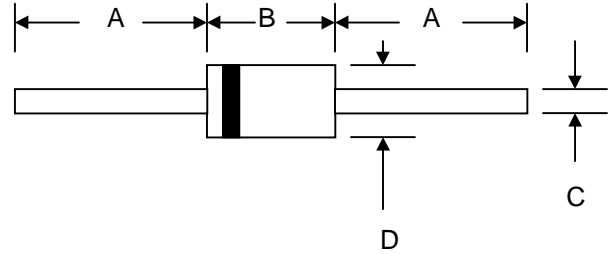


### Features

- 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	1A1	1A2	1A3	1A4	1A5	1A6	1A7	Unit
Peak Repetitive Reverse Voltage	$V_{RRM}$	50	100	200	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	280	420	560	700	V
Average Rectified Output Current (Note 1) @ $T_A = 75^\circ\text{C}$	$I_O$	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							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 50							$\mu\text{A}$
Typical Junction Capacitance (Note 2)	$C_j$	15							pF
Typical Thermal Resistance Junction to Ambient (Note 1)	$R_{\theta JA}$	50							$^\circ\text{C/W}$
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 at 1.0 MHz and Applied Reverse Voltage of 4.0V D.C.

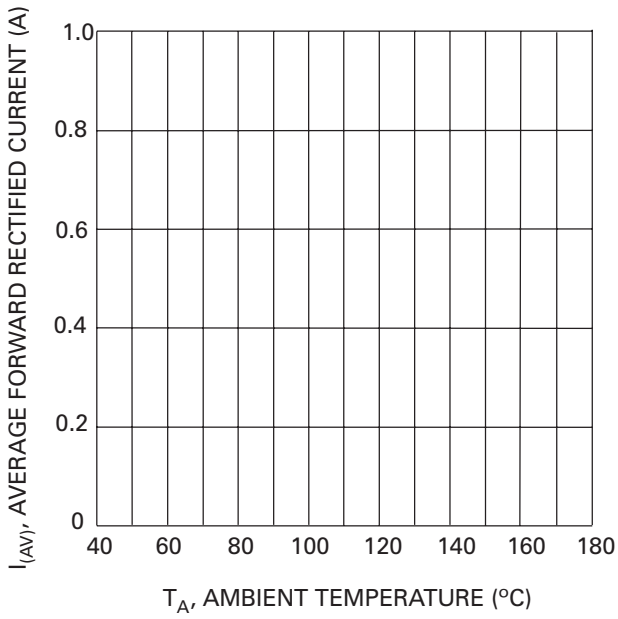


Fig. 1 Forward Current Derating Curve

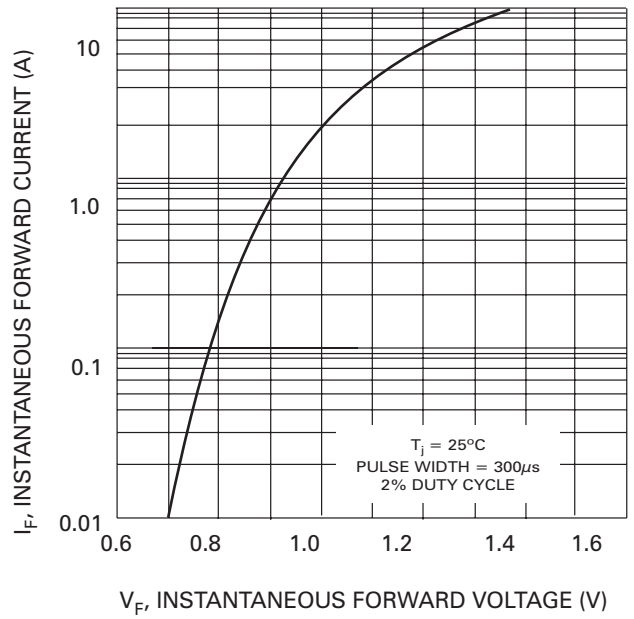


Fig. 2 Typical Forward Characteristics

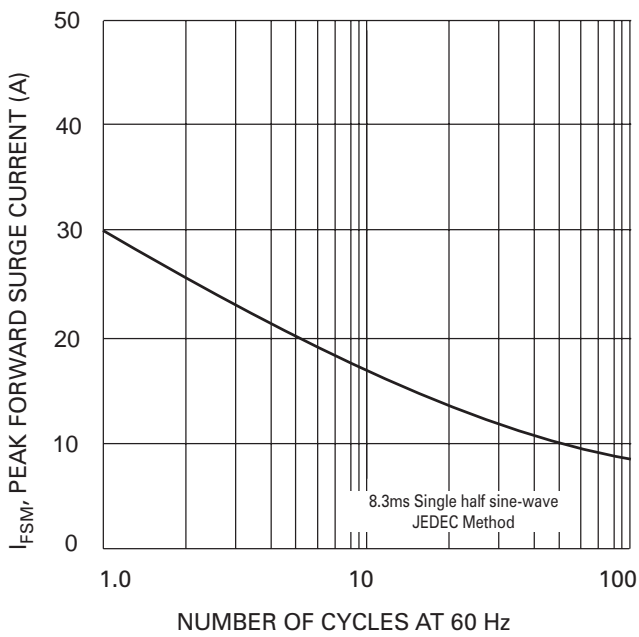


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

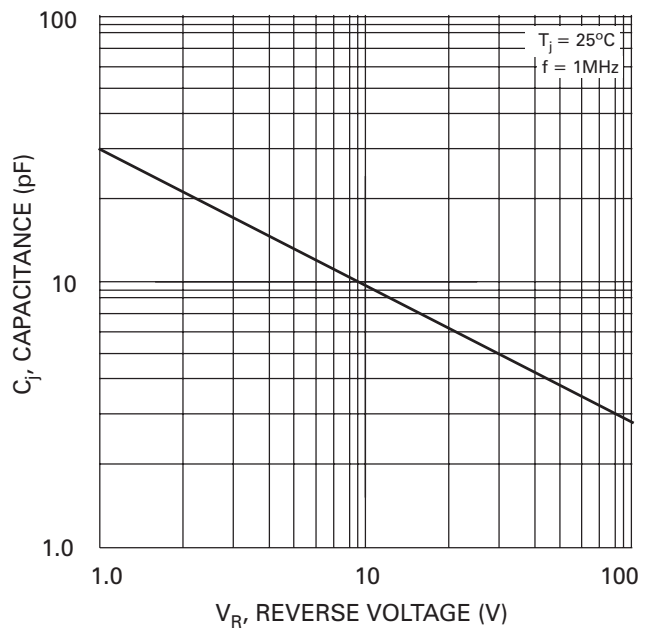
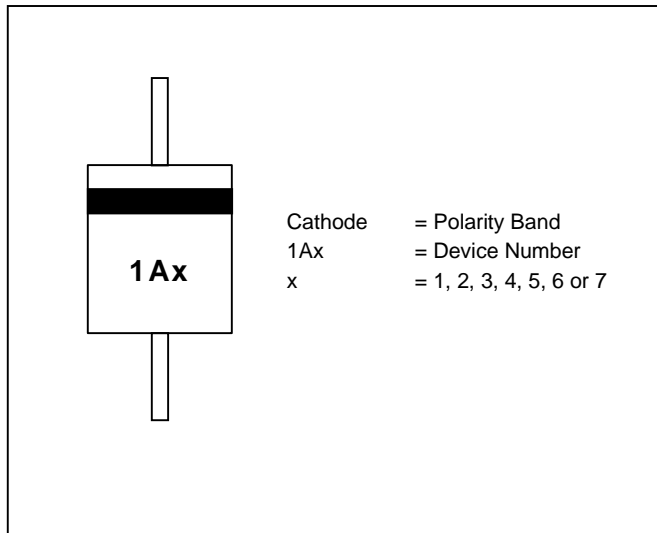
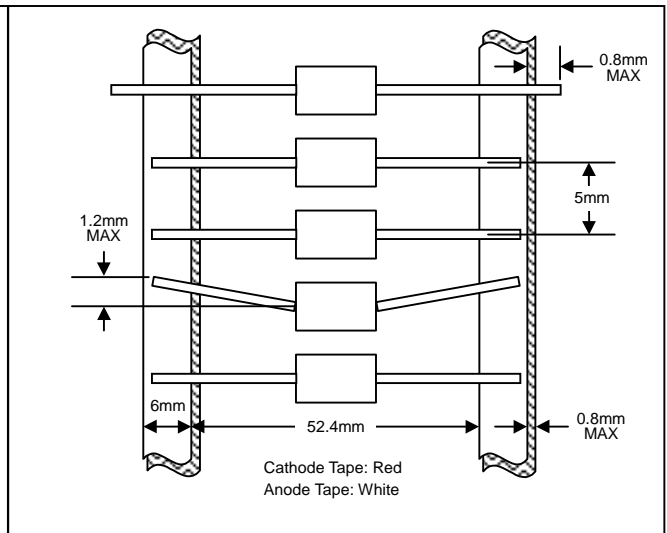


Fig. 4 Typical Junction Capacitance

## MARKING INFORMATION



## TAPING SPECIFICATIONS



## PACKAGING INFORMATION

### TAPE & REEL

330mm  
