

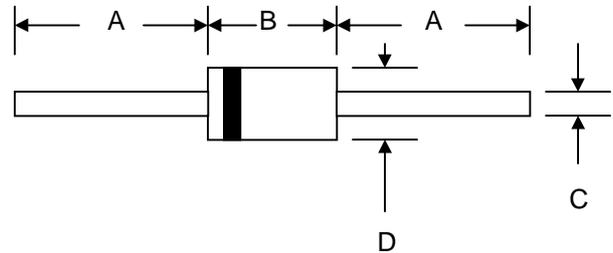
## 1.0A MINIATURE HIGH EFFICIENCY RECTIFIER

### 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: 0.181grams (approx.)
- Mounting Position: Any
- Marking: Type Number



R-1		
Dim	Min	Max
A	20.0	—
B	2.00	3.50
C	0.53	0.64
D	2.20	2.60
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	1H1	1H2	1H3	1H4	1H5	1H6	1H7	1H8	Unit	
Peak Repetitive Reverse Voltage	$V_{RRM}$										
Working Peak Reverse Voltage	$V_{RWM}$	50	100	200	300	400	600	800	1000	V	
DC Blocking Voltage	$V_R$										
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	210	280	420	560	700	V	
Average Rectified Output Current (Note 1)	$I_O$	1.0								A	
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	30								A	
Forward Voltage @ $I_F = 1.0\text{A}$	$V_{FM}$	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)	$C_j$	20					15				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 1.  
3. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

