

# HER151 – HER158

## 1.5A HIGH EFFICIENCY RECTIFIER

### Features

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

### 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



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		

### 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.

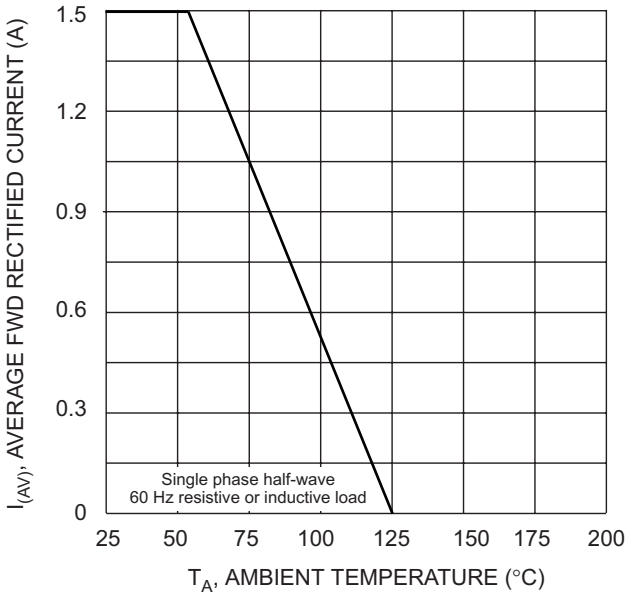


Fig. 1 Forward Current Derating Curve

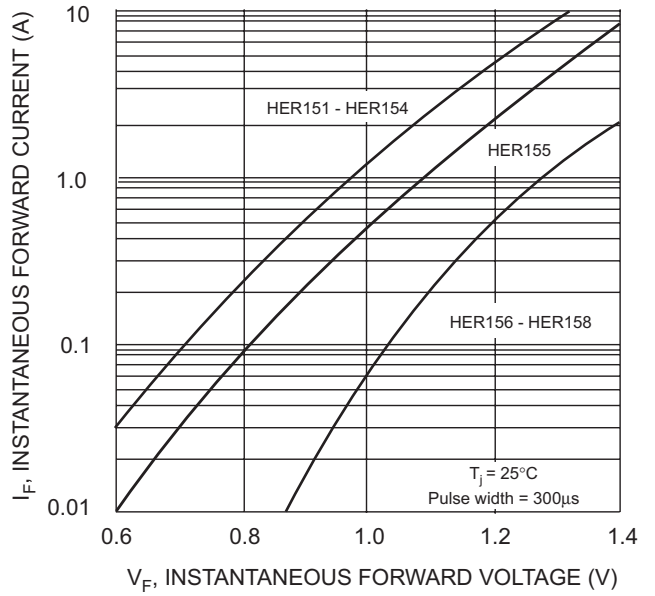


Fig. 2 Typical Forward Characteristics

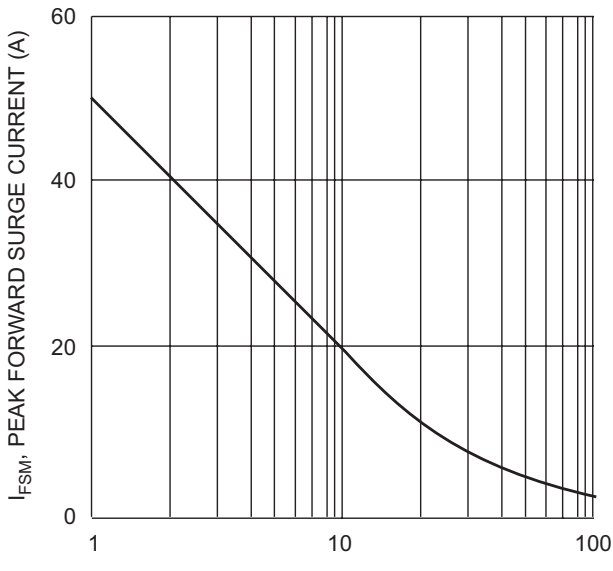


Fig. 3 Peak Forward Surge Current

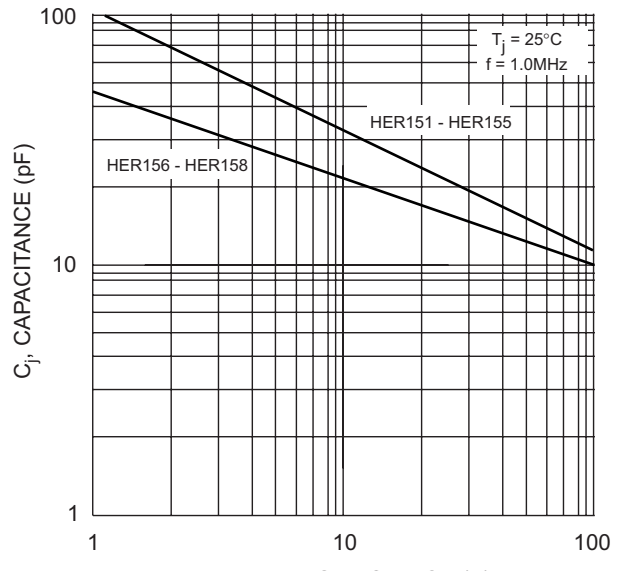
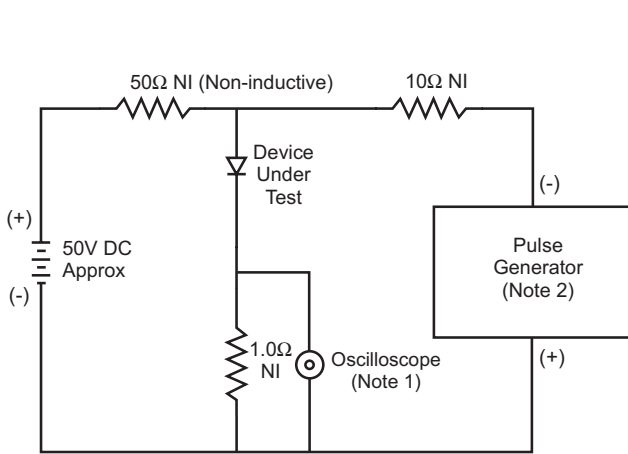
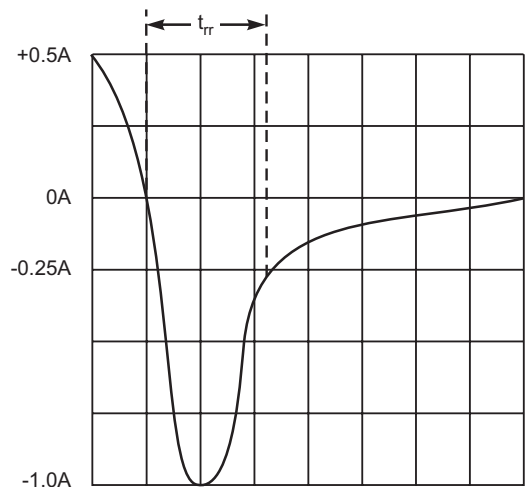


Fig. 4 Typical Junction Capacitance



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



Set time base for 5/10ns/cm

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.

Won-Top Electronics Co., Ltd (WTE) has checked all information carefully and believes it to be correct and accurate. However, WTE cannot assume any responsibility for inaccuracies. Furthermore, this information does not give the purchaser of semiconductor devices any license under patent rights to manufacturer. WTE reserves the right to change any or all information herein without further notice.

**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.

**Won-Top Electronics Co., Ltd.**

No. 44 Yu Kang North 3rd Road, Chine Chen Dist., Kaohsiung, Taiwan

**Phone:** 886-7-822-5408 or 886-7-822-5410

**Fax:** 886-7-822-5417

**Email:** sales@wontop.com

**Internet:** http://www.wontop.com

*We power your everyday.*