



**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**

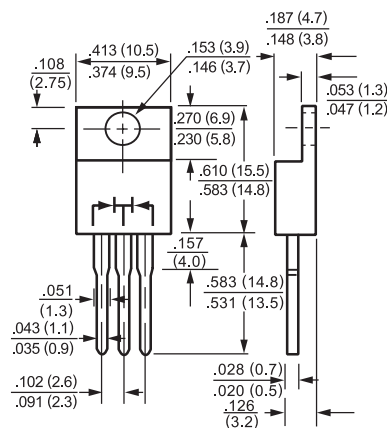
Ratings at 25 °C ambient temperature unless otherwise specified.

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 <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 Tc = 75°C		IO	16					Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)		IFSM	300					Amps
Maximum Instantaneous Forward Voltage at 8.0A DC		VF	1.1					Volts
Maximum DC Reverse Current	@Tc = 25°C	IR	10					uAmps
at Rated DC Blocking Voltage	@Tc = 100°C		150					
Maximum Reverse Recovery Time (Note 1)		trr	60					nSec
Typical Thermal Resistance		RθJC	2.5					°C/W
Typical Junction Capacitance (Note 2)		CJ	40					pF
Operating and Storage Temperature Range		TJ, TSTG	-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 (HER1601 THRU HER1605)

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

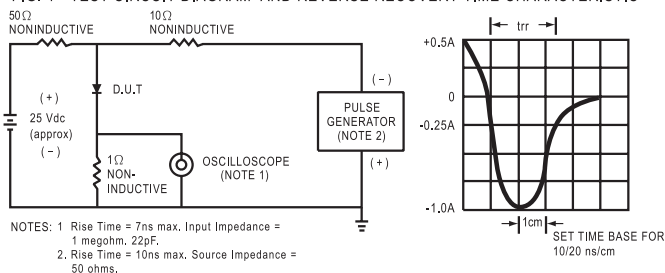


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

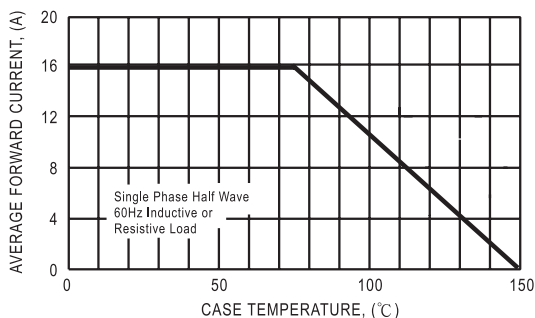


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

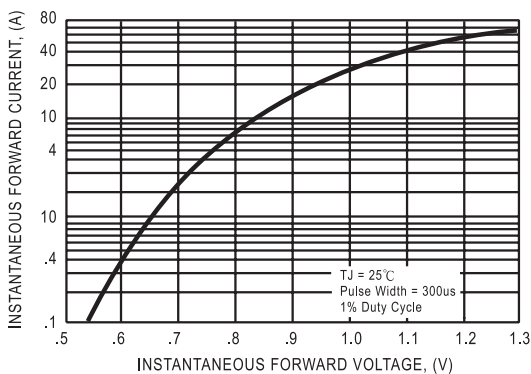


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

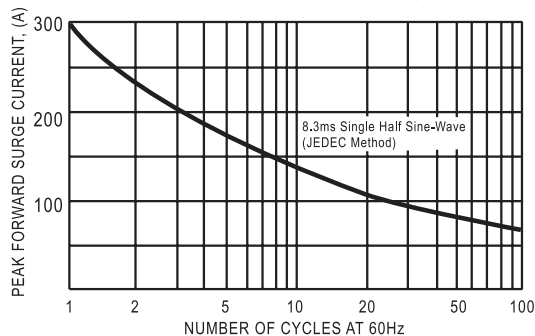


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

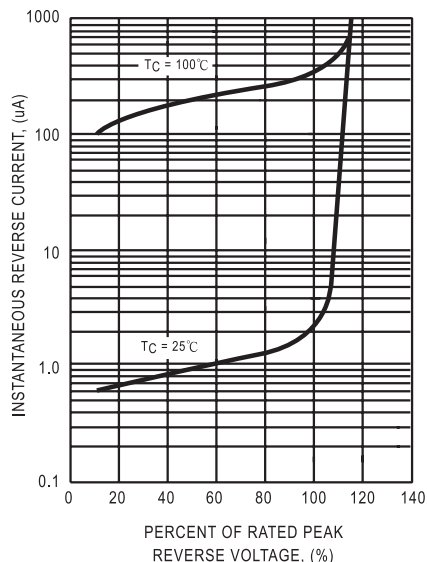
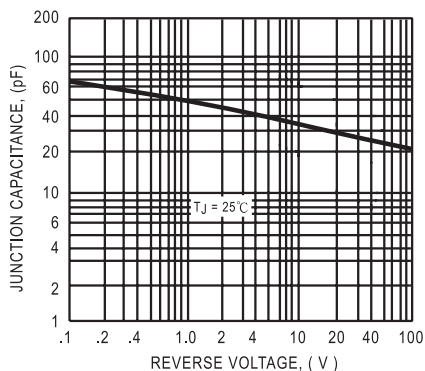


FIG. 6 - TYPICAL JUNCTION CAPACITANCE



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