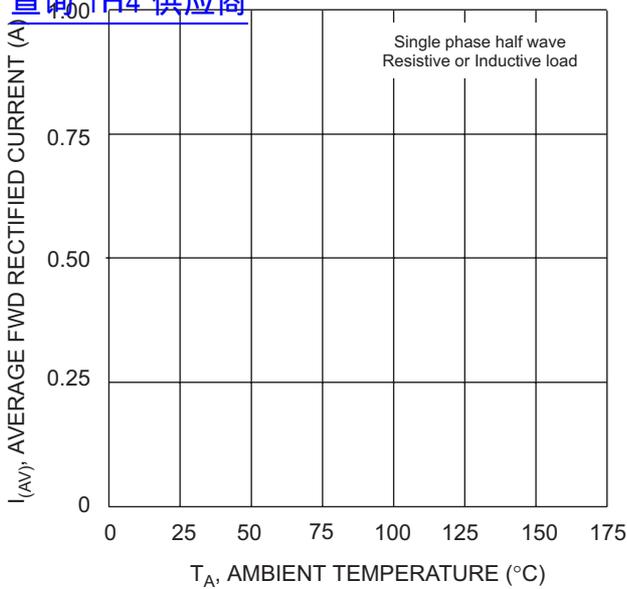


Fig. 1 Forward Current Derating Curve

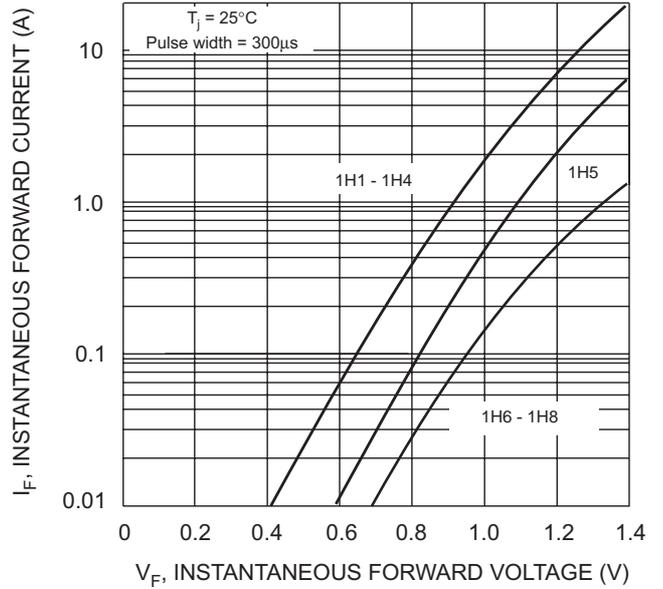


Fig. 2 Typical Forward Characteristics

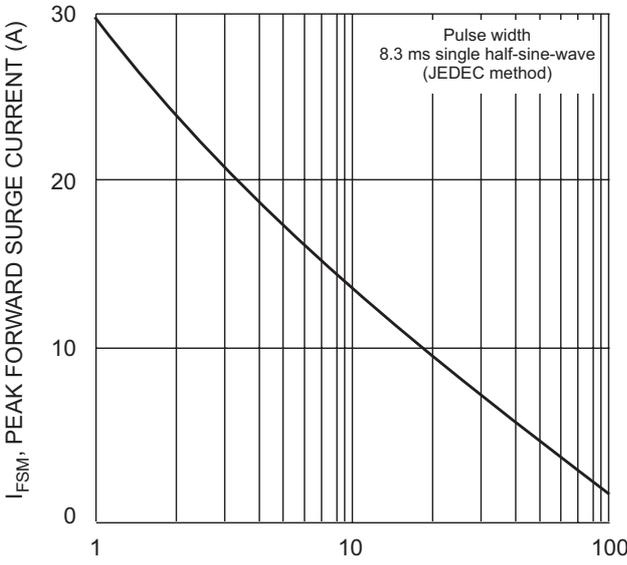


Fig. 3 Peak Forward Surge Current

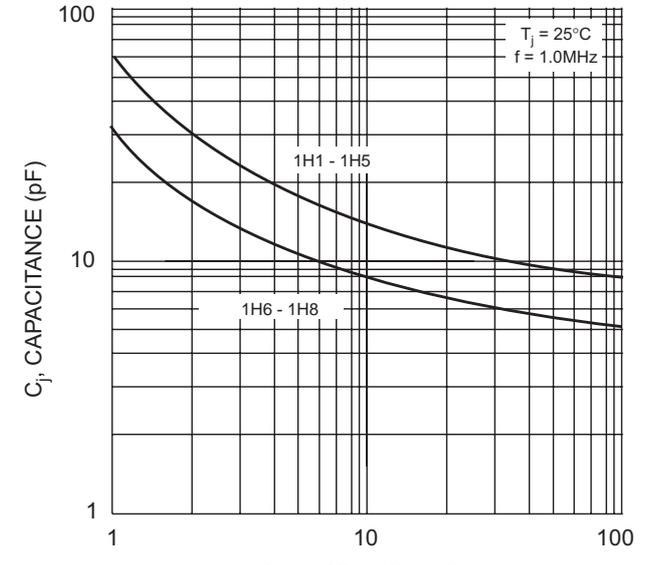
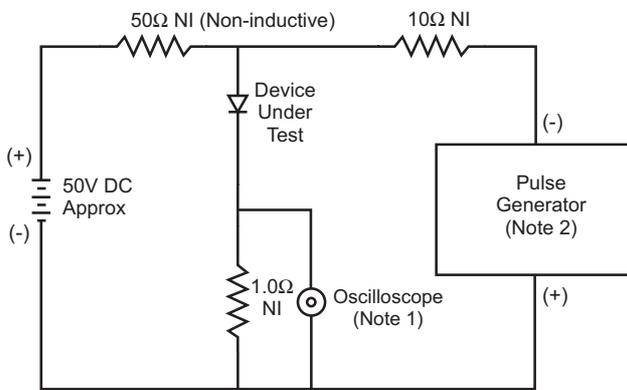


Fig. 4 Typical Junction Capacitance



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

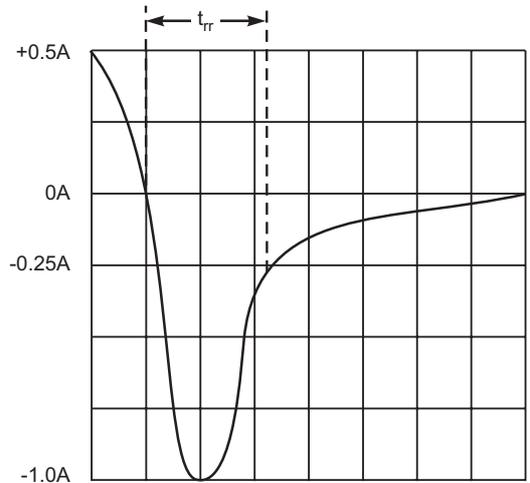


Fig. 5 Reverse Recovery Time Characteristic and Test Circuit

**ORDERING INFORMATION**

Product No.◆	Package Type	Shipping Quantity
1H1-T3	R-1	5000/Tape & Reel
<b>1H1-TB</b>	R-1	5000/Tape & Box
1H1	R-1	1000 Units/Box
1H2-T3	R-1	5000/Tape & Reel
<b>1H2-TB</b>	R-1	5000/Tape & Box
1H2	R-1	1000 Units/Box
1H3-T3	R-1	5000/Tape & Reel
<b>1H3-TB</b>	R-1	5000/Tape & Box
1H3	R-1	1000 Units/Box
1H4-T3	R-1	5000/Tape & Reel
<b>1H4-TB</b>	R-1	5000/Tape & Box
1H4	R-1	1000 Units/Box
1H5-T3	R-1	5000/Tape & Reel
<b>1H5-TB</b>	R-1	5000/Tape & Box
1H5	R-1	1000 Units/Box
1H6-T3	R-1	5000/Tape & Reel
<b>1H6-TB</b>	R-1	5000/Tape & Box
1H6	R-1	1000 Units/Box
1H7-T3	R-1	5000/Tape & Reel
<b>1H7-TB</b>	R-1	5000/Tape & Box
1H7	R-1	1000 Units/Box
1H8-T3	R-1	5000/Tape & Reel
<b>1H8-TB</b>	R-1	5000/Tape & Box
1H8	R-1	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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