

HIGH EFFICIENCY RECTIFIER

VOLTAGE RANGE 50 to 400 Volts CURRENT 16.0 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

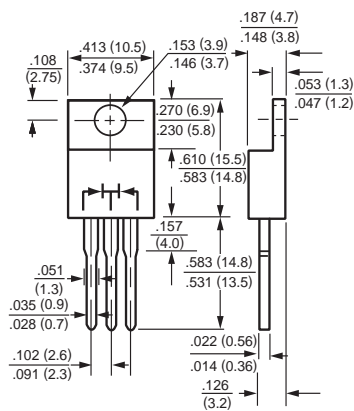
- * Case: TO-220 molded plastic
- * Epoxy: Device has UL flammability classification 94V-O
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any
- * Weight: 2.24 grams
- * Polarity: As marked

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



MAXIMUM RATINGS (At TA = 25°C unless otherwise noted)

RATINGS	SYMBOL	HER1601C	HER1602C	HER1603C	HER1604C	HER1605C	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	16.0					Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM	200					Amps
Typical Thermal Resistance	R θJC	2.5					°C/W
Typical Junction Capacitance (Note 2)	CJ	40					pF
Operating and Storage Temperature Range	TJ, TSTG	-55 to + 150					°C

ELECTRICAL CHARACTERISTICS (At TA = 25°C unless otherwise noted)

CHARACTERISTICS	SYMBOL	HER1601C	HER1602C	HER1603C	HER1604C	HER1605C	UNITS
Maximum Instantaneous Forward Voltage at 8.0A DC	VF	1.0			1.3		Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	IR	10			150		uAmps
Maximum Reverse Recovery Time (Note 1)	trr	50					nSec

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 (HER1601C THRU HER1605C)

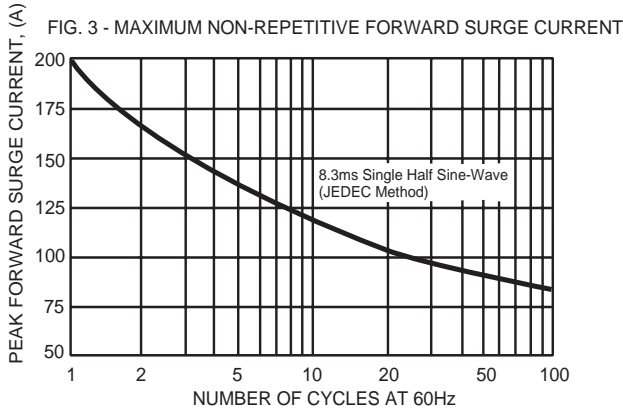
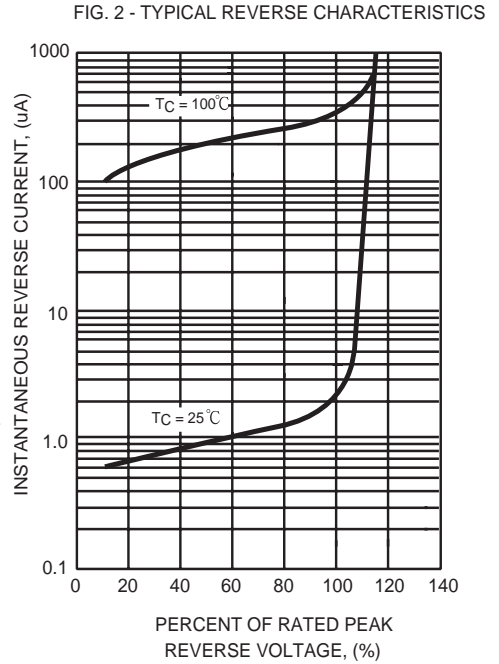
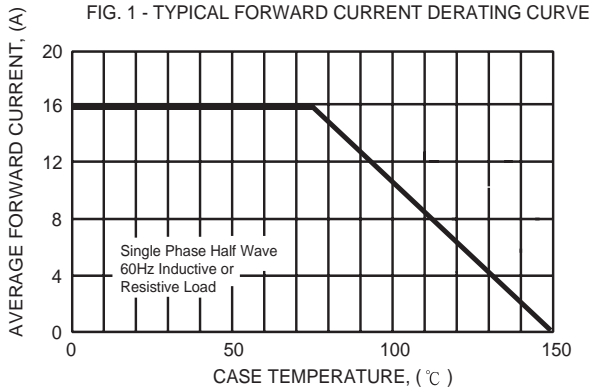


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

