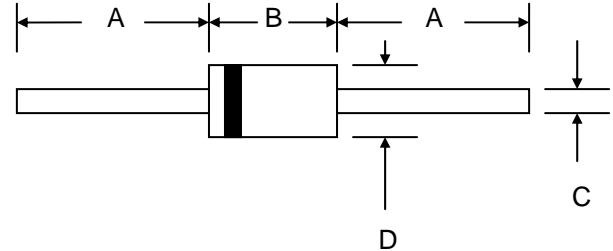


Features

- Diffused Junction
- Low Forward Voltage Drop
- High Surge Current Capability
- High Reliability
- 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°C unless otherwise specified

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

Characteristic	Symbol	SF51	SF52	SF53	SF54	SF55	SF56	SF57	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	50	100	150	200	300	400	600	V
Working Peak Reverse Voltage	V _{RWM}								
DC Blocking Voltage	V _R								
RMS Reverse Voltage	V _{R(RMS)}	35	70	105	140	210	280	420	V
Average Rectified Output Current (Note 1) @T _A = 50°C	I _O	5.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I _{FSM}	150							A
Forward Voltage @I _F = 5.0A	V _{FM}	0.95			1.3		1.7		V
Peak Reverse Current @T _A = 25°C At Rated DC Blocking Voltage @T _A = 100°C	I _{RM}	5.0			100				μA
Reverse Recovery Time (Note 2)	t _{rr}	35							nS
Typical Junction Capacitance (Note 3)	C _J	100			75				pF
Typical Thermal Resistance Junction to Ambient (Note 1)	R _{JA}	20							°C/W
Typical Thermal Resistance Junction to Lead (Note 1)	R _{JL}	5.0							
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 with I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A.
3. Measured at 1.0 MHz and Applied Reverse Voltage of 4.0V D.C.

