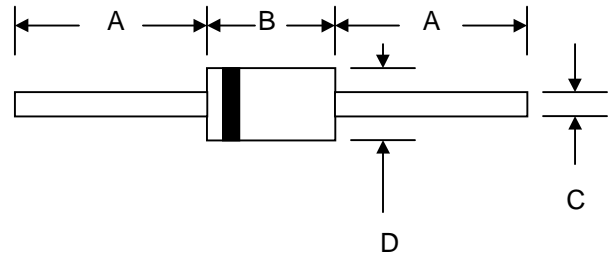


Features

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



Mechanical Data

- Case: R-1, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.181 grams (approx.)
- Mounting Position: Any
- Marking: Type Number
- **Lead Free: For RoHS / Lead Free Version, Add “-LF” Suffix to Part Number, See Page 4**

R-1		
Dim	Min	Max
A	20.0	—
B	2.90	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}	50	100	200	300	400	600	800	1000	V	
Working Peak Reverse Voltage	V_{RWM}										
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	
		@ $T_A = 55^\circ\text{C}$									
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30								A	
Forward Voltage	V_{FM}	1.0			1.3		1.7			V	
		@ $I_F = 1.0\text{A}$									
Peak Reverse Current	I_{RM}	5.0								μA	
At Rated DC Blocking Voltage		100									
		@ $T_A = 25^\circ\text{C}$									
		@ $T_A = 100^\circ\text{C}$									
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								$^\circ\text{C}$	

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.

