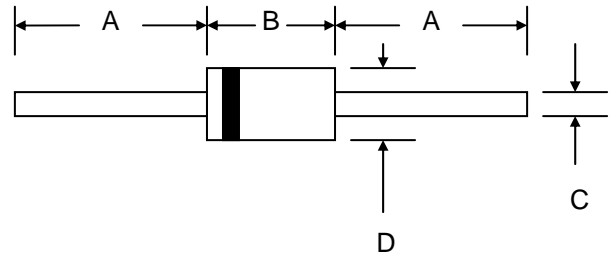


Features

- Schottky Barrier Chip
- Guard Ring for Transient and ESD Protection
- Surge Overload Rating to 80A Peak
- Low Power Loss, High Efficiency
- Ideally Suited for Use in High Frequency SMPS, Inverters and As Free Wheeling Diodes



Mechanical Data

- Case: DO-201AD, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 1.2 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-201AD		
Dim	Min	Max
A	25.4	—
B	7.20	9.50
C	1.20	1.30
D	4.80	5.30
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	1N5820	1N5821	1N5822	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) @ $T_L = 95^\circ\text{C}$	I_o	3.0			A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	80			A
Forward Voltage @ $I_F = 3.0\text{A}$ @ $I_F = 9.4\text{A}$	V_{FM}	0.475 0.850	0.500 0.900	0.525 0.950	V
Peak Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$	I_{RM}	2.0 20			mA
Thermal Resistance, Junction to Ambient (Note 2)	R_{JA}	28			$^\circ\text{C}/\text{W}$
Thermal Resistance, Junction to Lead (Note 2)	R_{JL}	10			
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. Vertical PCB mounting with 12.7mm lead length on 63.5 x 63.5mm copper pad.