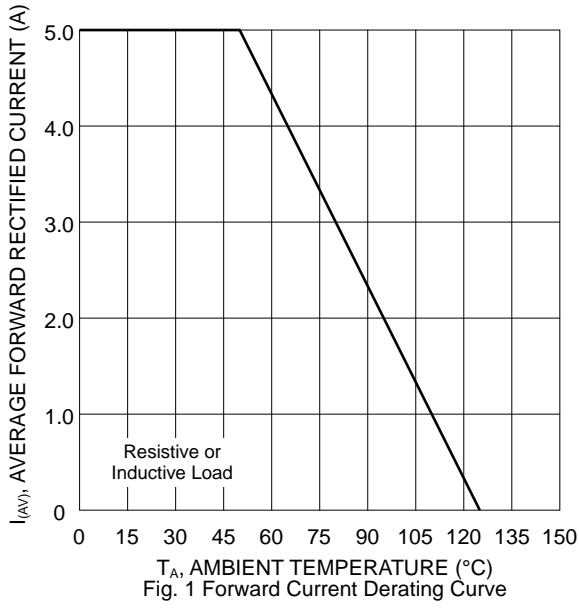


Fig. 1 Forward Current Derating Curve

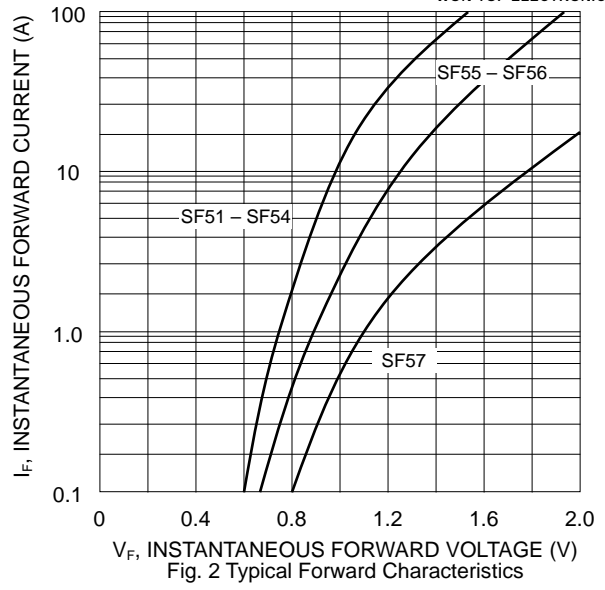


Fig. 2 Typical Forward Characteristics

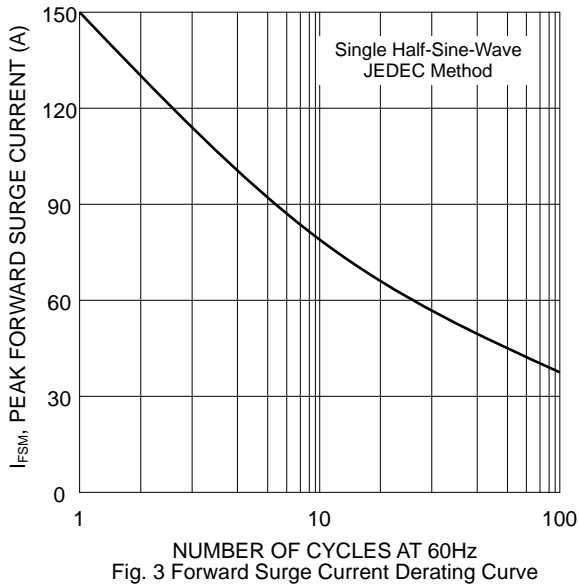


Fig. 3 Forward Surge Current Derating Curve

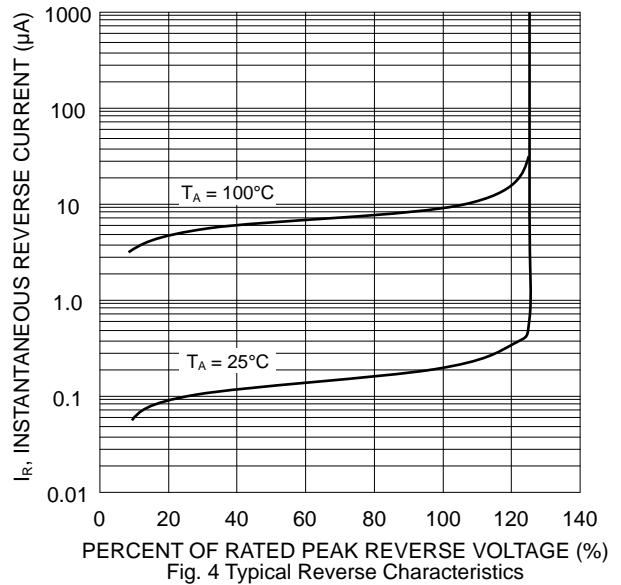


Fig. 4 Typical Reverse Characteristics

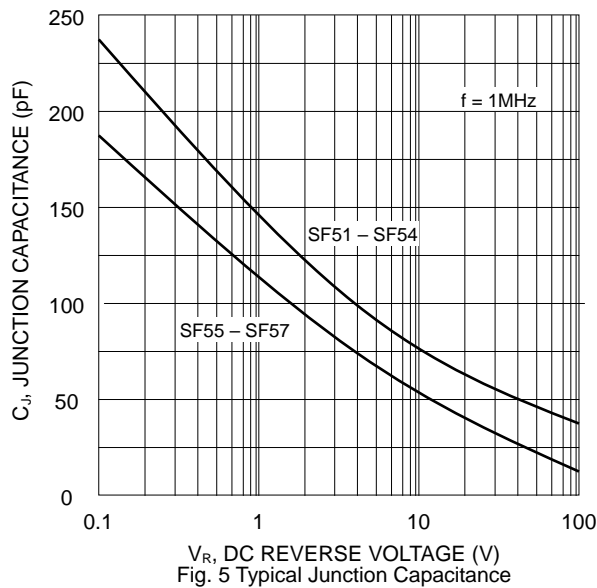
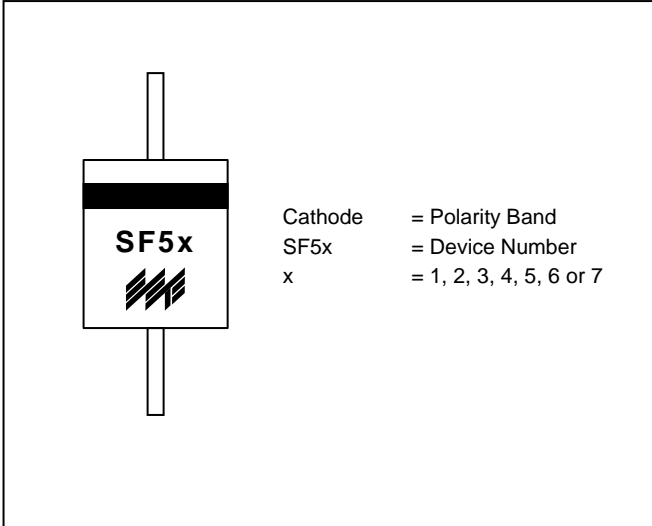
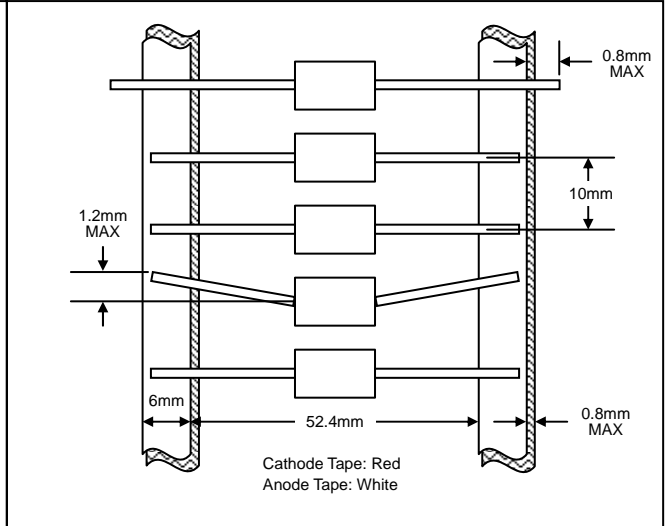


