

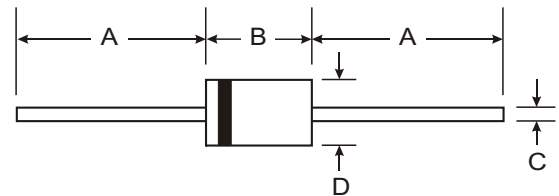
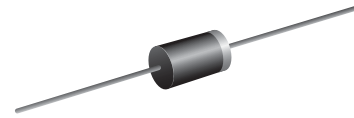
**VOLTAGE RANGE: 50 - 1000V**  
**CURRENT: 5.0 A**

### Features

- Diffused Junction
- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability

### Mechanical Data

- Case: DO-201AD, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 1.2 grams (approx.)
- Mounting Position: Any
- Marking: Type Number



DO-201AD		
Dim	Min	Max
A	25.40	—
B	8.50	9.53
C	0.96	1.06
D	4.80	5.21
All Dimensions in mm		

### Maximum Ratings and Electrical Characteristics @ $T_A=25^{\circ}\text{C}$ unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	HER 501	HER 502	HER 503	HER 504	HER 505	HER 506	HER 507	HER 508	Unit
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 DC Blocking Voltage	$V_{DC}$	50	100	200	300	400	600	800	1000	V
Maximum Average Forward Current 0.375"(9.5mm) Lead Length $T_a = 55^{\circ}\text{C}$	$I_{F(AV)}$	5.0								A
Maximum Peak Forward Surge Current, 8.3ms Single half sine wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	200								A
Maximum Forward Voltage at $I_F = 5.0\text{ A}$	$V_F$	1.1				1.7				V
Maximum DC Reverse Current $T_a = 25^{\circ}\text{C}$	$I_R$	10								$\mu\text{A}$
at Rated DC Blocking Voltage $T_a = 100^{\circ}\text{C}$	$I_{R(H)}$	50								$\mu\text{A}$
Maximum Reverse Recovery Time ( Note 1 )	$T_{rr}$	50				75				ns
Typical Junction Capacitance ( Note 2 )	$C_J$	50								pf
Junction Temperature Range	$T_J$	- 65 to + 150								$^{\circ}\text{C}$
Storage Temperature Range	$T_{STG}$	- 65 to + 150								$^{\circ}\text{C}$

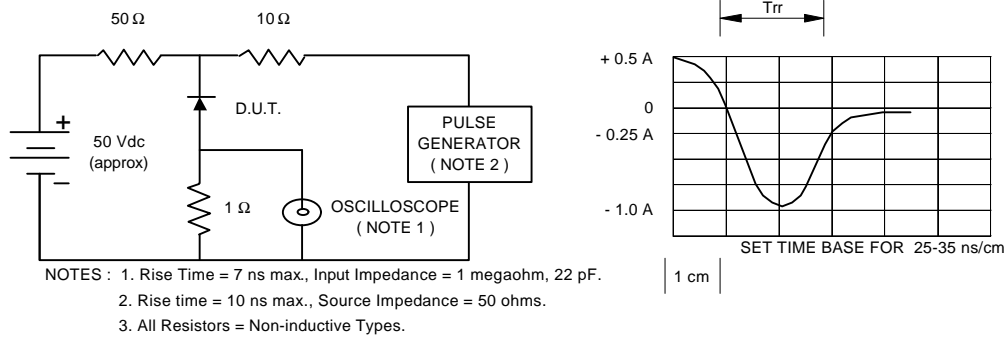
### Notes :

( 1 ) Reverse Recovery Test Conditions :  $I_F = 0.5\text{ A}$ ,  $I_R = 1.0\text{ A}$ ,  $I_{rr} = 0.25\text{ A}$ .

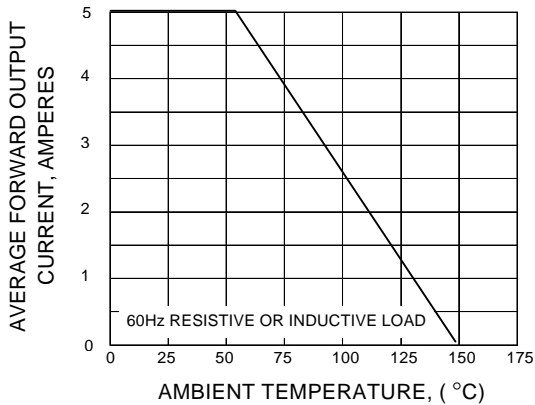
( 2 ) Measured at 1.0 MHz and applied reverse voltage of 4.0 Vdc

## RATING AND CHARACTERISTIC CURVES ( HER501 - HER508 )

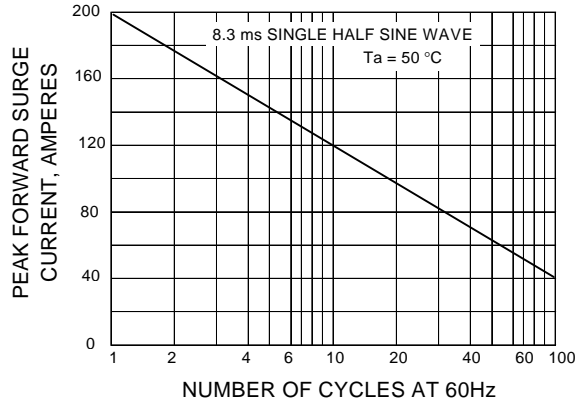
**FIG.1 - REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM**



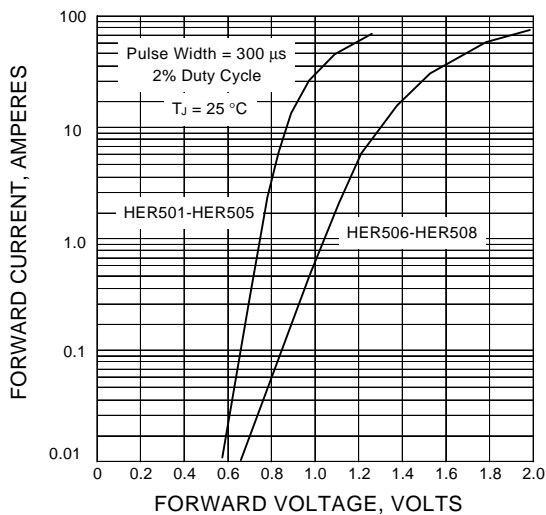
**FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



**FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**FIG.4 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.5 - TYPICAL REVERSE CHARACTERISTICS**

