

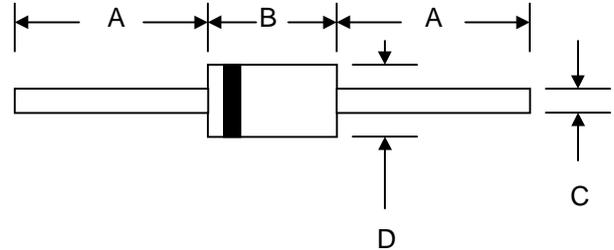


# HER151 – HER158

## 1.5A HIGH EFFICIENCY RECTIFIER

### Features

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



DO-15		
Dim	Min	Max
A	25.4	—
B	5.50	7.62
C	0.71	0.864
D	2.60	3.60
All Dimensions in mm		

### Mechanical Data

- Case: Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.40 grams (approx.)
- Mounting Position: Any
- Marking: Type Number

### 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 151	HER 152	HER 153	HER 154	HER 155	HER 156	HER 157	HER 158	Unit	
Peak Repetitive Reverse Voltage	$V_{RRM}$	50	100	200	300	400	600	800	1000	V	
Working Peak Reverse Voltage	$V_{RWM}$										
DC Blocking Voltage	VR										
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	210	280	420	560	700	V	
Average Rectified Output Current (Note 1) @ $T_A = 55^\circ\text{C}$	$I_O$	1.5								A	
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	50								A	
Forward Voltage @ $I_F = 1.5\text{A}$	$V_{FM}$	1.0			1.3		1.7			V	
Peak Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$	$I_{RM}$	5.0					100				$\mu\text{A}$
Reverse Recovery Time (Note 2)	$t_{rr}$	50					75				nS
Typical Junction Capacitance (Note 3)	$C_j$	50					30				pF
Operating Temperature Range	$T_j$	-65 to +125								$^\circ\text{C}$	
Storage Temperature Range	$T_{STG}$	-65 to +150								$^\circ\text{C}$	

**\*Glass passivated forms are available upon request**

- Note: 1. Leads maintained at ambient temperature at a distance of 9.5mm from the case  
2. Measured with  $I_F = 0.5\text{A}$ ,  $I_R = 1.0\text{A}$ ,  $IRR = 0.25\text{A}$ . See figure 5.  
3. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

