

# FR2A – FR2M

### 2.0A 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 50A Peak
- Low Power Loss
- Fast Recovery Time
- Plastic Case Material has UL Flammability Classification Rating 94V-0



- 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

┝── в ─	<b>→</b>
	$ \begin{array}{c} & & & & \\ & & & & \\ & & & \\ & & $

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			
ш	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 @TA=25°C unless otherwise specified

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

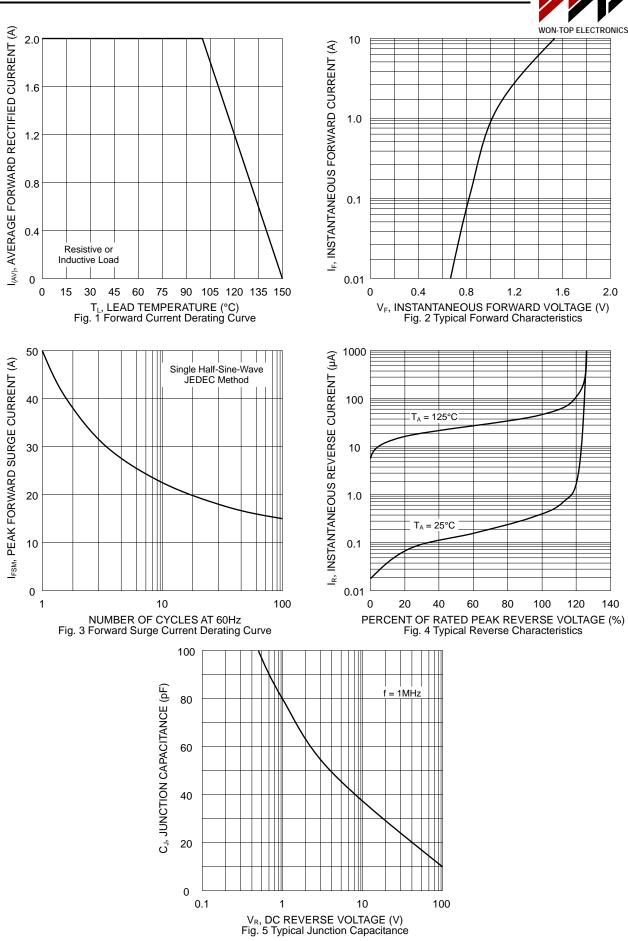
Characteristic		Symbol	FR2A	FR2B	FR2D	FR2G	FR2J	FR2K	FR2M	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage		Vrrm Vrwm Vr	50	100	200	400	600	800	1000	V
RMS Reverse Voltage		VR(RMS)	35	70	140	280	420	560	700	V
Average Rectified Output Current	@T <sub>L</sub> = 100°C	lo				2.0				А
Non-Repetitive Peak Forward Surge ( 8.3ms Single Half Sine-Wave Superin Rated Load (JEDEC Method)		IFSM				50				A
Forward Voltage	$@I_{F} = 2.0A$	Vfm	1.3					V		
Peak Reverse Current At Rated DC Blocking Voltage	@T <sub>A</sub> = 25°C @T <sub>A</sub> = 125°C	Iгм	5.0 200					μA		
Reverse Recovery Time (Note 1)		t <sub>rr</sub>	150 250 50		00	nS				
Typical Junction Capacitance (Note 2	)	CJ				50				pF
Thermal Resistance Junction to Ambi Thermal Resistance Junction to Lead	· · ·	R ja R jl				55 18				°C/W
Operating and Storage Temperature F	Range	TJ, TSTG			-{	55 to +15	60			°C

Note: 1. Measured with  $I_F = 0.5A$ ,  $I_R = 1.0A$ ,  $I_{RR} = 0.25A$ .

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

3. Mounted on PCB with 7.0mm x 7.0mm copper pads.

# FR2A – FR2M

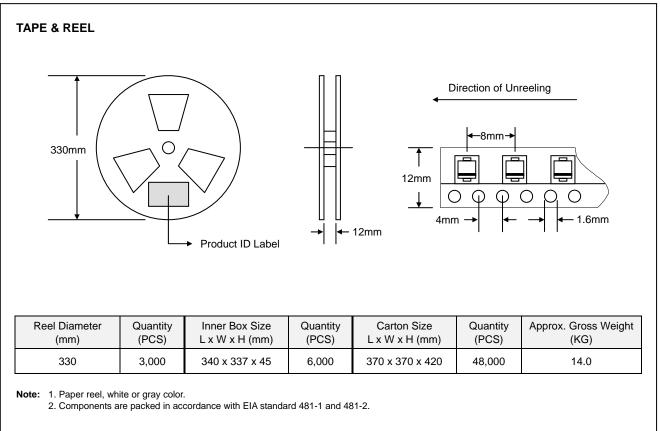


www.wontop.com



# MARKING INFORMATIONRECOMMENDED FOOTPRINTImage: constraint of the second secon

# PACKAGING INFORMATION





Product No.	Package Type	Shipping Quantity				
FR2A-T3	SMB	3000/Tape & Reel				
FR2B-T3	SMB	3000/Tape & Reel				
FR2D-T3	SMB	3000/Tape & Reel				
FR2G-T3	SMB	3000/Tape & Reel				
FR2J-T3	SMB	3000/Tape & Reel				
FR2K-T3	SMB	3000/Tape & Reel				
FR2M-T3	SMB	3000/Tape & Reel				

### **ORDERING INFORMATION**

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

 To order RoHS / Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, FR2A-T3-LF.

WON-TOP ELECTRONICS and *we are registered trademarks of Won-Top Electronics Co., Ltd (WTE). WTE has checked all information carefully and believes it to be correct and accurate. However, WTE cannot assume any responsibility for inaccuracies. Furthermore, this information does not give the purchaser of semiconductor devices any license under patent rights to manufacturer. WTE reserves the right to change any or all information herein without further notice.* 

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.

Won-Top Electronics Co., Ltd. No. 44 Yu Kang North 3rd Road,

No. 44 Yu Kang North 3rd Road, Chine Chen Dist., Kaohsiung 806, Taiwan Phone: 886-7-822-5408 or 886-7-822-5410 Fax: 886-7-822-5417 Email: sales@wontop.com Internet: http://www.wontop.com

