



# HER151 THRU HER158

## 1.5 AMPS. HIGH EFFICIENCY RECTIFIERS

**VOLTAGE RANGE**  
50 to 1000 Volts  
**CURRENT**  
1.5 Amperes

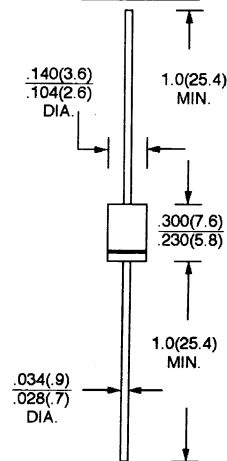
### FEATURES

- \* Low forward voltage drop
- \* High current capability
- \* High reliability
- \* High surge current capability

### MECHANICAL DATA

- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Lead: Axial leads, solderable per MIL - STD - 202, method 208 guaranteed
- \* Polarity: Color band denotes cathode end
- \* Mounting Position: Any
- \* Weight: 0.40 grams

### DO-15



Dimensions in inches and (millimeters)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

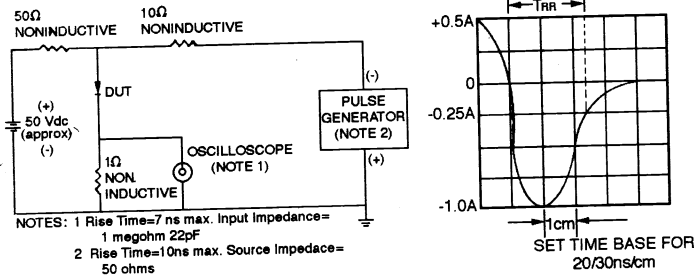
Rating at 25°C ambient temperature unless otherwise specified.  
Single phase, half wave, 60 Hz, resistive or inductive load.  
For capacitive load, derate current by 20%

TYPE NUMBER	SYMBOLS	HER 151	HER 152	HER 153	HER 154	HER 155	HER 156	HER 157	HER 158	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	300	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	210	280	420	560	700	V
Maximum D.C Blocking Voltage	$V_{DC}$	50	100	200	300	400	600	800	1000	V
Maximum Average Forward Rectified Current .375" (9.5mm) lead length @ $T_A = 55^\circ\text{C}$	$I_{F(AV)}$	1.5								A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	50								A
Maximum Instantaneous Forward Voltage at 1.5A	$V_F$	1.0		1.3		1.7			V	
Maximum D.C Reverse Current @ $T_A = 25^\circ\text{C}$ at Rated D.C Blocking Voltage @ $T_A = 100^\circ\text{C}$	$I_R$	5.0				100				$\mu\text{A}$ $\mu\text{A}$
Maximum Reverse Recovery Time (Note 1)	$T_{RR}$	50				75				nS
Typical Junction Capacitance (Note 2)	$C_J$	50				30				pF
Operating Temperature Range	$T_J$	- 65 to + 125								$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	- 65 to + 150								$^\circ\text{C}$

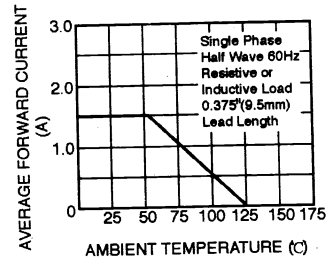
NOTES: 1. Reverse Recovery Test Conditions:  $I_F = 0.5\text{A}$ ,  $I_R = 1.0\text{A}$ ,  $I_{RR} = 0.25\text{A}$ .  
2. Measured at 1 MHz and applied reverse voltage of 4.0V D.C.

# RATINGS AND CHARACTERISTIC CURVES (HER151 THRU HER158)

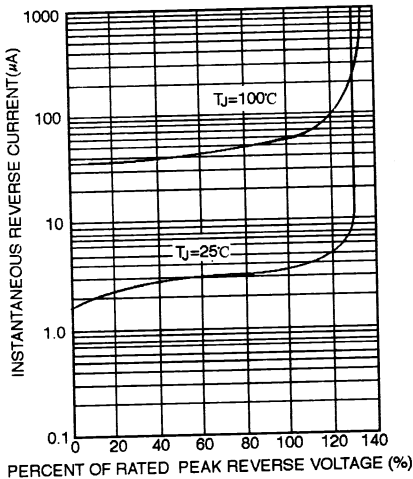
**FIG. 1 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS**



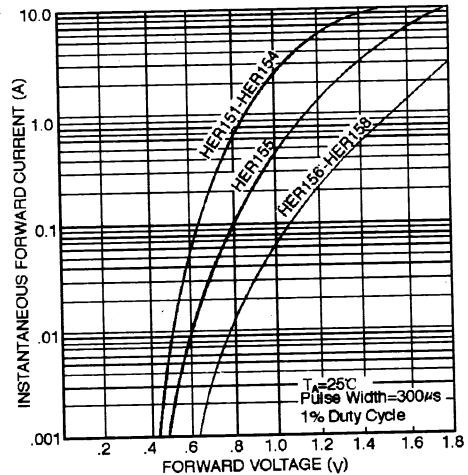
**FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE**



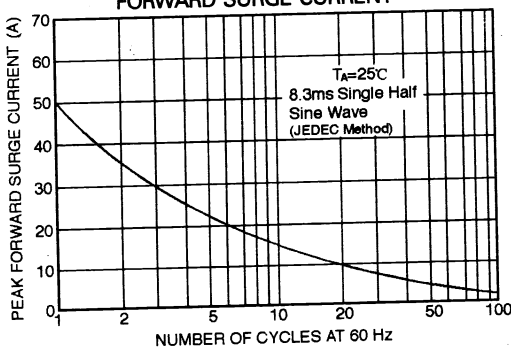
**FIG. 3 - TYPICAL REVERSE CHARACTERISTICS**



**FIG. 4 - TYPICAL FORWARD CHARACTERISTICS**



**FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**



**FIG. 6 - TYPICAL JUNCTION CAPACITANCE**