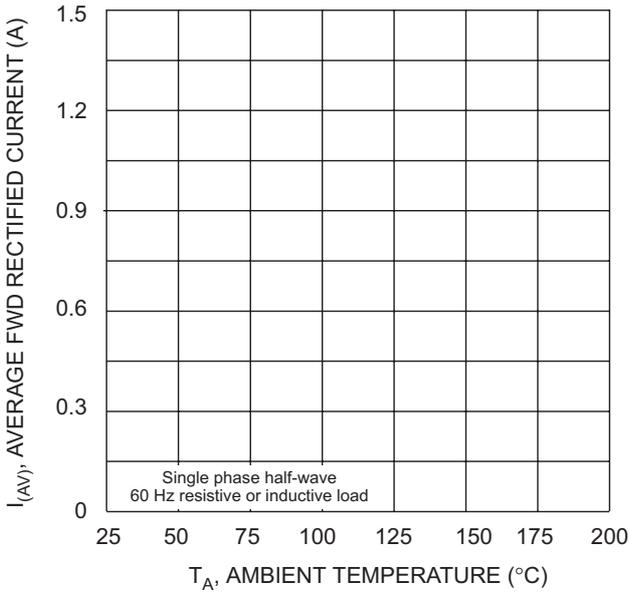


Fig. 1 Forward Current Derating Curve

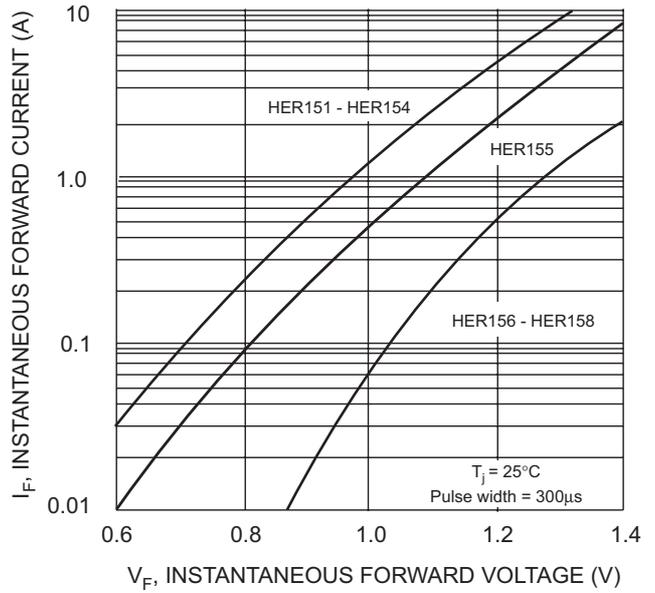


Fig. 2 Typical Forward Characteristics

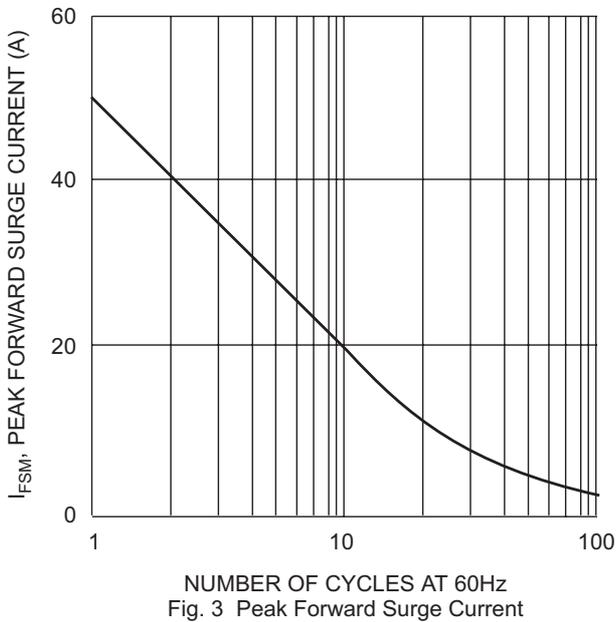


Fig. 3 Peak Forward Surge Current

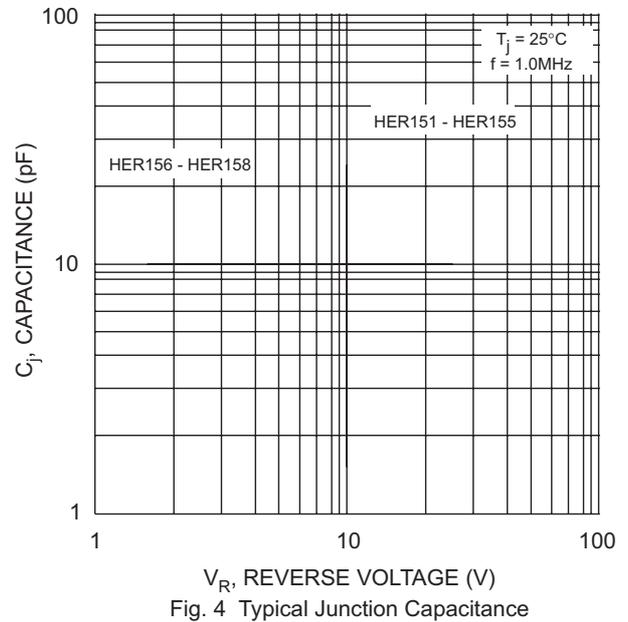
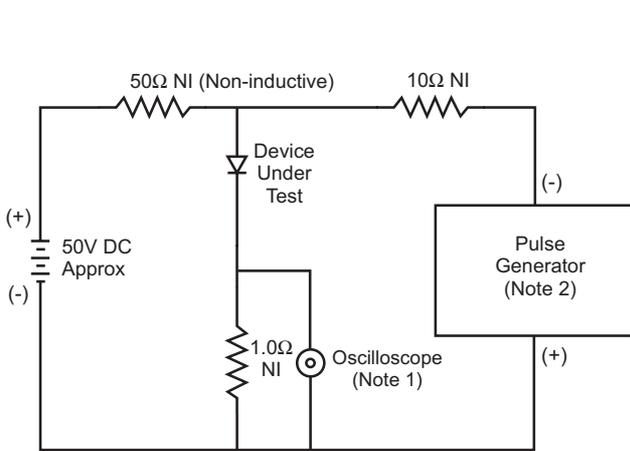