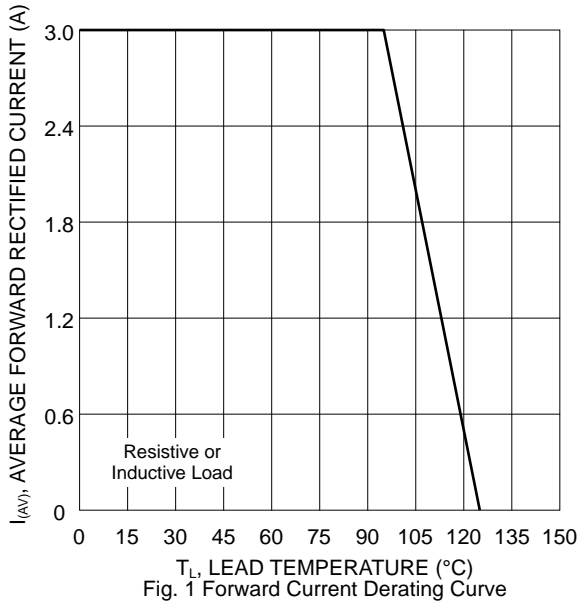


Fig. 1 Forward Current Derating Curve

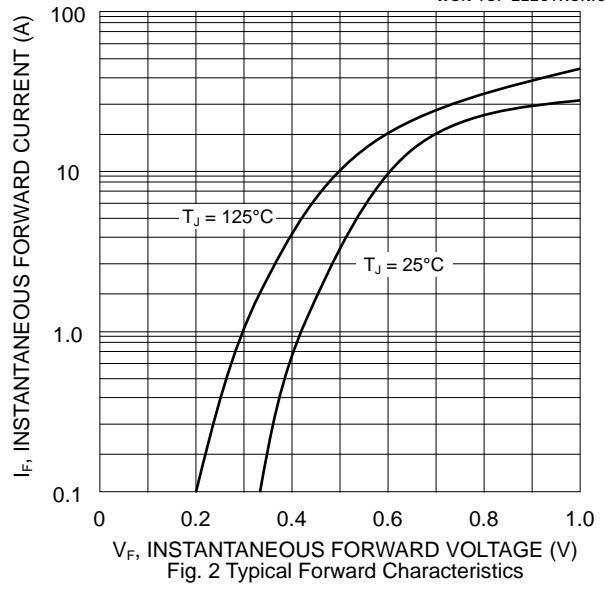


Fig. 2 Typical Forward Characteristics

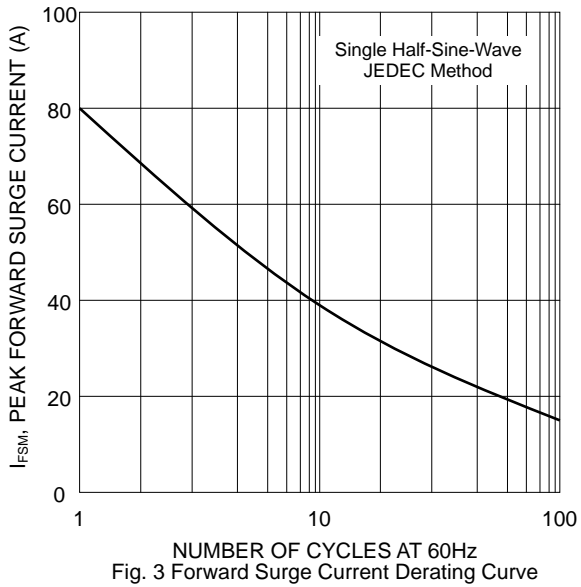


Fig. 3 Forward Surge Current Derating Curve

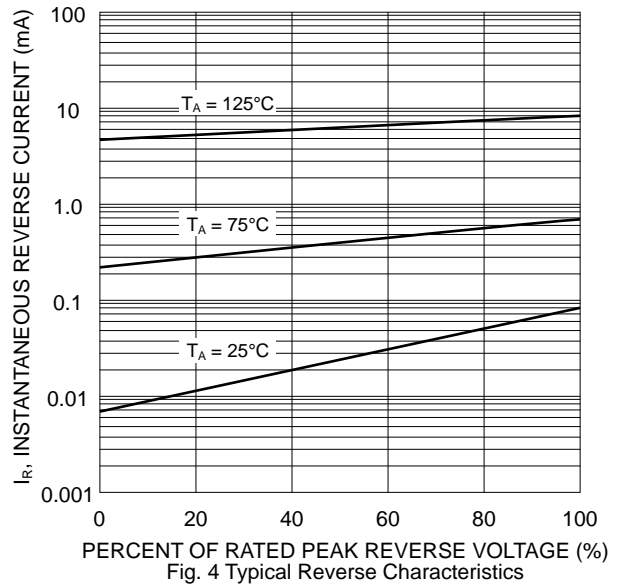


Fig. 4 Typical Reverse Characteristics

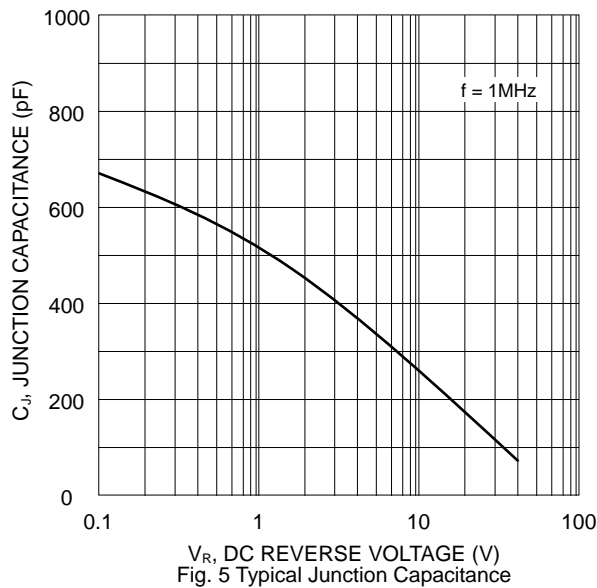
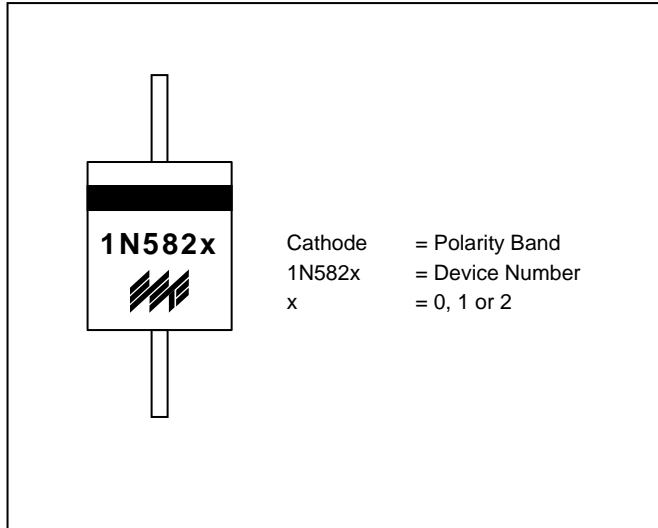
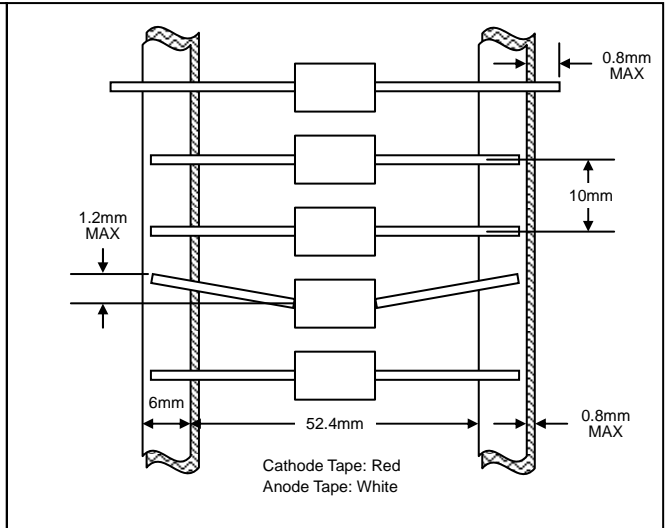


