



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

**HER1601
THRU
HER1605**

TECHNICAL SPECIFICATIONS OF HIGH EFFICIENCY RECTIFIER
VOLTAGE RANGE - 50 to 400 Volts CURRENT - 16 Amperes

FEATURES

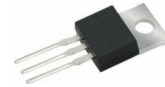
- * Low power loss, high efficiency
- * Low forward voltage drop
- * Low thermal resistance
- * High current capability
- * High speed switching
- * High surge capability
- * High reliability

MECHANICAL DATA

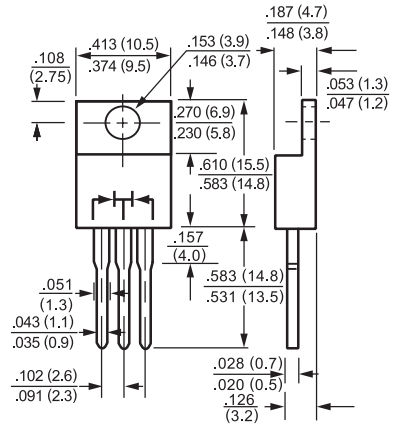
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: MIL-STD-202E, Method 208 guaranteed
- * Polarity: As marked
- * Mounting position: Any
- * Weight: 2.24 grams

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-220



Dimensions in inches and (millimeters)

	SYMBOL	HER1601	HER1602	HER1603	HER1604	HER1605	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	16					Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	300					Amps
Maximum Instantaneous Forward Voltage at 8.0A DC	V _F	1.1					Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	@T _c = 25°C	10					uAmps
	@T _c = 100°C	150					
Maximum Reverse Recovery Time (Note 1)	t _{rr}	60					nSec
Typical Thermal Resistance	RθJC	2.5					°C/W
Typical Junction Capacitance (Note 2)	C _J	40					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 (HER1601 THRU HER1605)

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

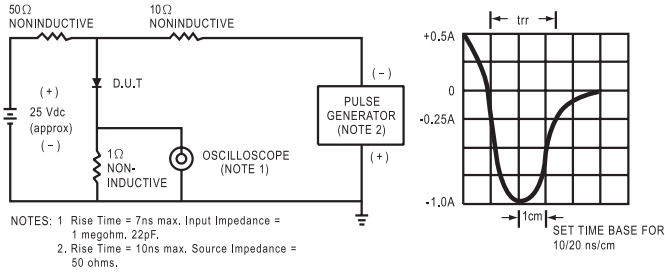


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

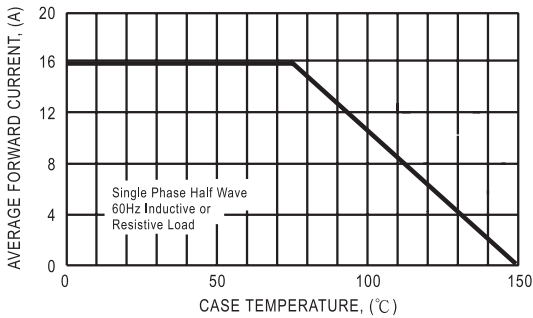


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

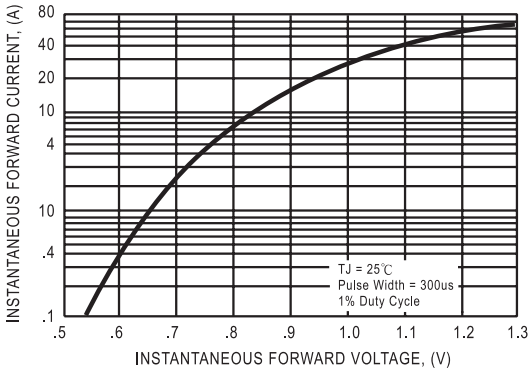


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

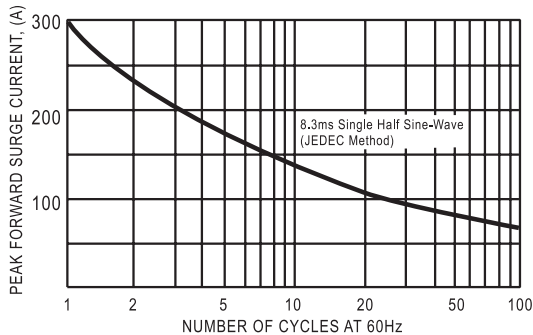


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

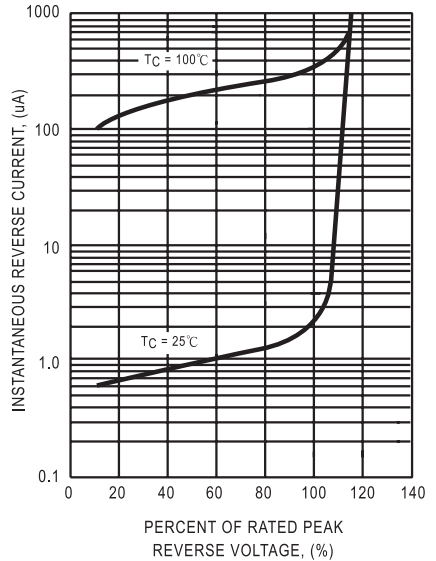
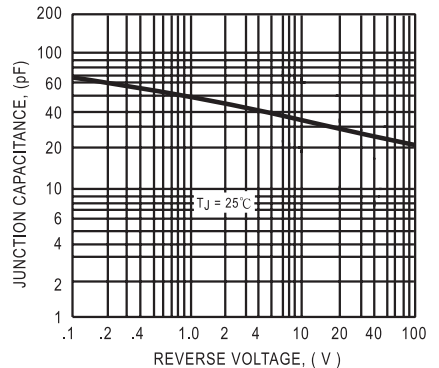


FIG. 6 - TYPICAL JUNCTION CAPACITANCE



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