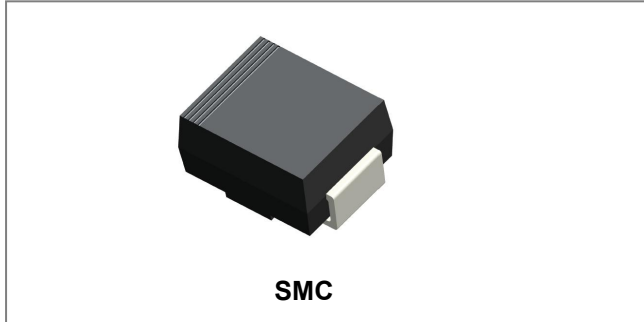


## RS3A-RS3M SURFACE MOUNT SUPER FAST RECTIFIER



### 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

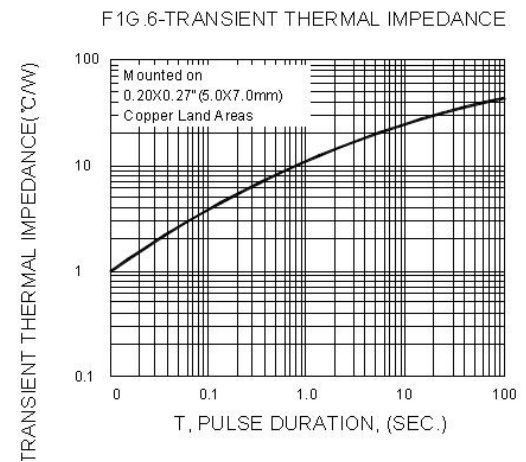
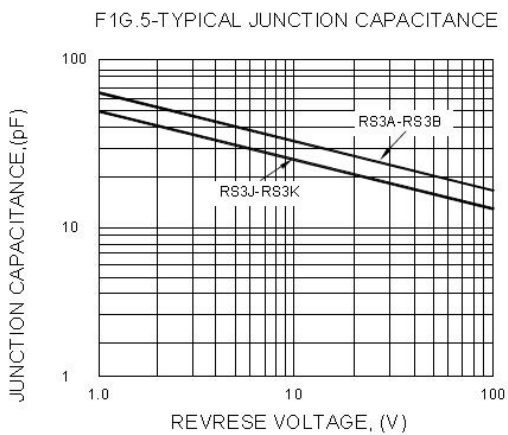
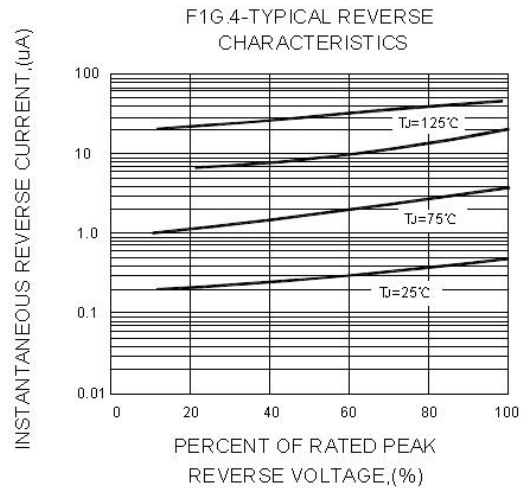
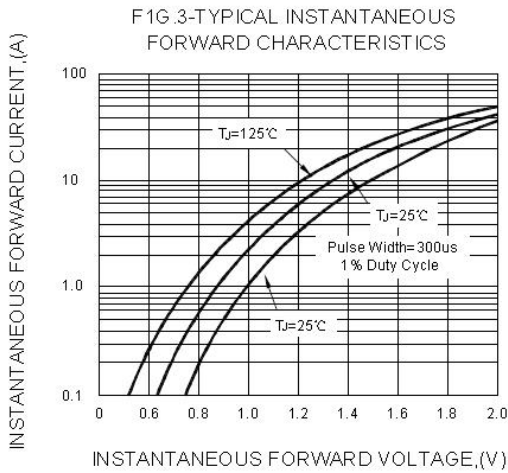
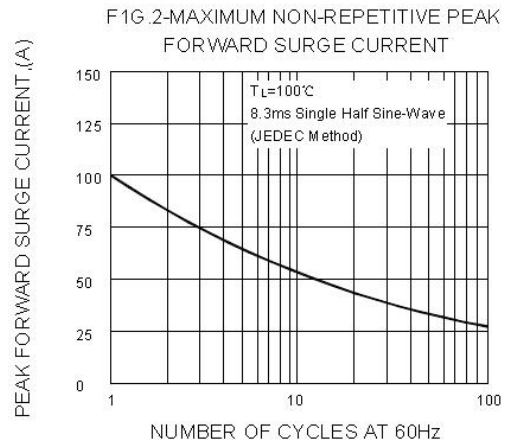
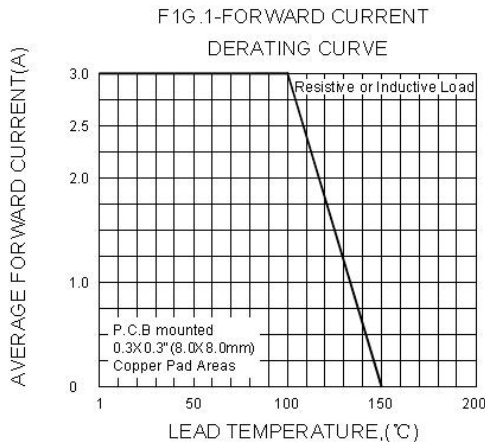
- Case: SMC molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Solder plated, solderable per MIL-STD-202E method208C
- Polarity: Color band denotes cathode end
- Weight: 0.21 grams