Fig. 5 Typical Junction Capacitance

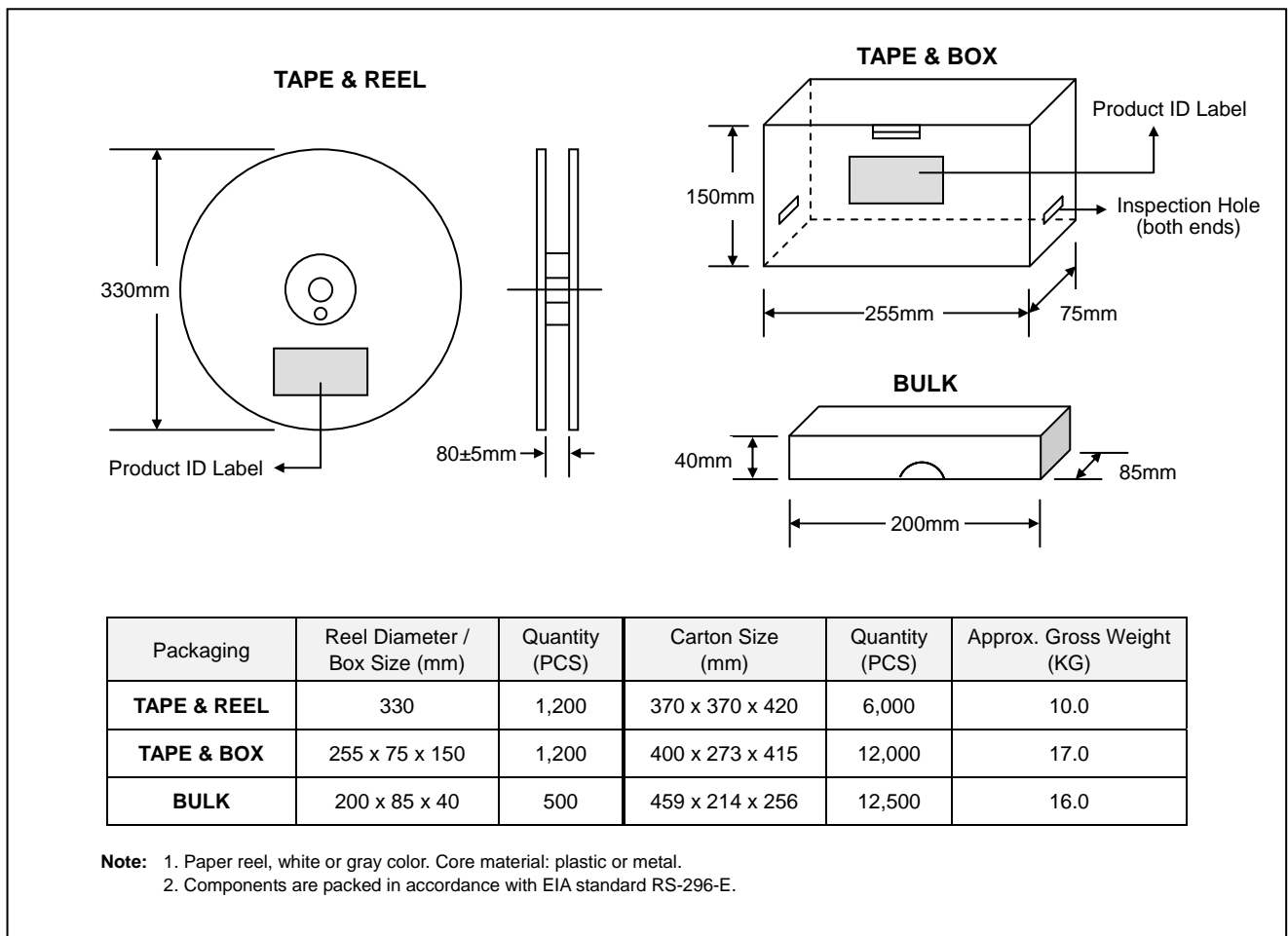
MARKING INFORMATION



TAPING SPECIFICATIONS




PACKAGING INFORMATION



ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
1N582x-T3	DO-201AD	1200/Tape & Reel
1N582x-TB	DO-201AD	1200/Tape & Box
1N582x	DO-201AD	500 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, 1N5820-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.