DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

HER3001 THRU HER3006

TECHNICAL SPECIFICATIONS OF HIGH EFFICIENCY RECTIFIER

VOLTAGE RANGE - 50 to 600 Volts *CURRENT - 30 Amperes*

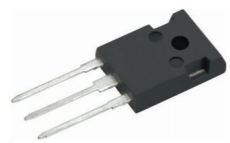
FEATURES

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

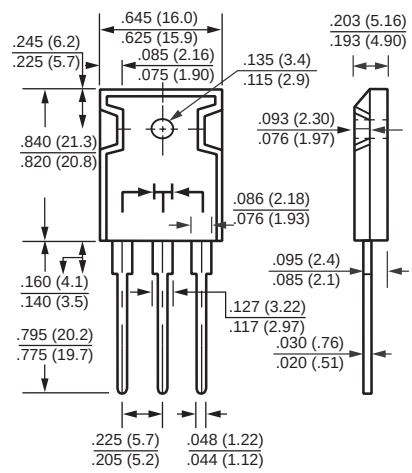
MECHANICAL DATA

* Case: Molded plastic
* Epoxy: UL 94V-0 rate flame retardant
* Lead: MIL-STD-202E, Method 208 guaranteed
* Polarity: As marked
* Mounting position: Any
* Weight: 5.60 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS
Rating at 25°C ambient tempature unless ohterwise specified
Single phase, half wave 60 HZ, resistive or inductive load.
For capacitive load, derate current by 20%.



TO-3P



Dimensions in inches and (millimeters)

		SYMBOL	HER3001	HER3002	HER3003	HER3004	HER3005	HER3006	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_C = 75°C		I_O	30						Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)		I_{FSM}	250			200			Amps
Maximum Instantaneous Forward Voltage at 15.0A DC		V_F	1.0			1.3		1.7	Volts
Maximum DC Reverse Current	@T_C = 25°C	I_R	10						µAmps
at Rated DC Blocking Voltage	@T_C = 100°C		500						µAmps
Maximum Reverse Recovery Time (Note 1)		trr	50			75		100	nSec
Typical Junction Capacitance (Note 2)		C_J	250			150		120	pF
Operating and Storage Temperature Range		T_J, T_{STG}	-55 to +150						°C

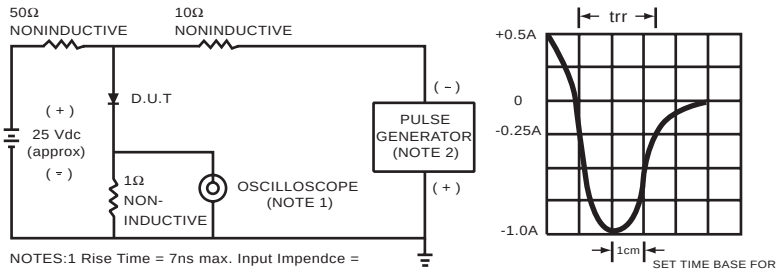
NOTES: 1. Test Conditions: I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A

2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

3. Suffix "A" = Common Anode.

RATING AND CHARACTERISTIC CURVES (HER3001 THRU HER3006)

