



**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**

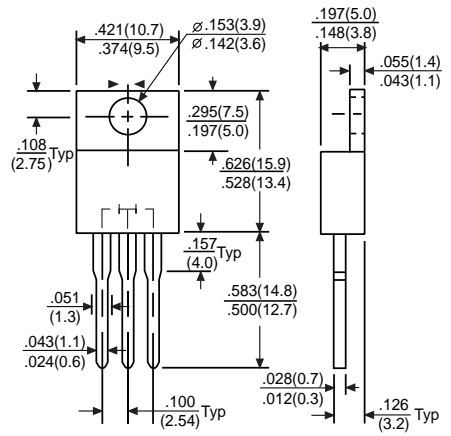
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- \* Mounting position: Any
- \* Weight: 2.24 grams

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Rating 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

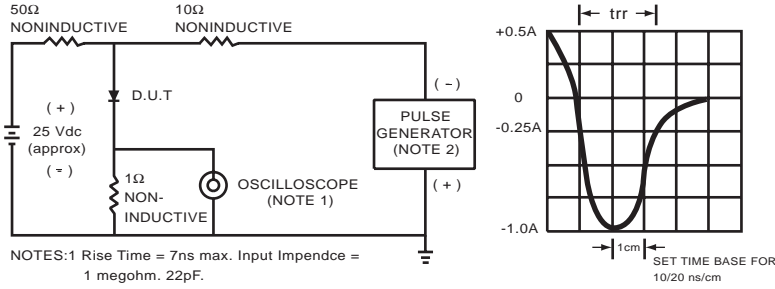


	SYMBOL	HER1601	HER1602	HER1603	HER1604	HER1605	HER1606	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	300	400	600	Volts
Maximum RMS Voltage	VRMS	35	70	140	210	280	420	Volts
Maximum DC Blocking Voltage	VDC	50	100	200	300	400	600	Volts
Maximum Average Forward Rectified Current at TA = 75°C	IO	16						Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	150			125			Amps
Maximum Instantaneous Forward Voltage at 16A DC	VF	1.0			1.3	1.7		Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	IR	@ Tc = 25°C	10					µAmps
		@ Tc = 100°C	500					µAmps
Maximum Reverse Recovery Time (Note 1)	t <sub>rr</sub>	50			75	100		nSec
Typical Junction Capacitance (Note 2)	CJ	120			70			pF
Operating and Storage Temperature Range	TJ, TSTG	-55 to +150						°C

- 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.  
 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



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

FIG.2- TYPICAL FORWARD CURRENT DERATING CURVE

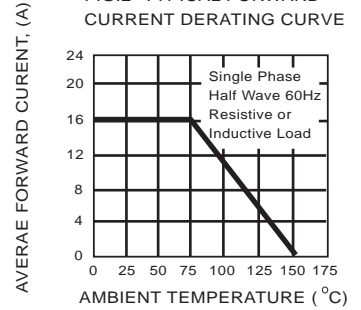


FIG.3- TYPICAL REVERSE CHARACTERISTICS

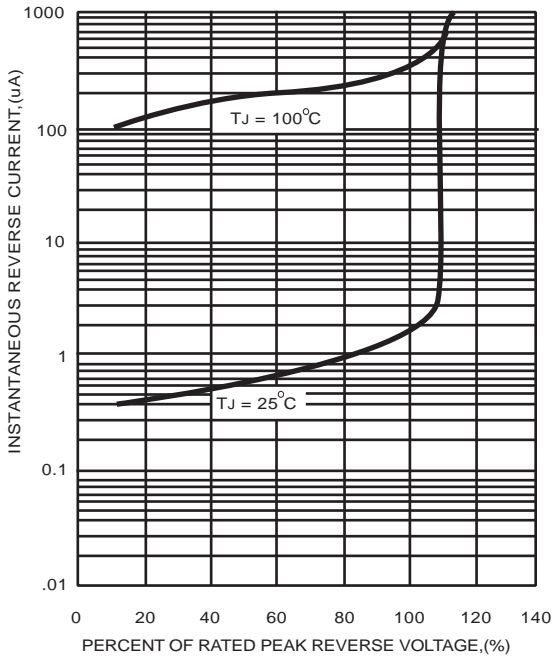


FIG.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

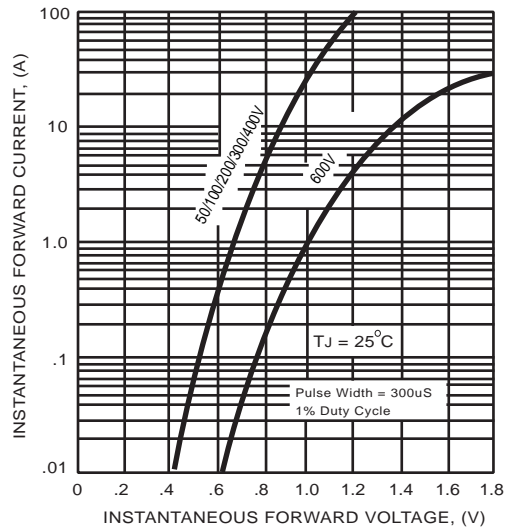


FIG.5- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

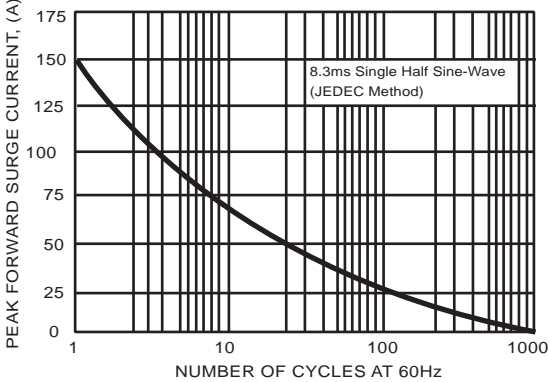
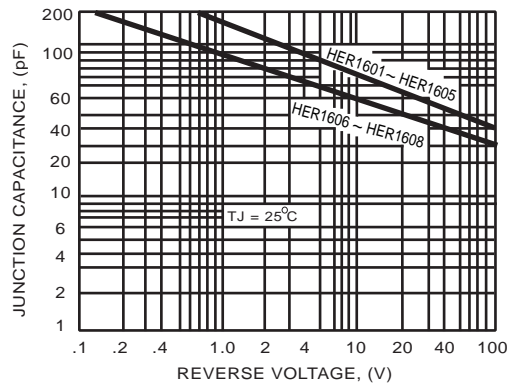


FIG.6- TYPICAL JUNCTION CAPACITANCE



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