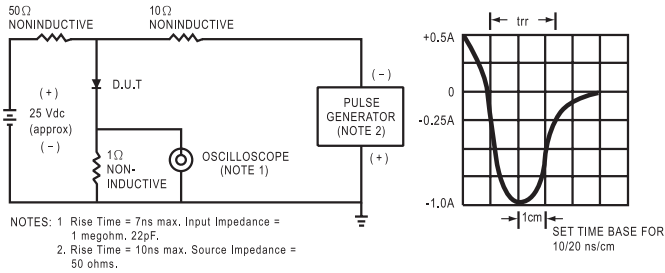


FIG.2 - TYPICAL FORWARD CURRENT DERATING CURVE

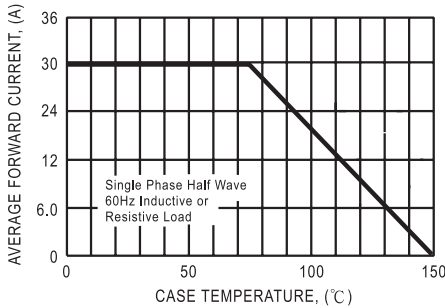


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

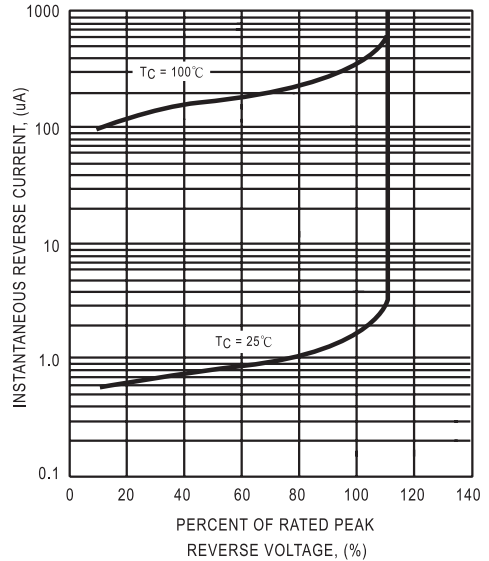


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

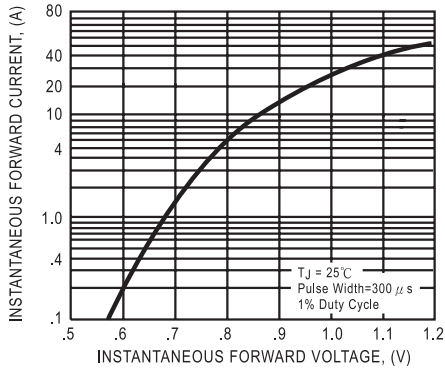


FIG.6 - TYPICAL JUNCTION CAPACITANCE

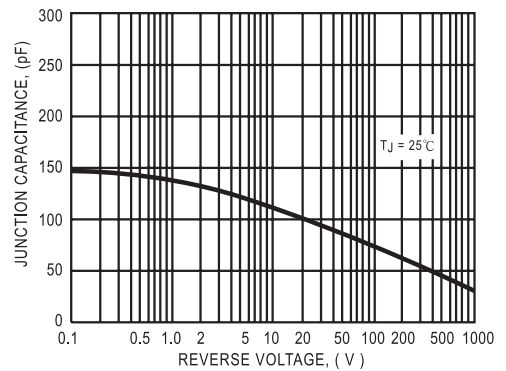
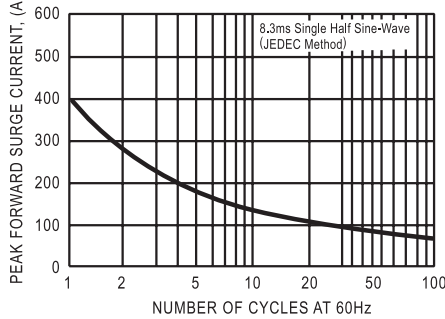


FIG.5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



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