Fig. 4 Typical Junction Capacitance



- Notes:
1. Rise Time = 7.0ns max. Input Impedance = 1.0MΩ, 22pF.
  2. Rise Time = 10ns max. Input Impedance = 50Ω.

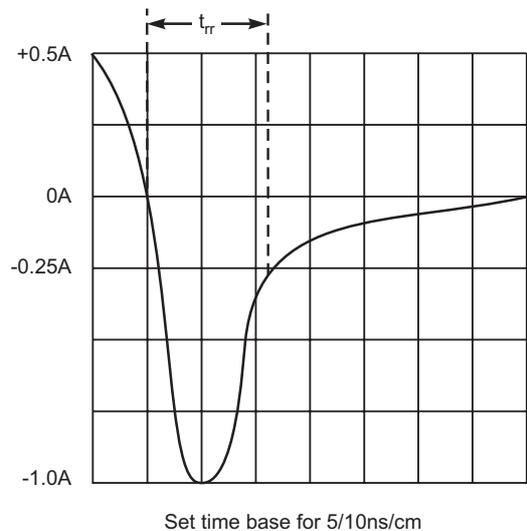


Fig. 5 Reverse Recovery Time Characteristic and Test Circuit

## ORDERING INFORMATION

Product No.♦	Package Type	Shipping Quantity
HER151-T3	DO-15	4000/Tape & Reel
<b>HER151-TB</b>	DO-15	3000/Tape & Box
HER151	DO-15	1000 Units/Box
HER152-T3	DO-15	4000/Tape & Reel
<b>HER152-TB</b>	DO-15	3000/Tape & Box
HER152	DO-15	1000 Units/Box
HER153-T3	DO-15	4000/Tape & Reel
<b>HER153-TB</b>	DO-15	3000/Tape & Box
HER153	DO-15	1000 Units/Box
HER154-T3	DO-15	4000/Tape & Reel
<b>HER154-TB</b>	DO-15	3000/Tape & Box
HER154	DO-15	1000 Units/Box
HER155-T3	DO-15	4000/Tape & Reel
<b>HER155-TB</b>	DO-15	3000/Tape & Box
HER155	DO-15	1000 Units/Box
HER156-T3	DO-15	4000/Tape & Reel
<b>HER156-TB</b>	DO-15	3000/Tape & Box
HER156	DO-15	1000 Units/Box
HER157-T3	DO-15	4000/Tape & Reel
<b>HER157-TB</b>	DO-15	3000/Tape & Box
HER157	DO-15	1000 Units/Box
HER158-T3	DO-15	4000/Tape & Reel
<b>HER158-TB</b>	DO-15	3000/Tape & Box
HER158	DO-15	1000 Units/Box

Products listed in **bold** are WTE **Preferred** devices.

♦T3 suffix refers to a 13" reel. TB suffix refers to Ammo Pack.

Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.

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**WARNING:** DO NOT USE IN LIFE SUPPORT EQUIPMENT. WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

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*We power your everyday.*