 Product ID Label  
 80±5mm

### TAPE & BOX

150mm  
 Product ID Label  
 Inspection Hole (both ends)  
 255mm  
 75mm

### BULK

20mm  
 198mm  
 84mm

Packaging	Reel Diameter / Box Size (mm)	Quantity (PCS)	Carton Size (mm)	Quantity (PCS)	Approx. Gross Weight (KG)
<b>TAPE &amp; REEL</b>	330	5,000	370 x 370 x 420	25,000	9.0
<b>TAPE &amp; BOX</b>	255 x 75 x 150	5,000	400 x 273 x 415	50,000	20.0
<b>BULK</b>	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
1A1-T3	R-1	5000/Tape & Reel
<b>1A1-TB</b>	R-1	5000/Tape & Box
1A1	R-1	1000 Units/Box
1A2-T3	R-1	5000/Tape & Reel
<b>1A2-TB</b>	R-1	5000/Tape & Box
1A2	R-1	1000 Units/Box
1A3-T3	R-1	5000/Tape & Reel
<b>1A3-TB</b>	R-1	5000/Tape & Box
1A3	R-1	1000 Units/Box
1A4-T3	R-1	5000/Tape & Reel
<b>1A4-TB</b>	R-1	5000/Tape & Box
1A4	R-1	1000 Units/Box
1A5-T3	R-1	5000/Tape & Reel
<b>1A5-TB</b>	R-1	5000/Tape & Box
1A5	R-1	1000 Units/Box
1A6-T3	R-1	5000/Tape & Reel
<b>1A6-TB</b>	R-1	5000/Tape & Box
1A6	R-1	1000 Units/Box
1A7-T3	R-1	5000/Tape & Reel
<b>1A7-TB</b>	R-1	5000/Tape & Box
1A7	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, 1A1-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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*We power your everyday.*