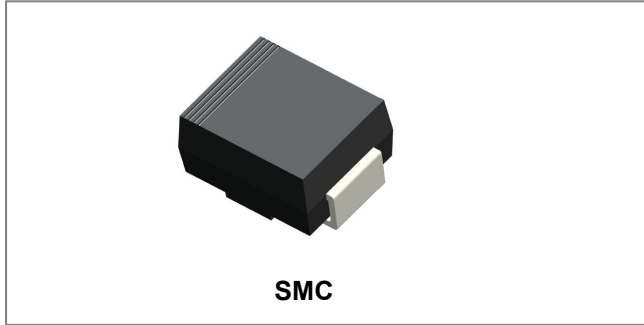




THE DATASHEET OF RS3A



RS3A-RS3M SURFACE MOUNT SUPER FAST RECTIFIER



Features

- Glass Passivated chip junction
- Built-in strain relief
- Fast switching speed for high efficiency
- High temperature soldering guaranteed: 250°C/10 second at terminals
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Circuit Diagram



Mechanical Data

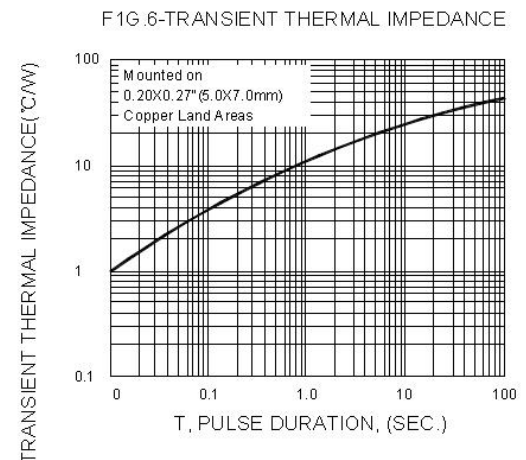
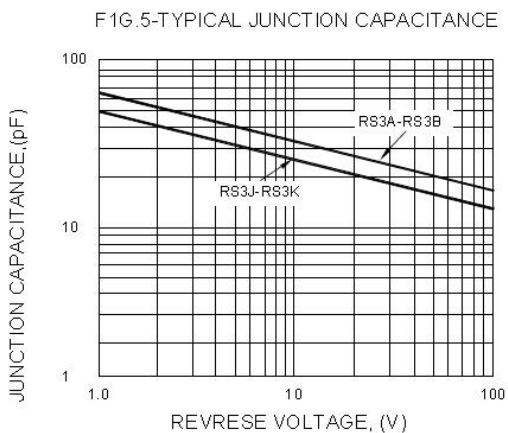
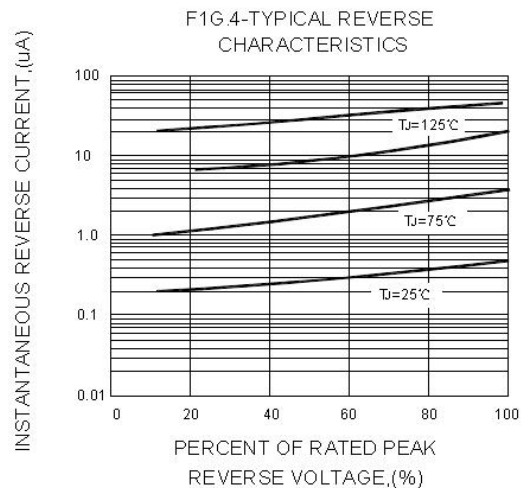
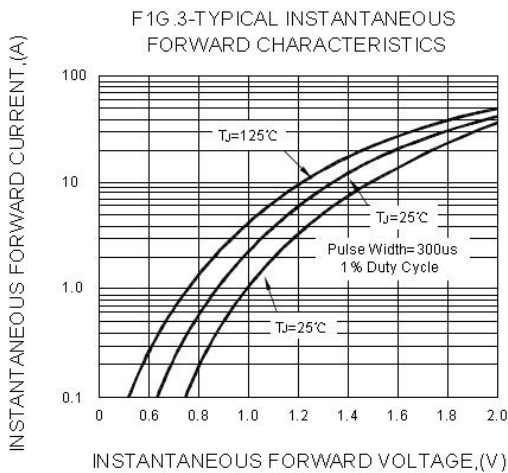
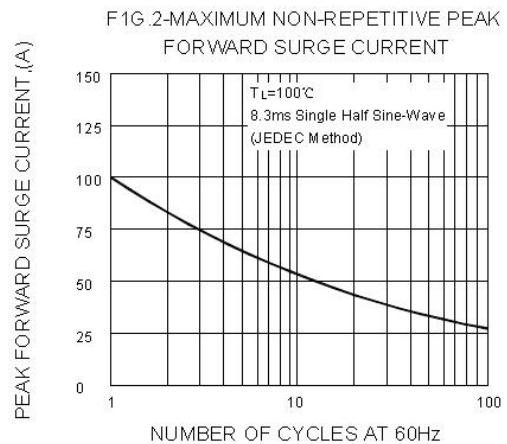
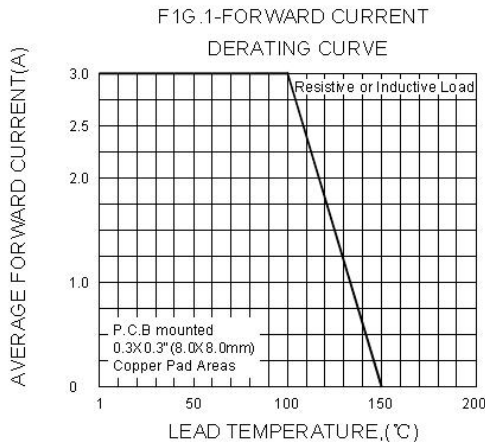
- Case: SMC molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Solder plated, solderable per MIL-STD-202E method208C
- Polarity: Color band denotes cathode end
- Weight: 0.21 grams

