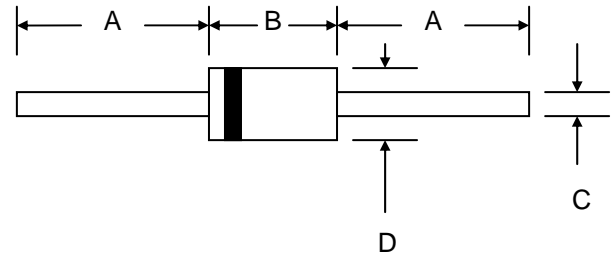


### Features

- Schottky Barrier Chip
- Guard Ring for Transient and ESD Protection
- Surge Overload Rating to 25A Peak
- Low Power Loss, High Efficiency
- Ideally Suited for Use in High Frequency SMPS, Inverters and As Free Wheeling Diodes



### Mechanical Data

- Case: DO-41, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.35 grams (approx.)
- Mounting Position: Any
- Marking: Type Number
- **Lead Free: For RoHS / Lead Free Version, Add "-LF" Suffix to Part Number, See Page 4**

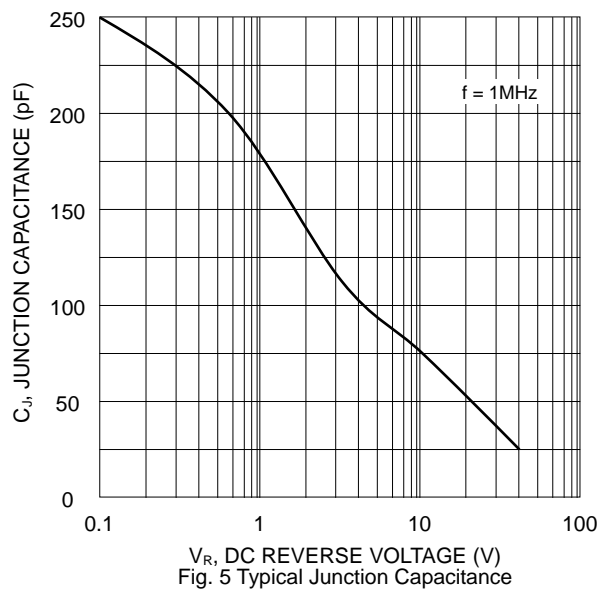
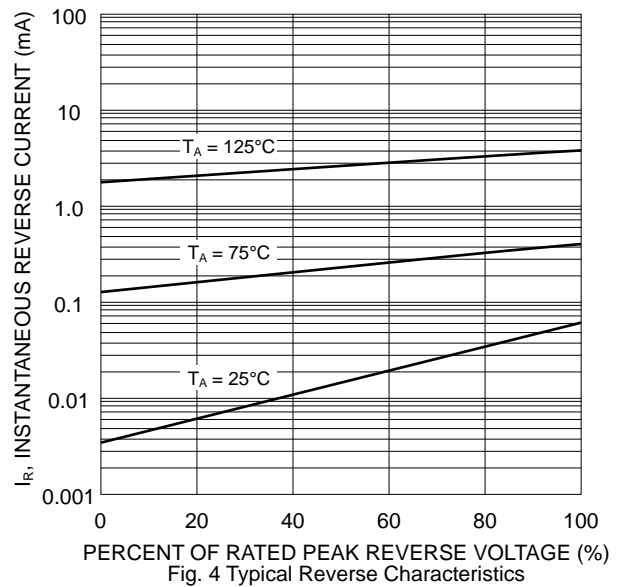
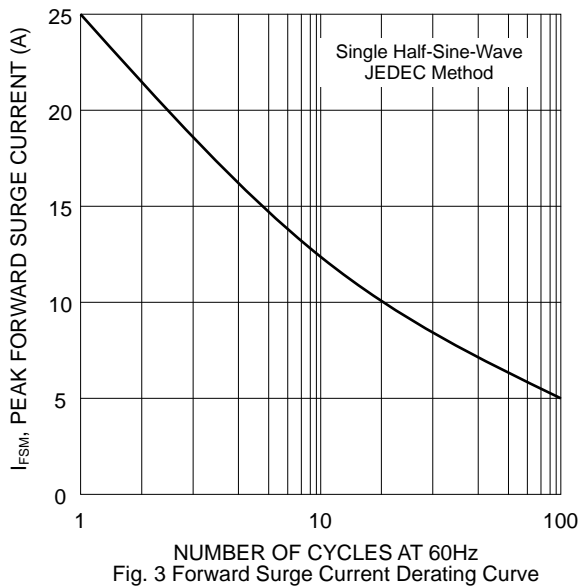
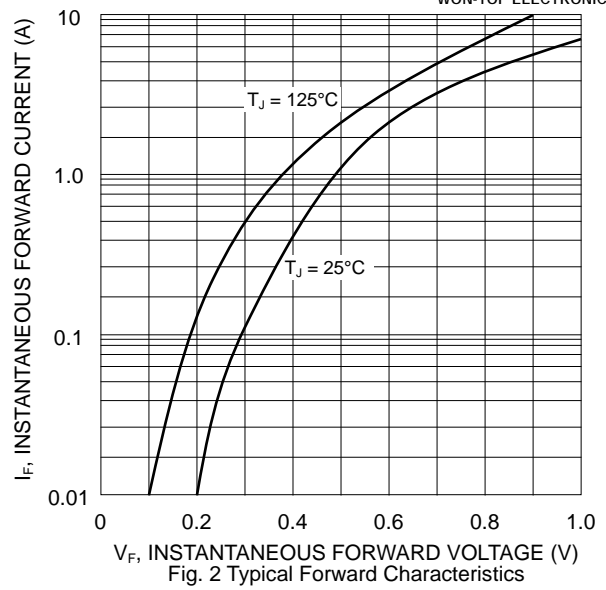
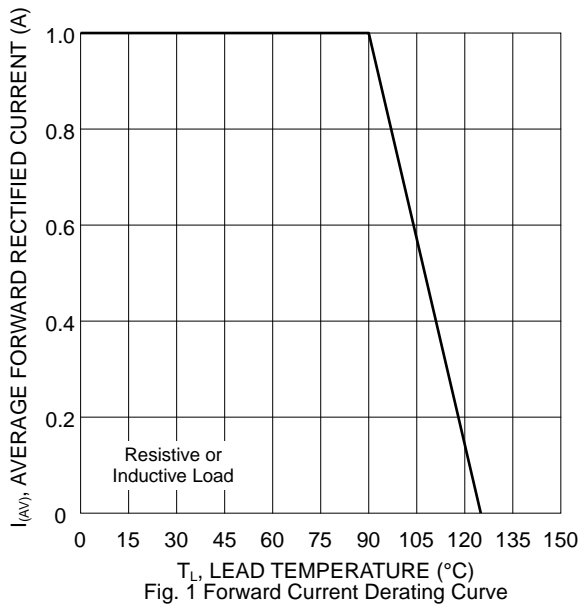
DO-41		
Dim	Min	Max
A	25.4	—
B	4.06	5.21
C	0.71	0.864
D	2.00	2.72
All Dimensions in mm		

### Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

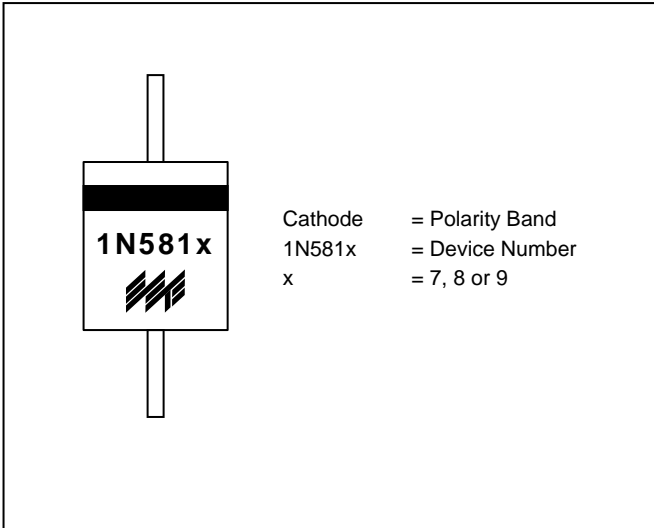
Single Phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

Characteristic	Symbol	1N5817	1N5818	1N5819	Unit
Peak Repetitive Reverse Voltage	$V_{RRM}$				
Working Peak Reverse Voltage	$V_{RWM}$	20	30	40	V
DC Blocking Voltage	$V_R$				
RMS Reverse Voltage	$V_{R(RMS)}$	14	21	28	V
Average Rectified Output Current (Note 1) @ $T_L = 90^\circ\text{C}$	$I_o$	1.0			A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	25			A
Forward Voltage @ $I_F = 1.0\text{A}$ @ $I_F = 3.0\text{A}$	$V_{FM}$	0.450 0.750	0.550 0.875	0.600 0.900	V
Peak Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$	$I_{RM}$	1.0 10			mA
Typical Junction Capacitance (Note 2)	$C_J$	110			pF
Thermal Resistance, Junction to Ambient (Note 3) Thermal Resistance, Junction to Lead (Note 3)	$R_{JA}$ $R_{JL}$	50 15			$^\circ\text{C}/\text{W}$
Operating Temperature Range	$T_J$	-65 to +125			$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-65 to +150			$^\circ\text{C}$

