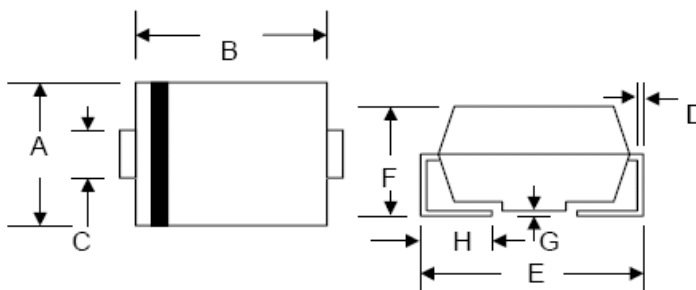


Technical Data
Data Sheet N0439, Rev. -

Green Products

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
- This is a Pb - Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request



SMB/DO-214AA				
Dim	Min	Max	Min	Max
A	3.30	3.94	0.130	0.155
B	4.06	4.70	0.160	0.185
C	1.91	2.11	0.075	0.083
D	0.152	0.305	0.006	0.012
E	5.08	5.59	0.2	0.220
F	2.13	2.44	0.084	0.096
G	0.051	0.203	0.002	0.008
H	0.76	1.27	0.029	0.05
in mm			In inch	

Mechanical Data

- Case: 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.)

Marking Diagram:

Where XXXXX is YYWWL



FR2A = Part Name
YY = Year
WW = Week
L = Lot Number

Cautions: Molding resin
Epoxy resin UL:94V-0

Ordering Information

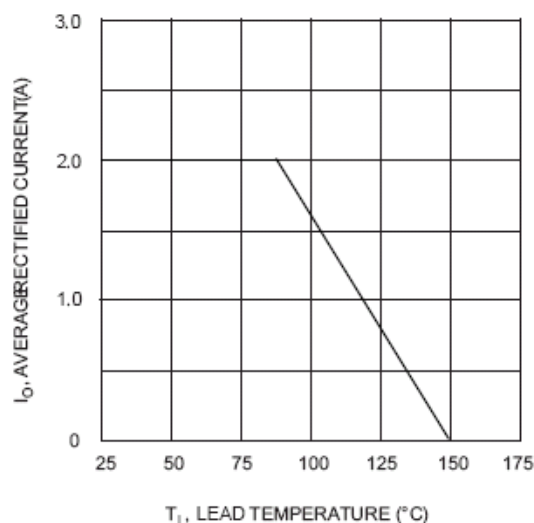
Device	Package	Shipping
FR2A-FR2K	SMB (Pb-Free)	3000pcs / reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.

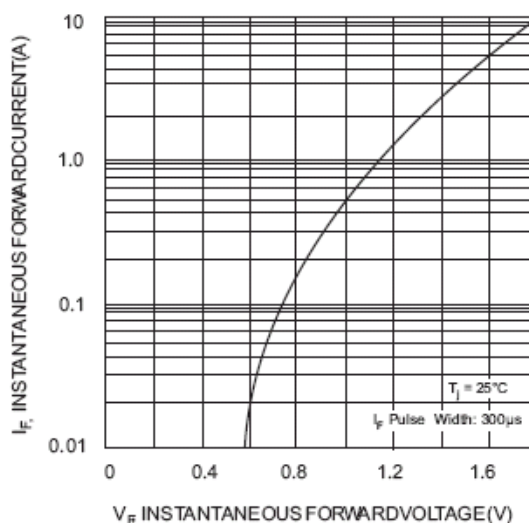
Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

Characteristic	Symbol	FR2A	FR2B	FR2D	FR2G	FR2J	FR2K	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	50	100	200	400	600	800	V
RMS Reverse Voltage	V _{R(RMS)}	35	70	140	280	420	560	V
Average Rectified Output Current @T _L = 90°C	I _O	2.0						A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	50						A
Forward Voltage @I _F = 2.0A	V _{FM}	1.30						V
Peak Reverse Current @T _A = 25°C At Rated DC Blocking Voltage @T _A = 125°C	I _{RM}	5.0 300						μA
Reverse Recovery Time (Note 1)	t _{rr}	150				250	500	nS
Typical Junction Capacitance (Note 2)	C _j	50						pF
Typical Thermal Resistance (Note 3)	R _{θJL}	20						K/W
Operating and Storage Temperature Range	T _j , T _{stg}	-50 to +150						°C