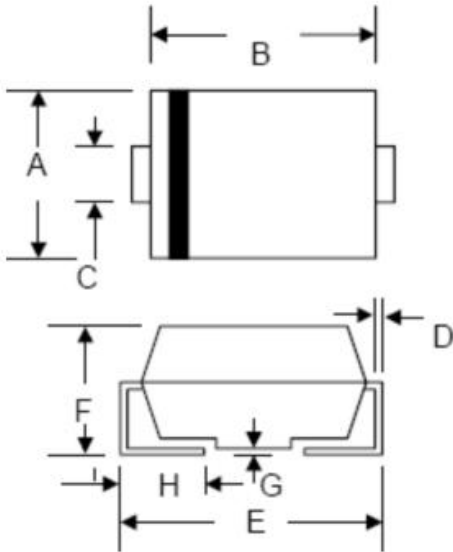
Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

Type Number	Symbol	RS3A	RS3B	RS3D	RS3G	RS3J	RS3K	RS3M	Units	
Peak Repetitive Reverse Voltage	V _{RRM}									
Working Peak Reverse Voltage	V _{RWM}	50	100	200	400	600	800	1000	V	
DC Blocking Voltage	V _{DC}									
RMS Reverse Voltage	V _{RMS}	35	70	140	280	420	560	700	V	
Average forward rectified output current @T _L = 100°C	I _O	3.0								A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	100								A
Forward Voltage @I _F =3.0A	V _F	1.3								V
Peak Reverse Current @T _A = 25°C	I _{RM}	10								μA
At Rated DC Blocking Voltage @T _A = 125°C		250								
Maximum Reverse Recovery Time (Note 1)	T _{rr}	150				250	500		ns	
Typical Junction Capacitance (Note 2)	C _J	60								pF
Typical Thermal Resistance Junction to Ambient (Note 3)	R _{θJA} R _{θJL}	50 15								°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-55 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 VDC
 3. Thermal resistance from Junction to ambient and from junction to lead mounted on PCB with 0.3×0.3” (8.0 × 8.0mm) copper pad areas

Ratings and Characteristics Curves



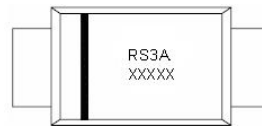
Mechanical Dimensions SMC


SYMBOL	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	5.59	6.22	0.220	0.245
B	6.60	7.11	0.260	0.280
C	2.90	3.20	0.114	0.126
D	0.152	0.305	0.006	0.012
E	7.75	8.13	0.305	0.320
F	2.00	2.62	0.079	0.103
G	-	0.203	-	0.008
H	0.76	1.52	0.030	0.060

Ordering Information

Device	Package	Shipping
RS3A-RS3M	SMC (Pb-Free)	3000pcs / reel

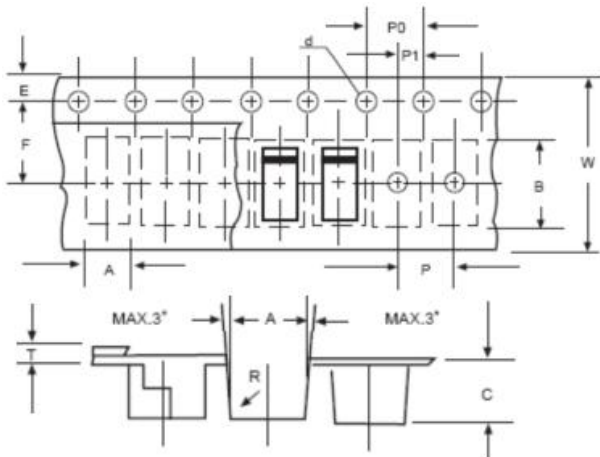
For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

Marking Diagram


Where XXXXX is YYWWL

RS3A = Type Number
 YY = Year
 WW = Week
 L = Lot Number

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

Carrier Tape Specification SMC


SYMBOL	Millimeters	
	Min.	Max.
A	5.90	6.10
B	8.20	8.40
C	2.40	2.60
d	1.40	1.60
E	1.40	1.60
F	7.60	7.70
P	7.90	8.10
P0	3.90	4.10
P1	3.90	4.10
T	-	0.600
W	15.80	16.20

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-  Cost Control Management
-  Shortage Management
-  Alternative Solution
-  Excess Inventory Management