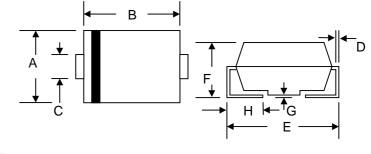




1.0A SURFACE MOUNT GLASS PASSIVATED FAST RECOVERY DIODE

Features

- Glass Passivated Die Construction
- Ideally Suited for Automatic Assembly
- Low Forward Voltage Drop, High Efficiency
- Surge Overload Rating to 30A Peak
- Low Power Loss
- Fast Recovery Time
- Plastic Case Material has UL Flammability Classification Rating 94V-O



Mechanical Data

- Case: SMB/DO-214AA, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.093 grams (approx.)
- Lead Free: For RoHS / Lead Free Version, Add "-LF" Suffix to Part Number, See Page 4

SMB/DO-214AA					
Dim	Min	Max			
Α	3.30	3.94			
В	4.06 4.70				
С	1.91	2.11			
D	0.152	0.305			
Е	5.08	5.59			
F	2.13	2.44			
G	0.051	0.203			
н	0.76	1.27			
All Dimensions in mm					

Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

Characteristic	Symbol	FR1A	FR1B	FR1D	FR1G	FR1J	FR1K	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	Vrrm Vrwm Vr	50	100	200	400	600	800	V
RMS Reverse Voltage	VR(RMS)	35	70	140	280	420	560	V
Average Rectified Output Current $@T_L = 90^{\circ}C$	lo	1.0					А	
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	30			A			
Forward Voltage $@I_F = 1.0A$	Vfm	1.30				V		
Peak Reverse Current $@T_A = 25^{\circ}C$ At Rated DC Blocking Voltage $@T_A = 125^{\circ}C$	IRM	5.0 300				μA		
Reverse Recovery Time (Note 1)	trr		1	50		250	500	nS
Typical Junction Capacitance (Note 2)	Cj			1	0			pF
Typical Thermal Resistance (Note 3)	RθJL			3	0			°C/W
Operating and Storage Temperature Range	Тj, Tsтg			-50 to	+150			°C

Note: 1. Measured with $I_F = 0.5A$, $I_R = 1.0A$, $I_{rr} = 0.25A$. See figure 5.

2. Measured at 1.0 MHz and applied reverse voltage of 4.0 V DC.

3. Mounted on P.C. Board with 8.0mm² land area.

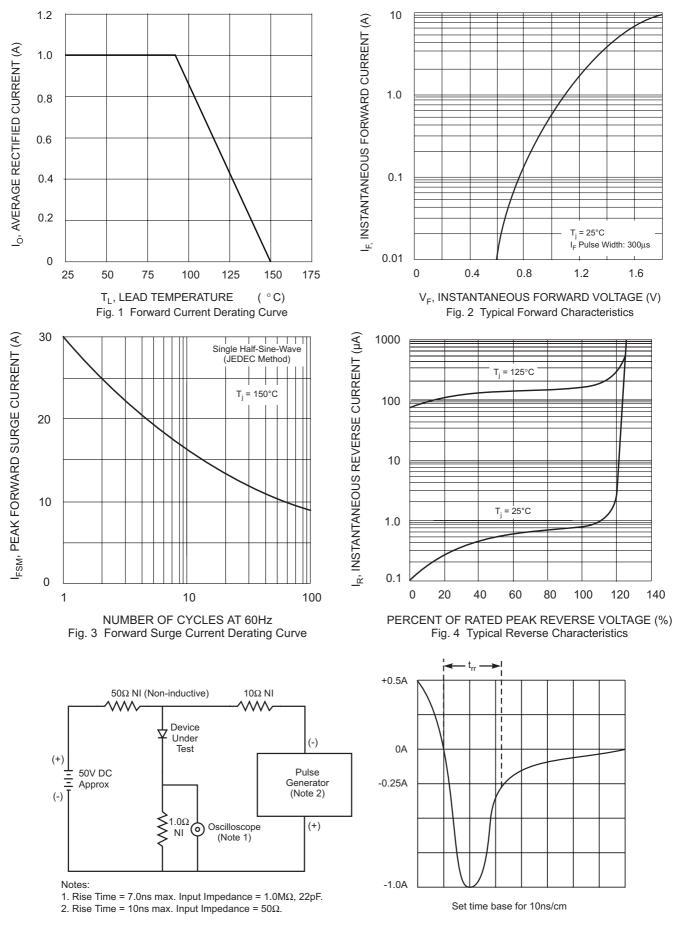
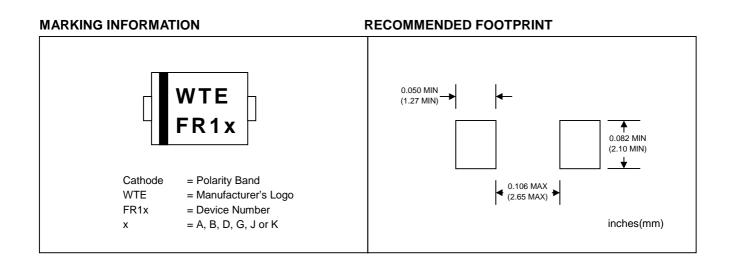
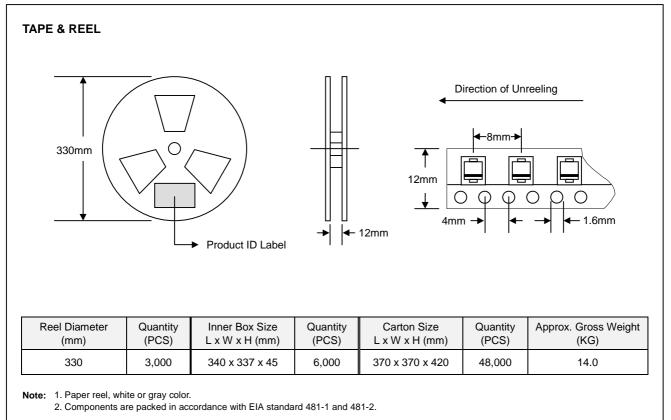


Fig. 5 Reverse Recovery Time Characteristic and Test Circuit



PACKAGING INFORMATION



ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
FR1A-T3	SMB	3000/Tape & Reel
FR1B-T3	SMB	3000/Tape & Reel
FR1D-T3	SMB	3000/Tape & Reel
FR1G-T3	SMB	3000/Tape & Reel
FR1J-T3	SMB	3000/Tape & Reel
FR1K-T3	SMB	3000/Tape & Reel

1. Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.

2. To order RoHS / Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, FR1A-T3-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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