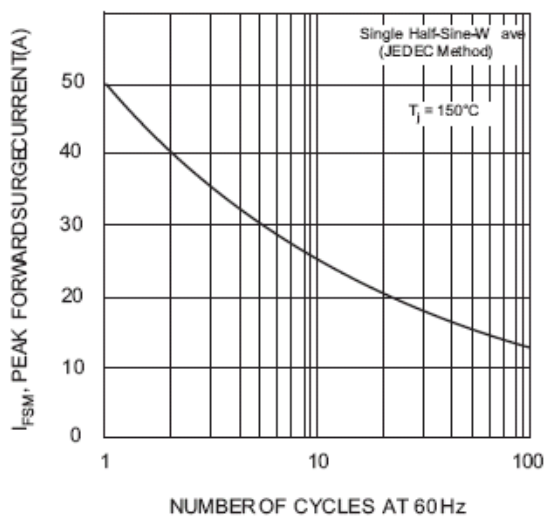
Note: 1. Measured with I_F = 0.5A, I_R = 1.0A, I_{rr} = 0.25A,
2. Measured at 1.0 MHz and applied reverse voltage of 4.0 V DC.
3. Mounted on P.C. Board with 8.0mm² land area.



T_L , LEAD TEMPERATURE ($^{\circ}C$)
Fig. 1 Forward Current Derating Curve



V_F , INSTANTANEOUS FORWARD VOLTAGE (V)
Fig. 2 Typical Forward Characteristics



NUMBER OF CYCLES AT 60Hz
Fig. 3 Forward Surge Current Derating Curve

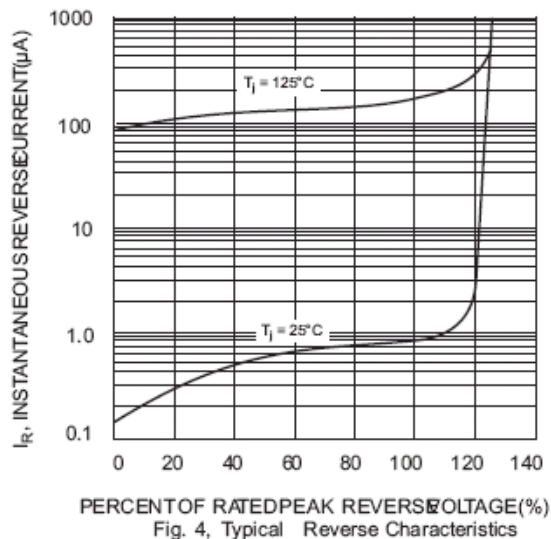
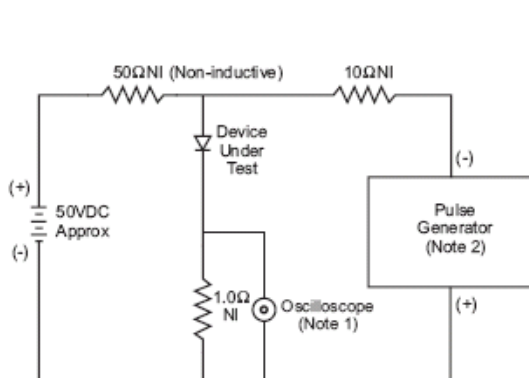


Fig. 4, Typical Reverse Characteristics



Notes:
1. Rise Time= 7.0ns max. Input Impedance= 1.0M Ω , 22pF.
2. Rise Time= 10ns max. Input Impedance= 50 Ω .

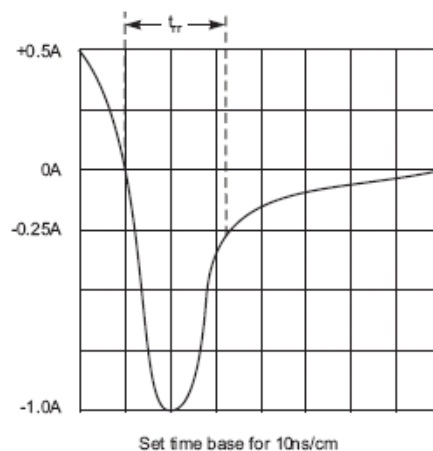


Fig. 5 Reverse Recovery Time Characteristic and Test Circuit

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