



THE DATASHEET OF RS1BTR



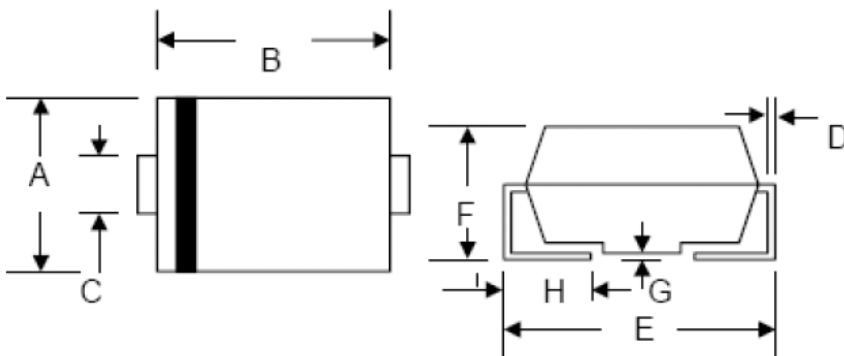
RS1A-RS1M SURFACE MOUNT SUPER FAST RECTIFIER

Features:

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Fast switching for high efficiency
- Low reverse leakage
- Built-in strain relief, ideal for automated placement
- High forward surge current capability
- High temperature soldering guaranteed: 250 C/10 seconds at terminals
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Mechanical Data:

- Case: JEDEC DO-214AC molded plastic body
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.06 grams

Mechanical Dimensions: In inches / mm


Dim.	SMA/DO-214AC			
	Min.	Max.	Min.	Max.
A	2.18	2.90	0.086	0.114
B	3.99	4.60	0.157	0.181
C	1.29	1.70	0.508	0.067
D	0.152	0.305	0.006	0.012
E	4.70	5.31	0.185	0.209
F	1.70	2.50	0.067	0.098
G	0.051	0.203	0.002	0.008
H	0.76	1.55	0.030	0.610
	In mm		In inch	

SMA



Marking Diagram:

Where XXXXX is YYWWL



RS1A = Part Name
YY = Year
WW = Week
L = Lot Number

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

Ordering Information

Device	Package	Shipping
RS1A-RS1M	SMA (Pb-Free)	5000pcs / reel

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



RS1A-RS1M

Technical Data
Data Sheet N0988, Rev. A

Green Products

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

Characteristic	Symbol	RS1A	RS1B	RS1D	RS1G	RS1J	RS1K	RS1M	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	V _{R(RMS)}	35	70	140	280	420	560	700	V
Average Rectified Output Current @T _L = 90°C	I _o	1.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	30							A
Forward Voltage @I _F = 1.0A	V _{FM}	1.30							V
Peak Reverse Current @T _A = 25°C At Rated DC Blocking Voltage @T _A = 100°C	I _{RM}	5.0 50							μA
Reverse Recovery Time (Note 1)	t _r	150				250	500		nS
Typical Junction Capacitance (Note 2)	C _j	15							pF
Typical Thermal Resistance (Note 3)	R _{θJA}	50							°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +150							°C

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

- China - Germany - Korea - Singapore - United States •
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Technical Data
Data Sheet N0988, Rev. A

