

HER501 THRU HER508

Features

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

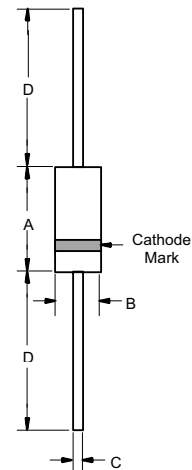
**5.0 Amp High
Efficient Rectifiers
50 to 1000 Volts**

Maximum Ratings

- Operating Temperature: -65°C to +125°C
- Storage Temperature: -65°C to +150°C
- For capacitive load, derate current by 20%

DO-201AD

Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
HER501	---	50V	35V	50V
HER502	---	100V	70V	100V
HER503	---	200V	140V	200V
HER504	---	300V	210V	300V
HER505	---	400V	280V	400V
HER506	---	600V	420V	600V
HER507	---	800V	560V	800V
HER508	---	1000V	700V	1000V



Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	5 A	$T_A = 55^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	200A	8.3ms, half sine
Maximum Instantaneous Forward Voltage HER501-504 HER505 HER506-508	V_F	1.0V 1.3V 1.7V	$I_{FM} = 5.0\text{A};$ $T_A = 25^\circ\text{C}$
Reverse Current At Rated DC Blocking Voltage (Maximum DC)	I_R	10 μA 200 μA	$T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$
Maximum Reverse Recovery Time HER501-505 HER506-508	T_{rr}	50ns 75ns	$I_F=0.5\text{A}, I_R=1.0\text{A},$ $I_{rr}=0.25\text{A}$
Typical Junction Capacitance HER501-505 HER506-508	C_J	100pF 65pF	Measured at 1.0MHz, $V_R=4.0\text{V}$

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	---	.370	---	9.50	
B	---	.250	---	6.40	
C	.048	.052	1.20	1.30	
D	1.000	---	25.40	---	

*Pulse Test: Pulse Width 300 μsec , Duty Cycle 1%

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

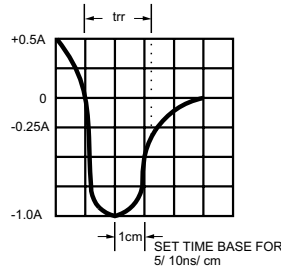
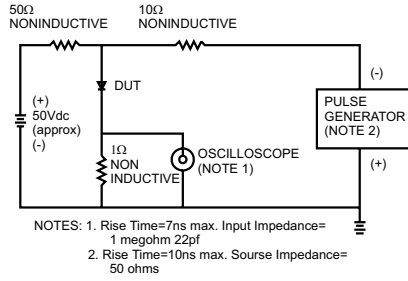


FIG.2- MAXIMUM AVERAGE FORWARD CURRENT DERATING

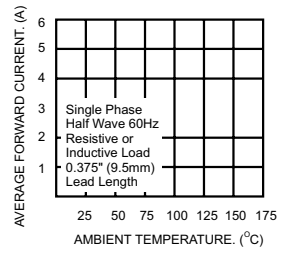


FIG.3- TYPICAL REVERSE CHARACTERISTICS

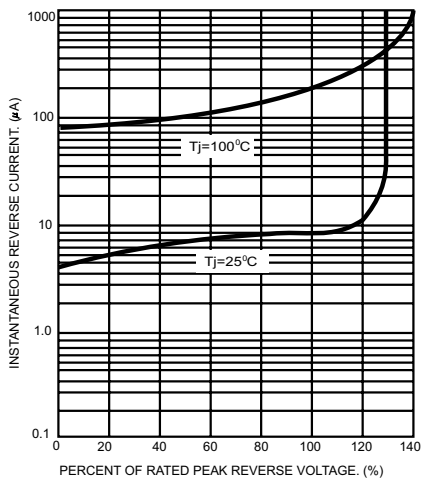


FIG.5- TYPICAL FORWARD CHARACTERISTICS

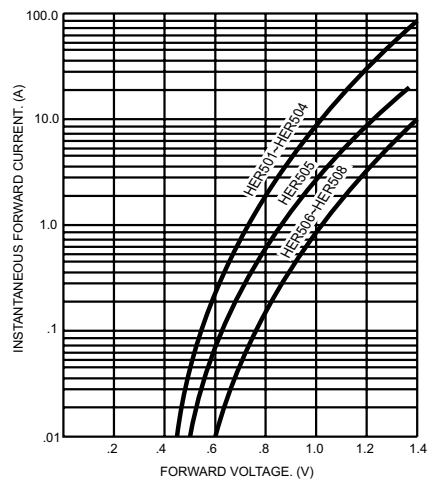


FIG.4- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

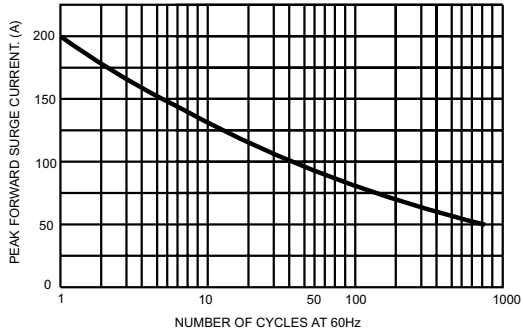


FIG.6- TYPICAL JUNCTION CAPACITANCE

