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# HER101S THRU HER108S

## Features

- High Surge Current Capability
- High Reliability
- Low Forward Voltage Drop
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Lead Free Finish/Rohs Compliant (Note1) ("P" Suffix designates Compliant. See ordering information)

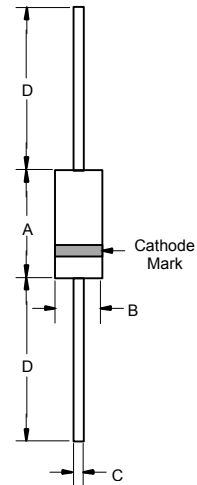
## Maximum Ratings

Operating Temperature: -55°C to +125°C  
Storage Temperature: -55°C to +150°C  
For capacitive load, derate current by 20%

Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
HER101S	HER101S	50V	35V	50V
HER102S	HER102S	100V	70V	100V
HER103S	HER103S	200V	140V	200V
HER104S	HER104S	300V	210V	300V
HER105S	HER105S	400V	280V	400V
HER106S	HER106S	600V	420V	600V
HER107S	HER107S	800V	560V	800V
HER108S	HER108S	1000V	700V	1000V

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

A-405



## Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	1.0 A	$T_A = 55^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	30A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	$V_F$	1.0V	$I_{FM} = 1.0\text{A};$ $T_A = 25^\circ\text{C}$
HER101S-104S		1.3V	
HER105S		1.7V	
HER106S-108S			
Reverse Current At Rated DC Blocking Voltage (Maximum DC)	$I_R$	5.0 A 100 A	$T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$
Maximum Reverse Recovery Time	$T_{rr}$	50ns	$I_F=0.5\text{A}, I_R=1.0\text{A},$ $I_{rr}=0.25\text{A}$
HER101S-105S		75ns	
HER106S-108S			
Typical Junction Capacitance	$C_J$	20pF	Measured at 1.0MHz, $V_R=4.0\text{V}$
HER101S-105S		15pF	
HER106S-108S			

DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	.166	.205	4.10	5.20	
B	.080	.107	2.00	2.70	
C	.021	.025	.53	.64	
D	1.000	---	25.40	---	

Note: 1. High Temperature Solder Exemptions Applied, see EU Directive Annex 7.

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## RATINGS AND CHARACTERISTIC CURVES

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

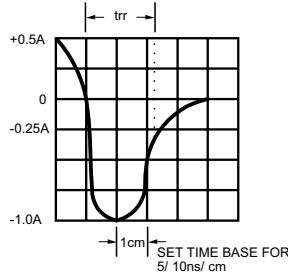
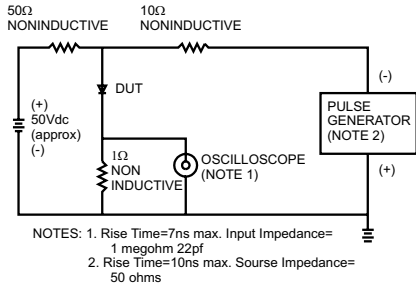


FIG.2- MAXIMUM AVERAGE FORWARD CURRENT DERATING

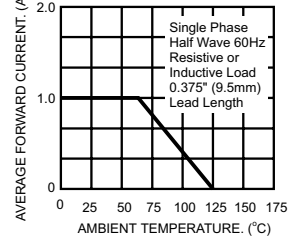


FIG.3- TYPICAL REVERSE CHARACTERISTICS

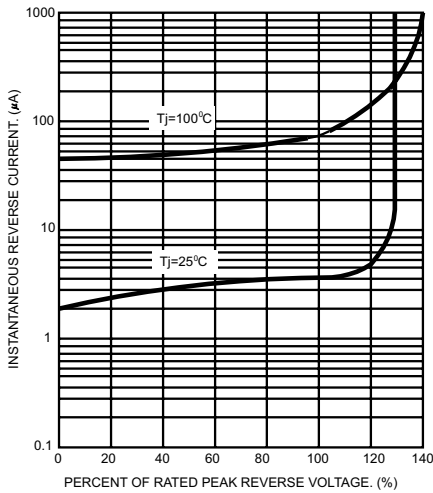


FIG.4- TYPICAL FORWARD CHARACTERISTICS

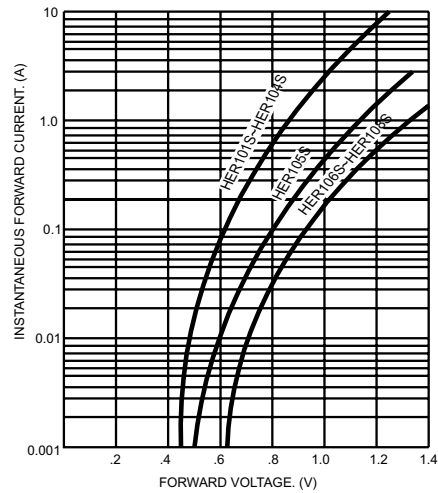


FIG.5- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

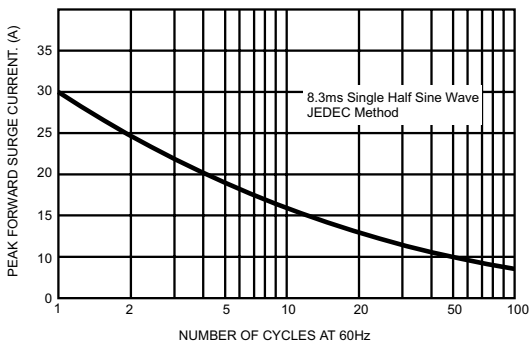


FIG.6- TYPICAL JUNCTION CAPACITANCE