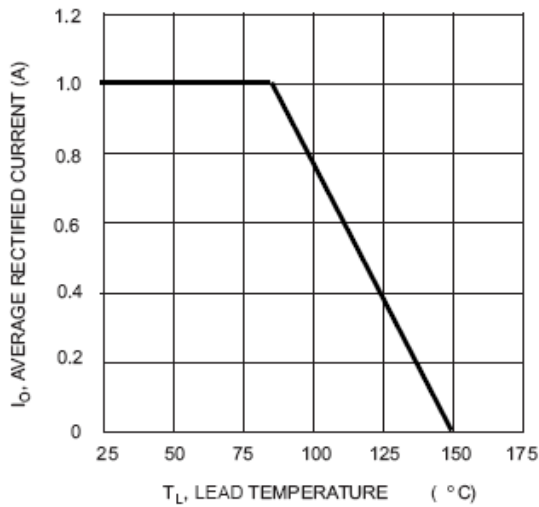


Fig. 1 Forward Current Derating Curve

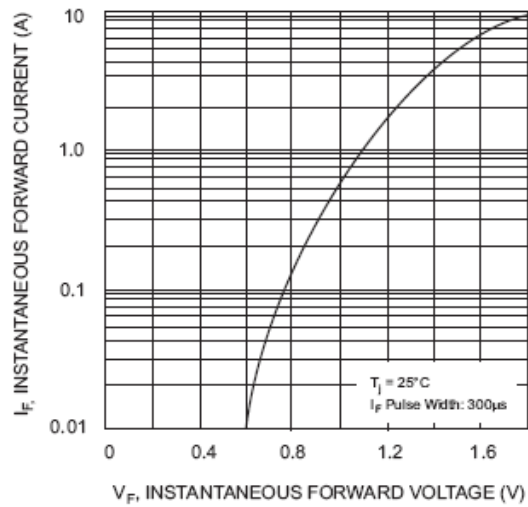


Fig. 2 Typical Forward Characteristics

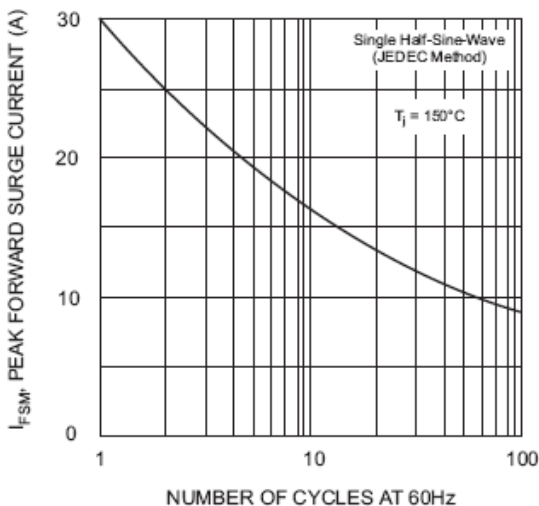


Fig. 3 Forward Surge Current Derating Curve

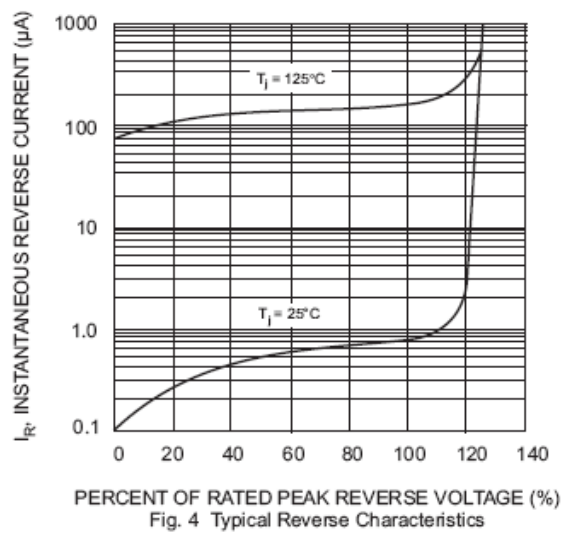
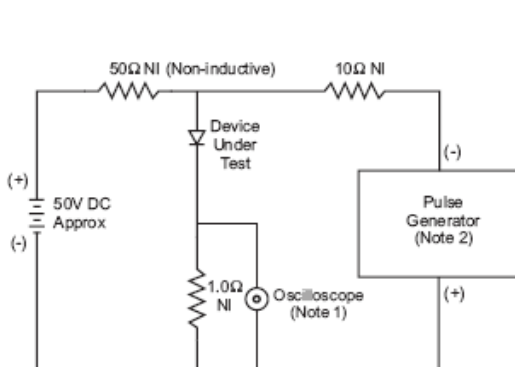


Fig. 4 Typical Reverse Characteristics



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

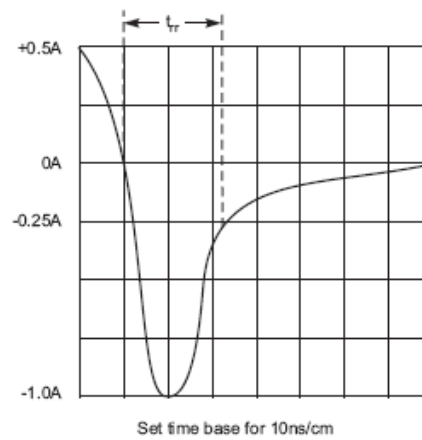


Fig. 5 Reverse Recovery Time Characteristic and Test Circuit



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