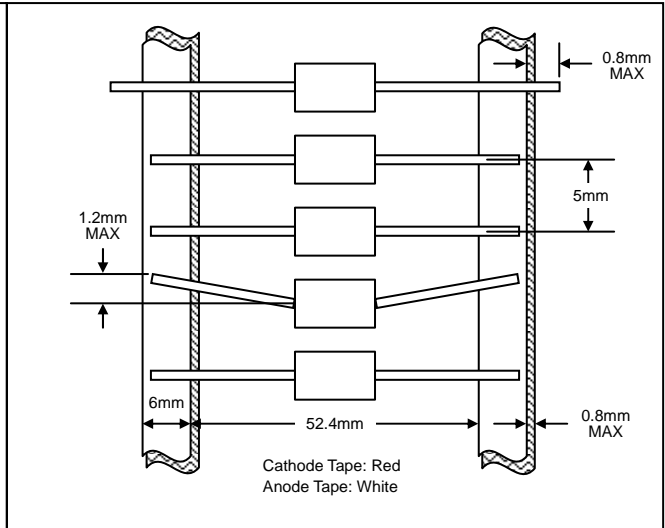
- Note: 1. Leads maintained at ambient temperature at a distance of 9.5mm from the case.  
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.  
3. Vertical PCB mounting with 9.5mm lead length on 38 x 38mm copper pad.



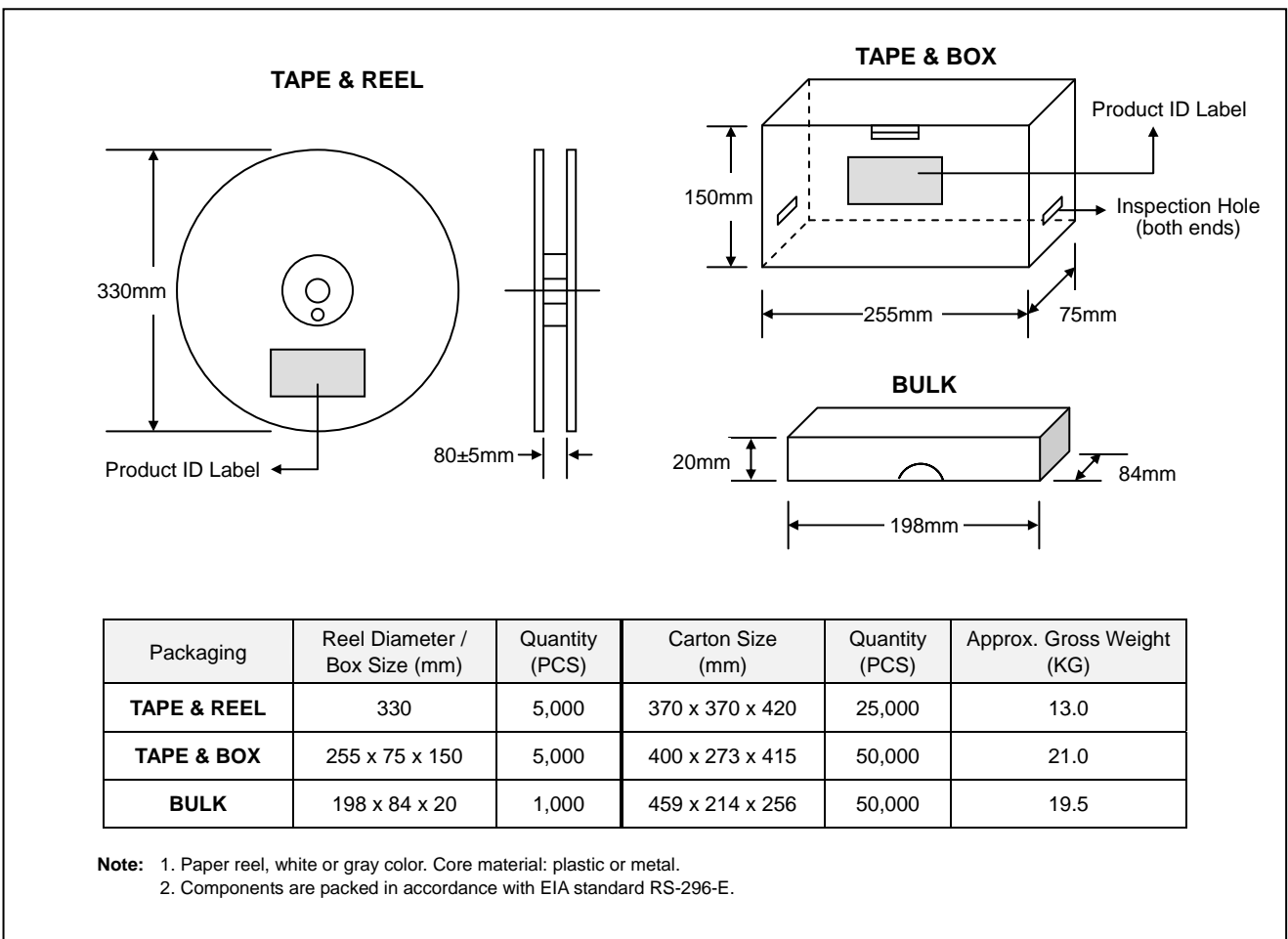
## MARKING INFORMATION



## TAPING SPECIFICATIONS




## PACKAGING INFORMATION



## ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
1N581x-T3	DO-41	5000/Tape & Reel
<b>1N581x-TB</b>	DO-41	5000/Tape & Box
1N581x	DO-41	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, 1N5817-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.*