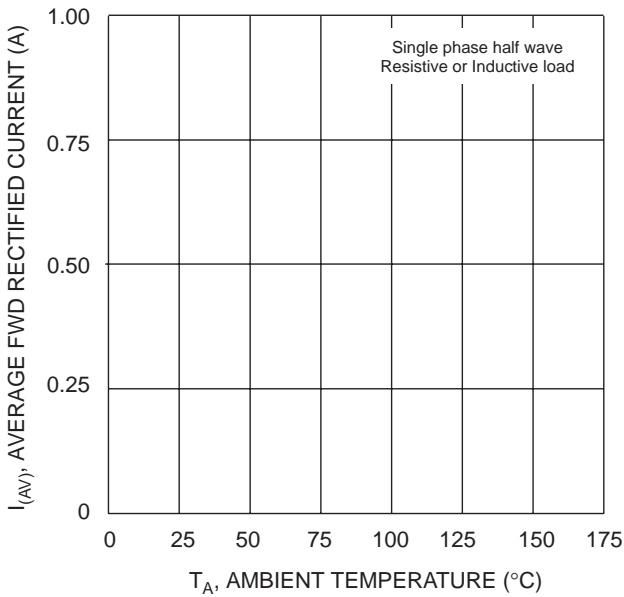


Fig. 1 Forward Current Derating Curve

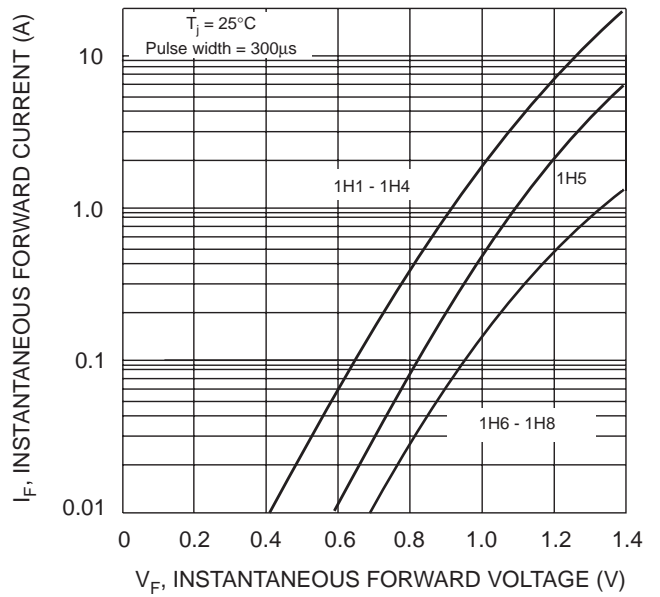


Fig. 2 Typical Forward Characteristics

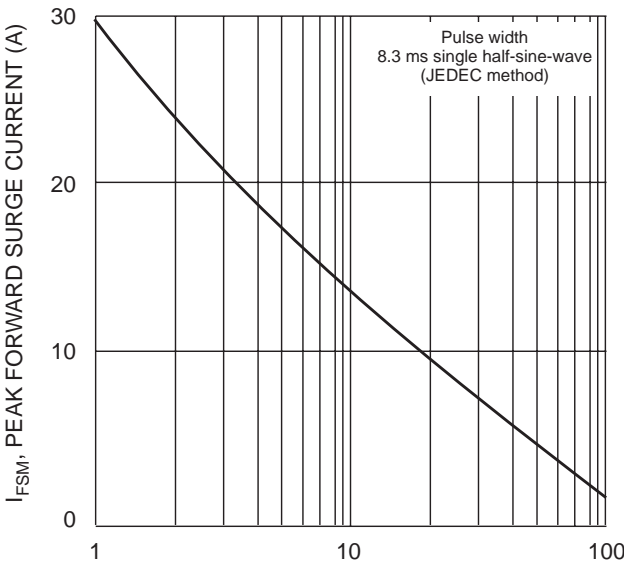


Fig. 3 Peak Forward Surge Current

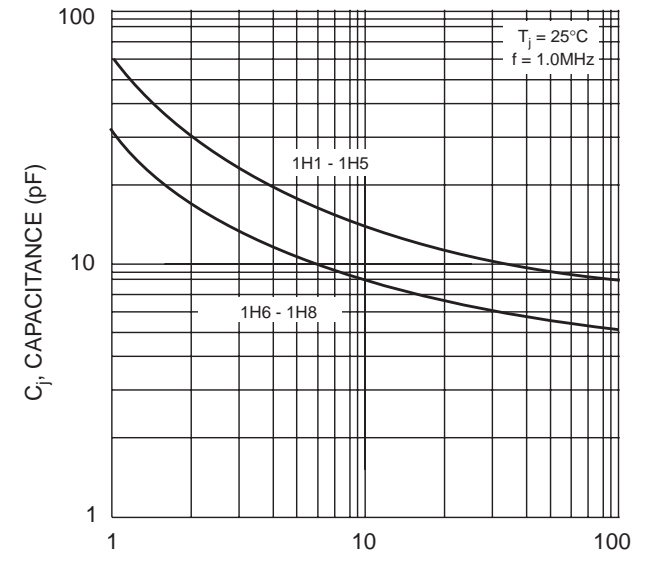
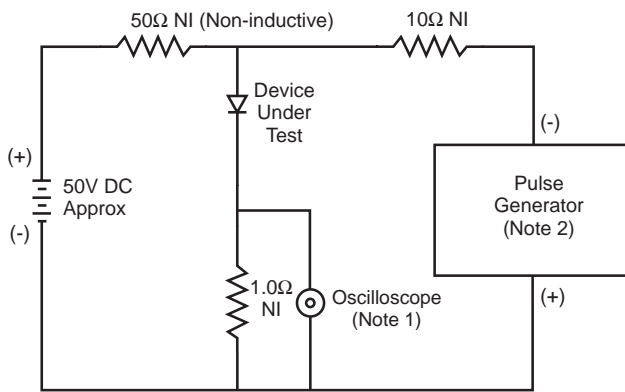
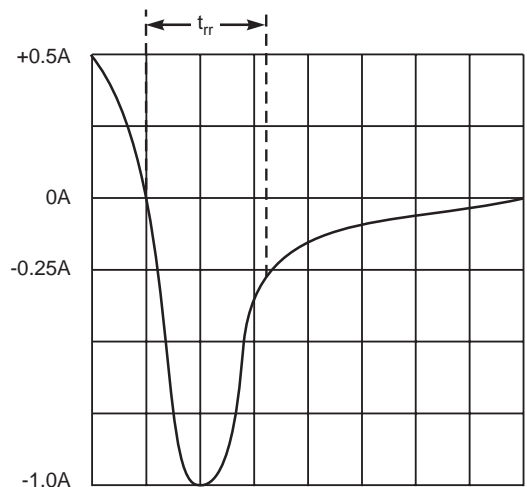


Fig. 4 Typical Junction Capacitance



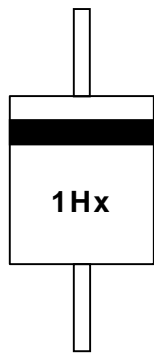
- Notes:
1. Rise Time = 7.0ns max. Input Impedance = 1.0MΩ, 22pF.
 2. Rise Time = 10ns max. Input Impedance = 50Ω.



