



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

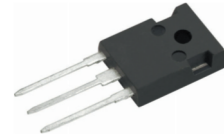
- * Low power loss, high efficiency
- * Low forward voltage drop
- * Low thermal resistance
- * High current capability
- * High reliability
- * High surge capability

MECHANICAL DATA

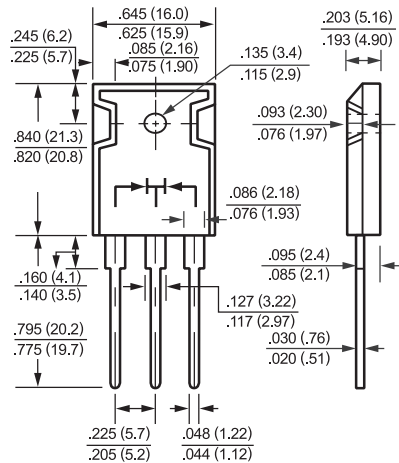
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: MIL-STD-202E, Method 208 guaranteed
- * Polarity: As marked
- * Mounting position: Any
- * Weight: 5.60 grams

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 _{RRM}	50	100	200	300	400	Volts
Maximum RMS Voltage	V _{RMS}	35	70	140	210	280	Volts
Maximum DC Blocking Voltage	V _{DC}	50	100	200	300	400	Volts
Maximum Average Forward Rectified Current at T _c = 75°C	I _O	30					Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	400					Amps
Maximum Instantaneous Forward Voltage at 15 0A DC	V _F	1.1					Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	I _R	@ T _c = 25°C	10				uAmps
		@ T _c = 100°C	150				
Maximum Reverse Recovery Time (Note 1)	t _{rr}	60					nSec
Typical Thermal Resistance	R _{θJC}	1.0					°C/W
Typical Junction Capacitance (Note 2)	C _J	125					pF
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to + 150					°C

NOTES : 1. Test Conditions: I_F = 0.5A, I_R = 1.0A, I_{RR} = 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

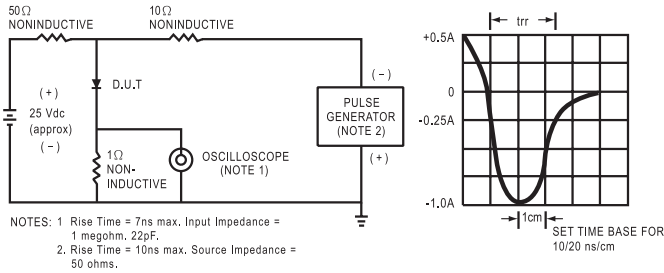


FIG.2 - TYPICAL FORWARD CURRENT DERATING CURVE

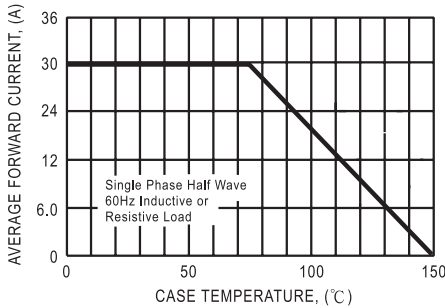


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

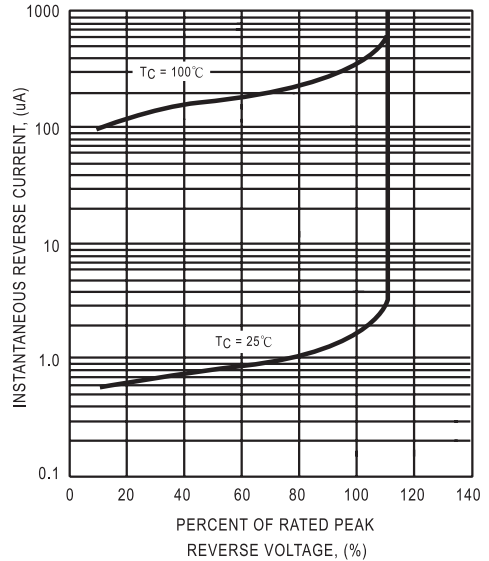


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

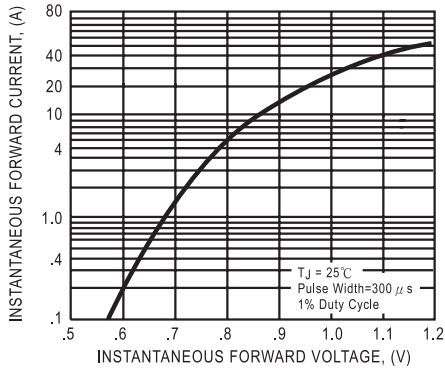


FIG.6 - TYPICAL JUNCTION CAPACITANCE

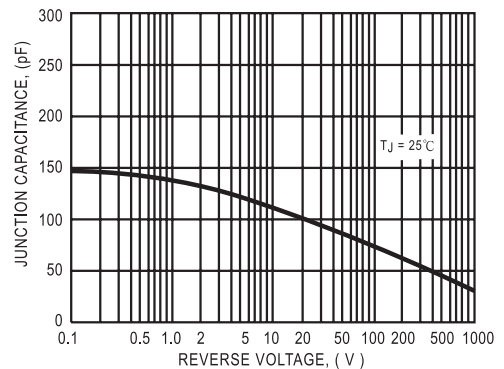
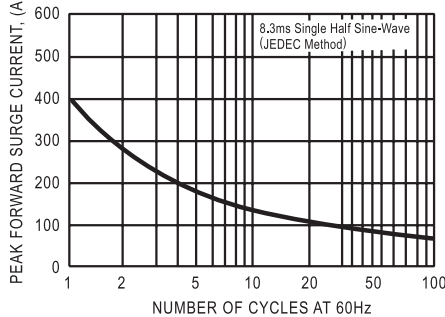


FIG.5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



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