



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

**HER1601
THRU
HER1606**

TECHNICAL SPECIFICATIONS OF HIGH EFFICIENCY RECTIFIER
VOLTAGE RANGE - 50 to 600 Volts **CURRENT - 16 Amperes**

FEATURES

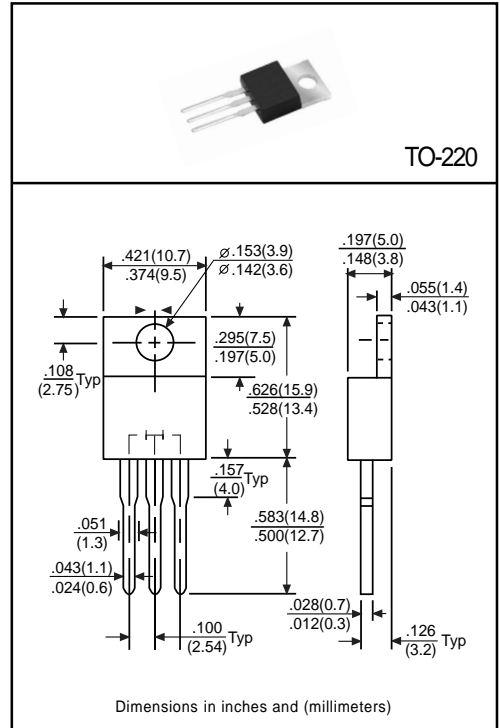
- * Low switching noise
- * Low forward voltage drop
- * High current capability
- * High speed switching
- * High surge capability
- * High reliability

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- * 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, 60Hz, resistive or inductive load.
 For capacitive load, derate current by 20%.



	SYMBOL	HER1601	HER1602	HER1603	HER1604	HER1605	HER1606	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 _A = 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}	150			125			Amps
Maximum Instantaneous Forward Voltage at 16A DC	V _F	1.0			1.3	1.7		Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	@ T _C = 25°C	10						µAmps
	@ 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	120			70			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.
 4. Suffix "F" Stands for "TO-220" package. (e.g.: HER1601F, HER1606F,etc)

RATING AND CHARACTERISTIC CURVES (HER1601 THRU HER1606)

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

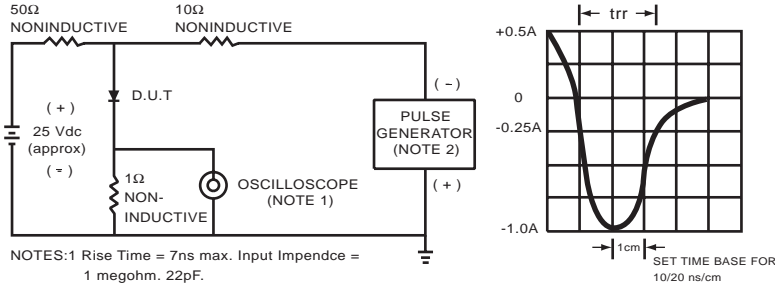


FIG.2- TYPICAL FORWARD CURRENT DERATING CURVE

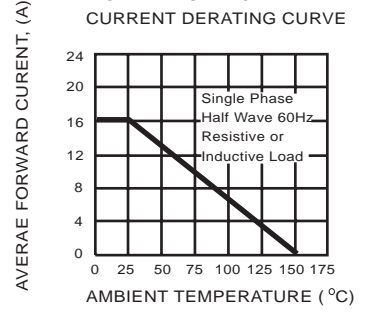


FIG.3- TYPICAL REVERSE CHARACTERISTICS

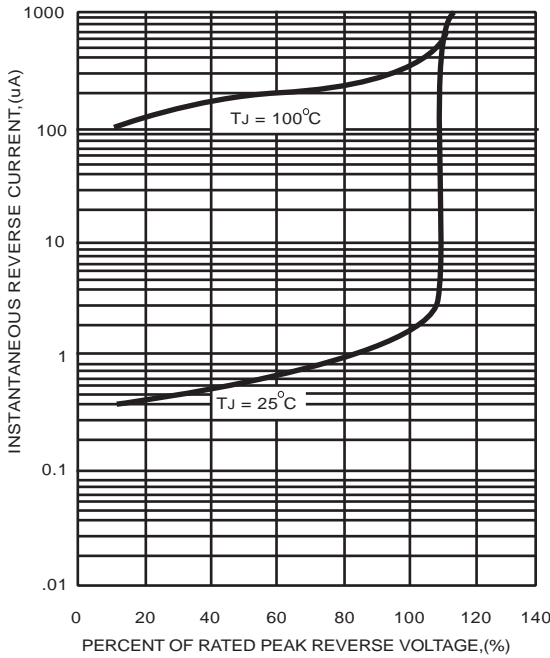


FIG.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

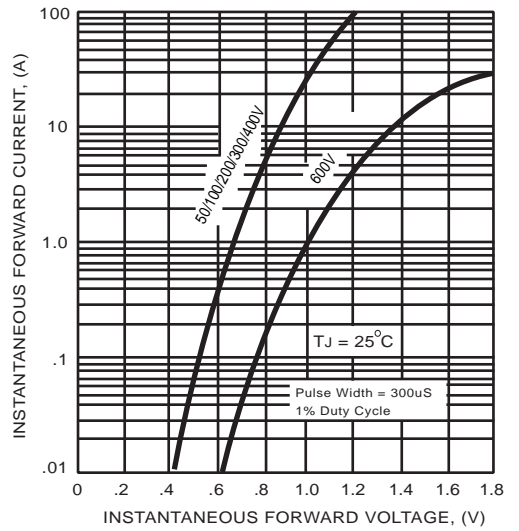


FIG.5- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

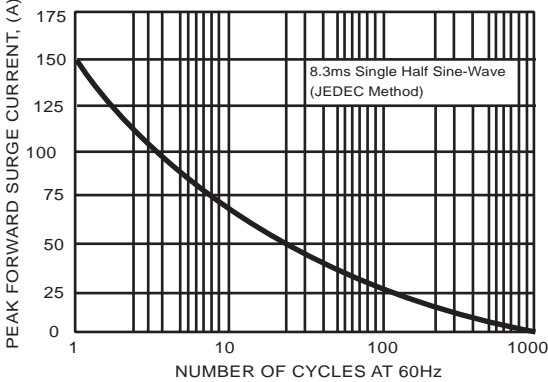
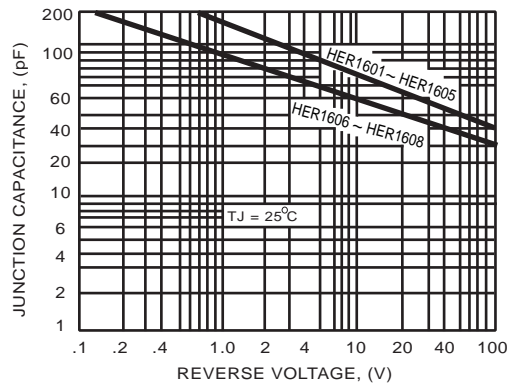


FIG.6- TYPICAL JUNCTION CAPACITANCE



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