Set time base for 5/10ns/cm

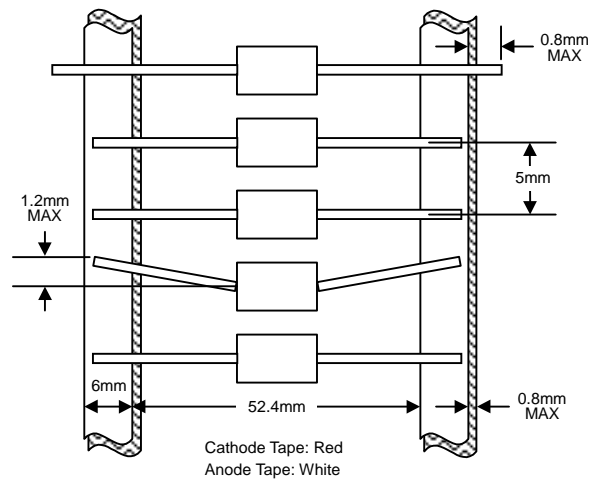
Fig. 5 Reverse Recovery Time Characteristic and Test Circuit

MARKING INFORMATION



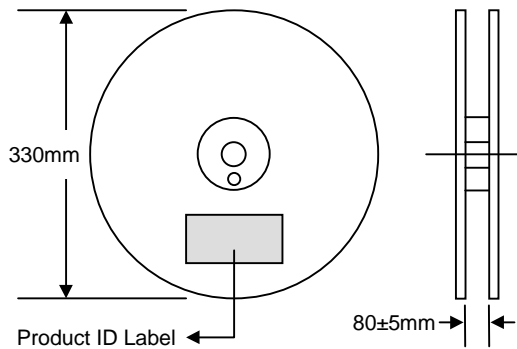
Cathode = Polarity Band
 1Hx = Device Number
 x = 1, 2, 3, 4, 5, 6, 7 or 8

TAPING SPECIFICATIONS

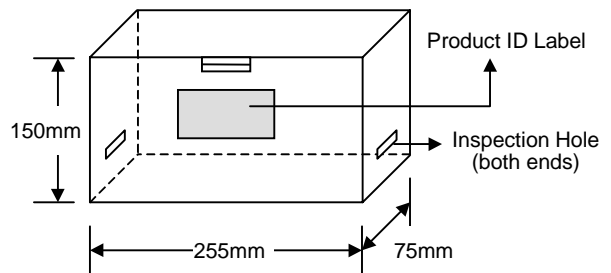


PACKAGING INFORMATION

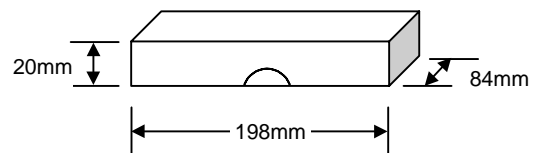
TAPE & REEL



TAPE & BOX



BULK



Packaging	Reel Diameter / Box Size (mm)	Quantity (PCS)	Carton Size (mm)	Quantity (PCS)	Approx. Gross Weight (KG)
TAPE & REEL	330	5,000	370 x 370 x 420	25,000	9.0
TAPE & BOX	255 x 75 x 150	5,000	400 x 273 x 415	50,000	20.0
BULK	198 x 84 x 20	1,000	459 x 214 x 256	50,000	18.5

Note: 1. Paper reel, white or gray color. Core material: plastic or metal.
 2. Components are packed in accordance with EIA standard RS-296-E.

ORDERING INFORMATION

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

1. Products listed in **bold** are WTE **Preferred** devices.
2. Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.
3. **To order RoHS / Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, 1H1-TB-LF.**

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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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