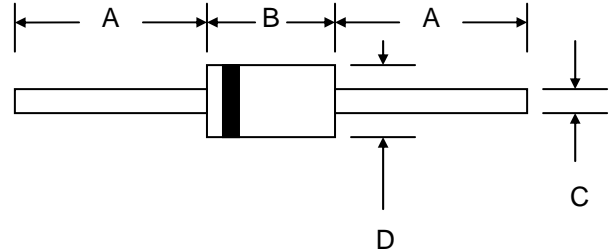


Features

- 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°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}	20	30	40	V
Working Peak Reverse Voltage	V _{RWM}				
DC Blocking Voltage	V _R				
RMS Reverse Voltage	V _{R(RMS)}	14	21	28	V
Average Rectified Output Current (Note 1) @T _L = 90°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 = 1.0A @I _F = 3.0A	V _{FM}	0.450 0.750	0.550 0.875	0.600 0.900	V
Peak Reverse Current @T _A = 25°C At Rated DC Blocking Voltage @T _A = 100°C	I _{RM}	1.0 10			mA
Typical Junction Capacitance (Note 2)	C _J	110			pF
Thermal Resistance, Junction to Ambient (Note 3)	R _{JA}	50			°C/W
Thermal Resistance, Junction to Lead (Note 3)	R _{JL}	15			
Operating Temperature Range	T _J	-65 to +125			°C
Storage Temperature Range	T _{STG}	-65 to +150			°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.