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



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

FIG.2- TYPICAL FORWARD CURRENT DERATING CURVE

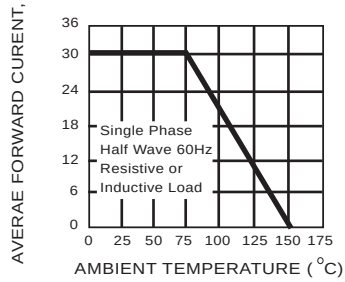


FIG.3- TYPICAL REVERSE CHARACTERISTICS

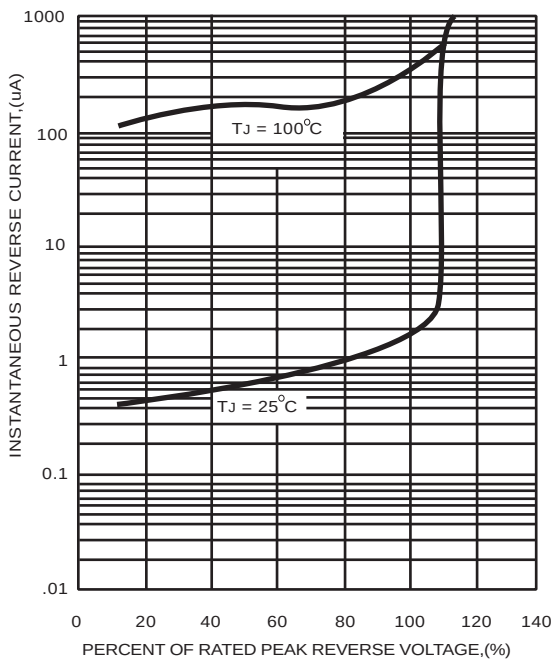


FIG.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

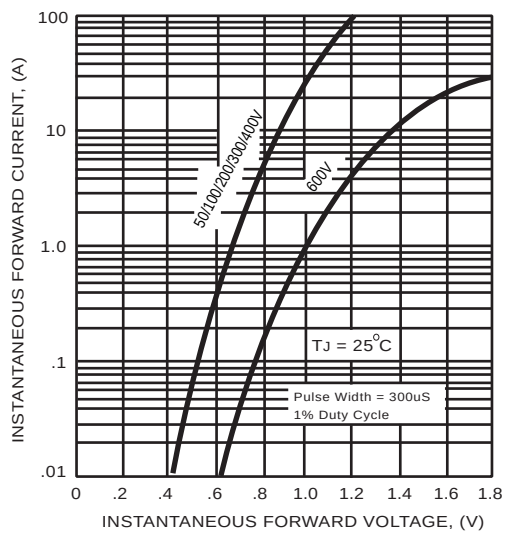


FIG.5- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

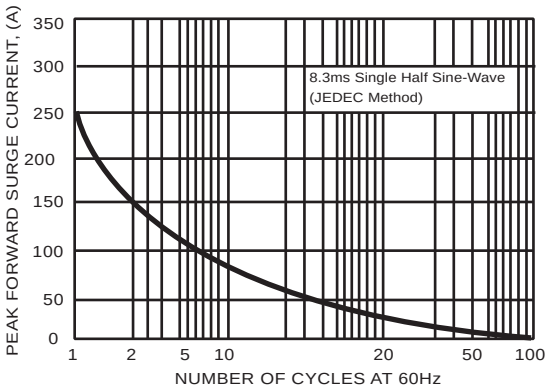
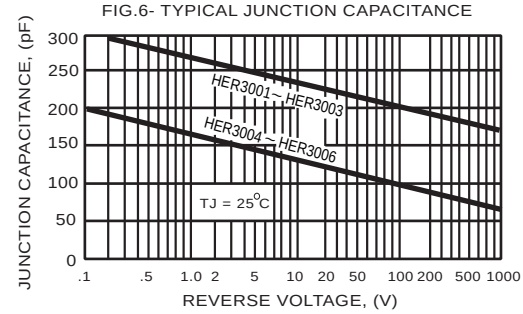


FIG.6- TYPICAL JUNCTION CAPACITANCE



Disclaimer

Any Customer or user of this document or products described herein in such applications shall assume all risks of such use and will agree to hold *DC COMPONENTS* are harmless against all damages.

DC COMPONENTS disclaims any and all liability arising out of the application or use of any product, including consequential or incidental damages. Statement regarding the suitability of products for certain types of applications are based on *DC COMPONENTS* 's knowledge of typical requirements that are often placed on *DC COMPONENTS* products in generic applications. Such statements are not binding statements about the suitability of products for aparticular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application.

DC COMPONENTS reserve the right to make modifications, enhancements, improvements, corrections or other changes without further notice to this document and any product described herein, and disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product. Parameters provided in datasheets and specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. Product specifications do not expand or otherwise modify *DC COMPONENTS* 's terms and conditions of purchase, including but not limited to the warranty expressed therein.

Unless otherwise in writing, *DC COMPONENTS* products are intended for use as general electronic components in standard applications (eg: Consumer electronic, Computer equipment, Office equipment, etc.), and not recommended for use in a high specific application where a failure or malfunction of the device could result in human injury or death (eg: Aerospace equipment, Submarine cables, Combustion equipment, Safety devices, Life support systems, etc.)

Customers using or selling *DC COMPONENTS* products not expressly indicated for use in such applications do so at their own risk. If customer intended to use *DC COMPONENTS* standard quality grade devices for applications not envisioned by *DC COMPONENTS*, please contact our sales representatives in advance.