Fig. 5 Typical Junction Capacitance

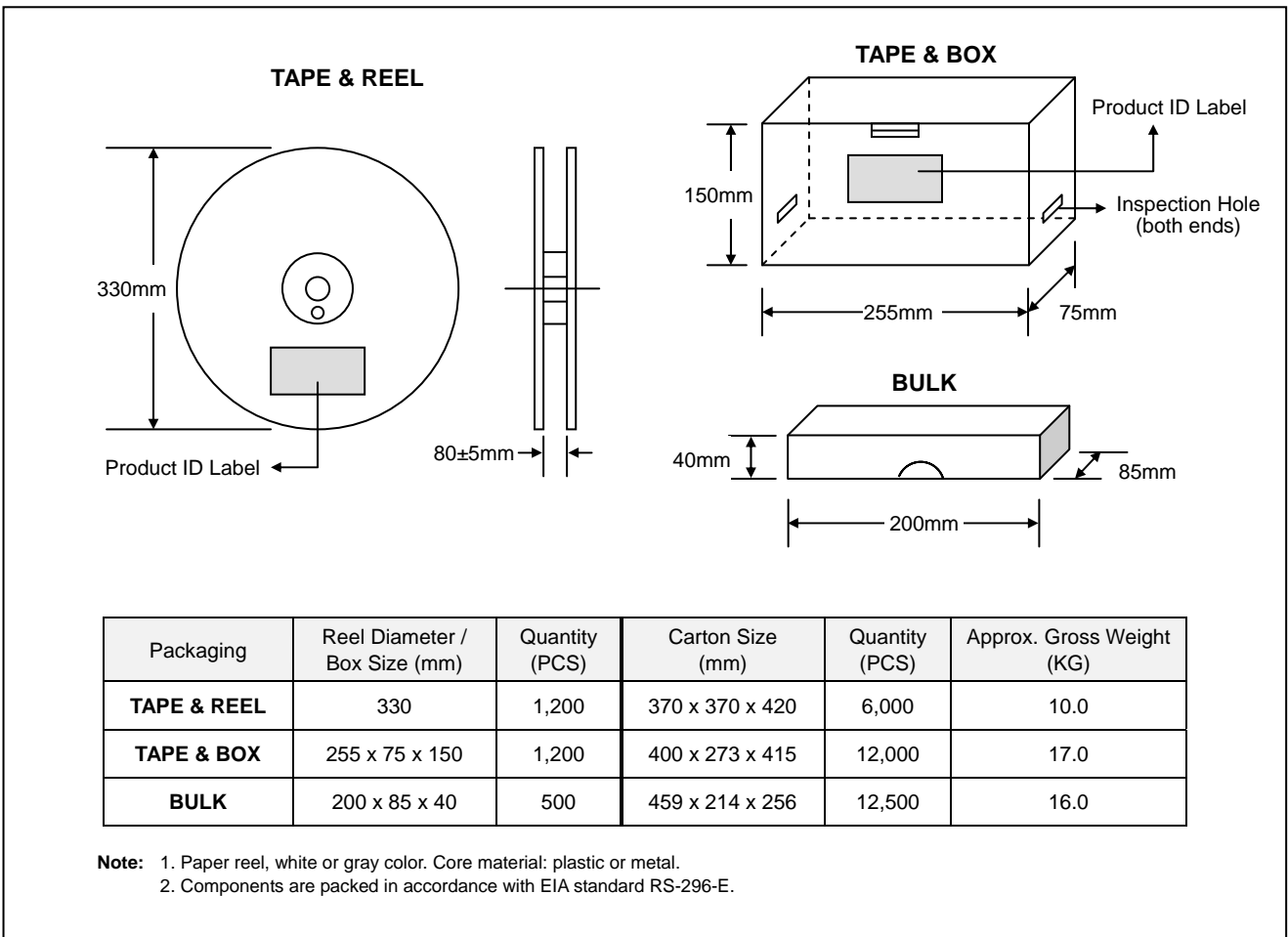
MARKING INFORMATION



TAPING SPECIFICATIONS




PACKAGING INFORMATION



ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
SF5x-T3	DO-201AD	1200/Tape & Reel
SF5x-TB	DO-201AD	1200/Tape & Box
SF5x	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, SF51-TB-LF.**

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