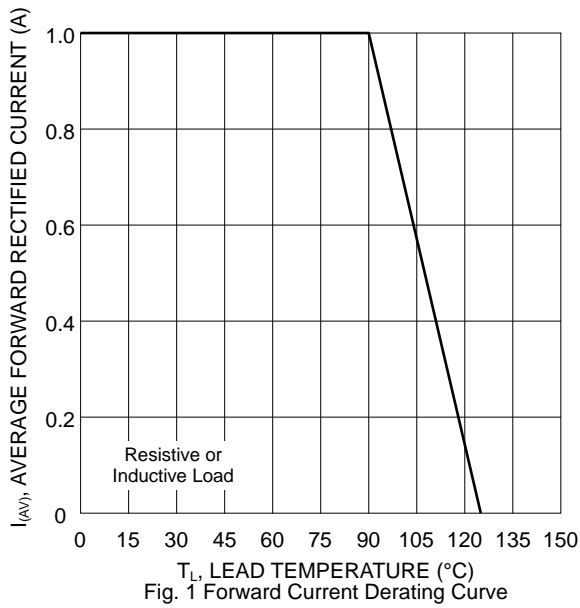


Fig. 1 Forward Current Derating Curve

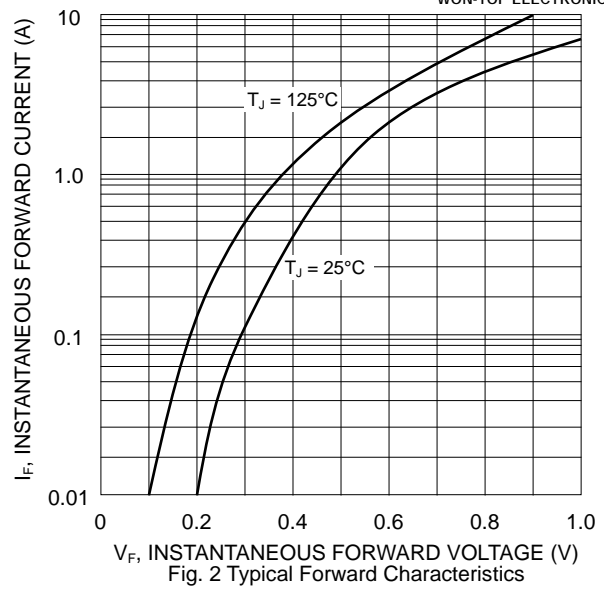


Fig. 2 Typical Forward Characteristics

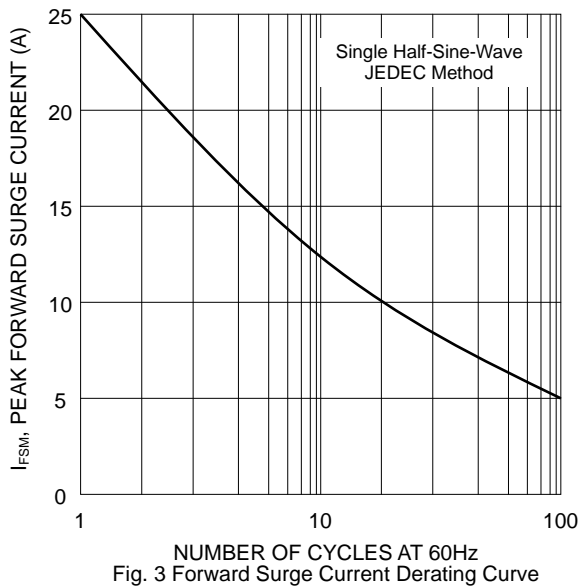


Fig. 3 Forward Surge Current Derating Curve

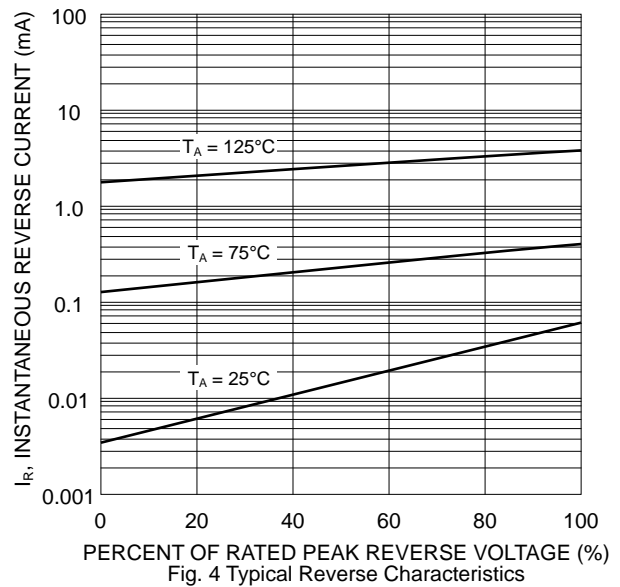


Fig. 4 Typical Reverse Characteristics

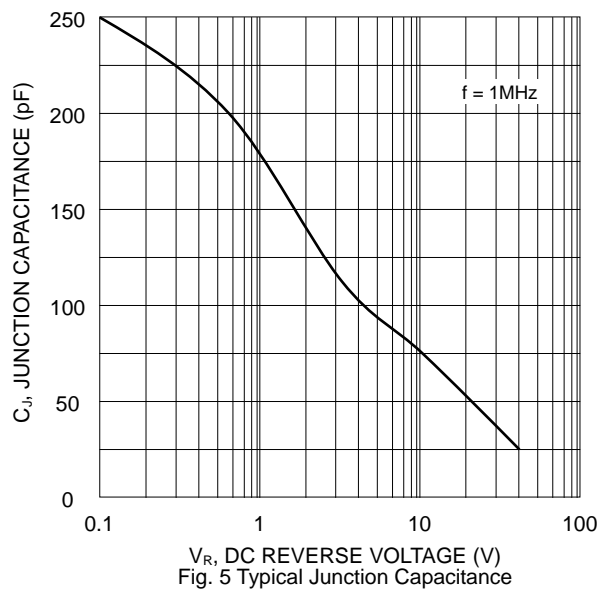


Fig. 5 Typical Junction Capacitance

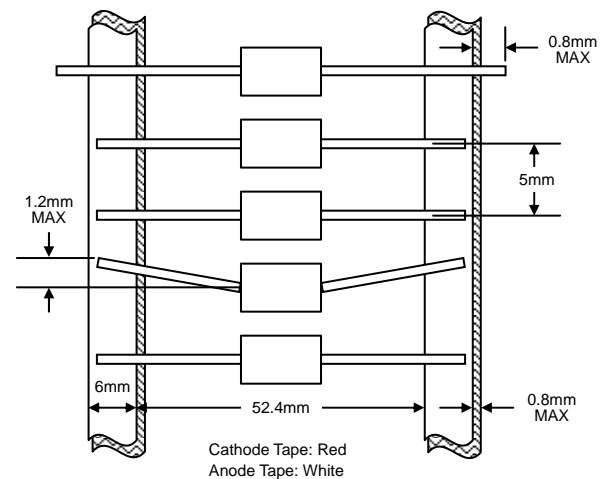
MARKING INFORMATION



Cathode
1N581x
x

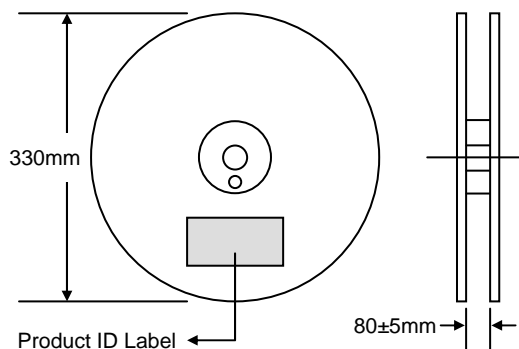
= Polarity Band
= Device Number
= 7, 8 or 9

TAPING SPECIFICATIONS

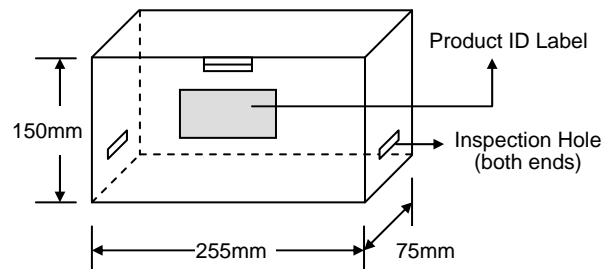


PACKAGING INFORMATION

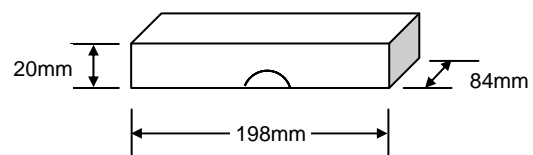
TAPE & REEL



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	13.0
TAPE & BOX	255 x 75 x 150	5,000	400 x 273 x 415	50,000	21.0
BULK	198 x 84 x 20	1,000	459 x 214 x 256	50,000	19.5

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
1N581x-T3	DO-41	5000/Tape & Reel
1N581x-TB	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.