



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

**HER3001
THRU
HER3006**

TECHNICAL SPECIFICATIONS OF HIGH EFFICIENCY RECTIFIER

VOLTAGE RANGE - 50 to 600 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

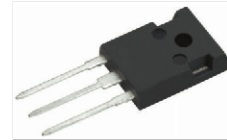
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: MIL-STD-202E, Method 208 guaranteed
- * Polarity: As marked
- * Mounting position: Any
- * Weight: 5.60 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

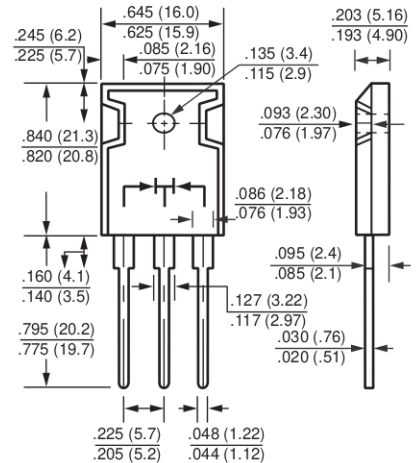
Ratings at 25 °C ambient temperature unless otherwise specified.

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	HER3006	UNITS
Maximum Recurrent Peak Reverse Voltage		V _{RRM}	50	100	200	300	400	600	Volts
Maximum RMS Voltage		V _{RMS}	35	70	140	210	280	420	Volts
Maximum DC Blocking Voltage		V _{DC}	50	100	200	300	400	600	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}	250			200			Amps
Maximum Instantaneous Forward Voltage at 15.0A DC		V _F	1.0			1.3		1.7	Volts
Maximum DC Reverse Current	@ T _C = 25°C	I _R	10						μAmps
at Rated DC Blocking Voltage	@ T _C = 100°C		500						μAmps
Maximum Reverse Recovery Time (Note 1)		t _{rr}	50			75		100	nSec
Typical Junction Capacitance (Note 2)		C _J	250			150		120	pF
Operating and Storage Temperature Range		T _J , T _{STG}	-65 to +150						°C

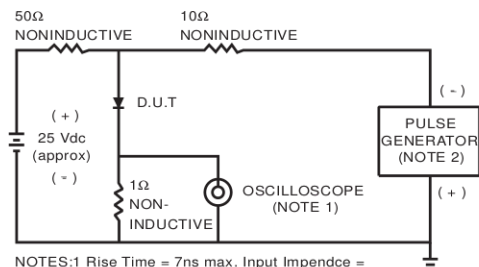
NOTES: 1. Test Conditions: I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A

2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

3. Suffix "A" = Common Anode.

RATING AND CHARACTERISTIC CURVES (HER3001 THRU HER3006)

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



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

FIG.2- TYPICAL FORWARD CURRENT DERATING CURVE

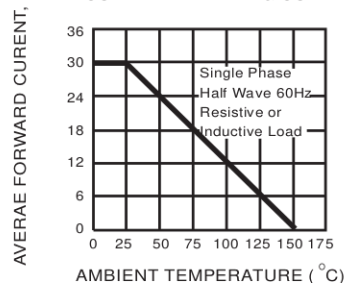


FIG.3- TYPICAL REVERSE CHARACTERISTICS

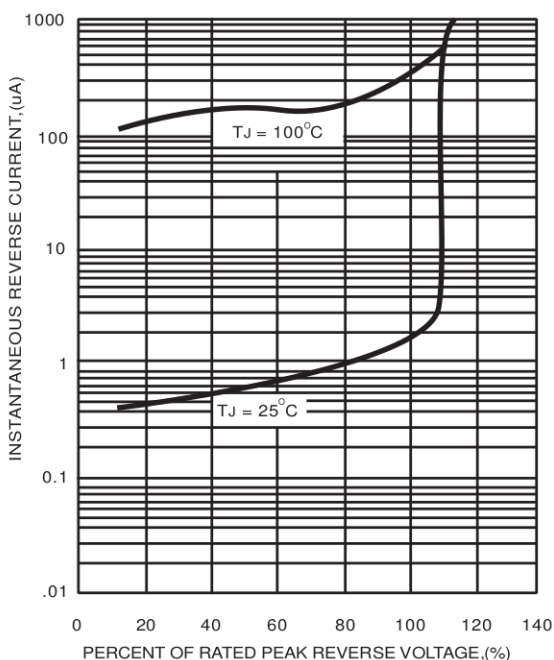


FIG.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

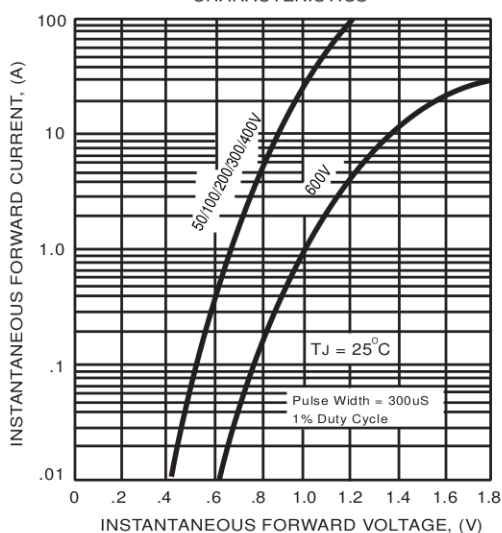


FIG.5- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

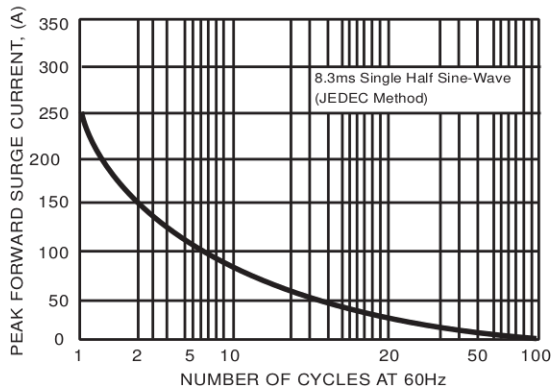
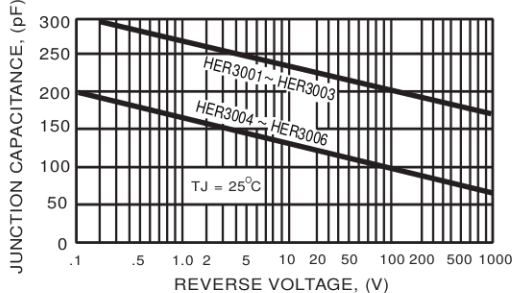


FIG.6- TYPICAL JUNCTION CAPACITANCE



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