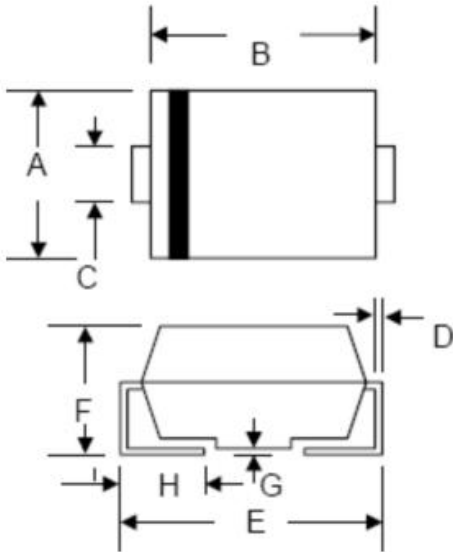
### Maximum Ratings and Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified

Type Number	Symbol	RS3A	RS3B	RS3D	RS3G	RS3J	RS3K	RS3M	Units	
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>									
Working Peak Reverse Voltage	V <sub>RWM</sub>	50	100	200	400	600	800	1000	V	
DC Blocking Voltage	V <sub>DC</sub>									
RMS Reverse Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V	
Average forward rectified output current @T <sub>L</sub> = 100°C	I <sub>O</sub>	3.0								A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	100								A
Forward Voltage @I <sub>F</sub> =3.0A	V <sub>F</sub>	1.3								V
Peak Reverse Current @T <sub>A</sub> = 25°C	I <sub>RM</sub>	10								μA
At Rated DC Blocking Voltage @T <sub>A</sub> = 125°C		250								
Maximum Reverse Recovery Time (Note 1)	T <sub>rr</sub>	150				250	500		ns	
Typical Junction Capacitance (Note 2)	C <sub>J</sub>	60								pF
Typical Thermal Resistance Junction to Ambient (Note 3)	R <sub>θJA</sub> R <sub>θJL</sub>	50 15								°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150								°C

**Note:** 1. Measured with I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>rr</sub>=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

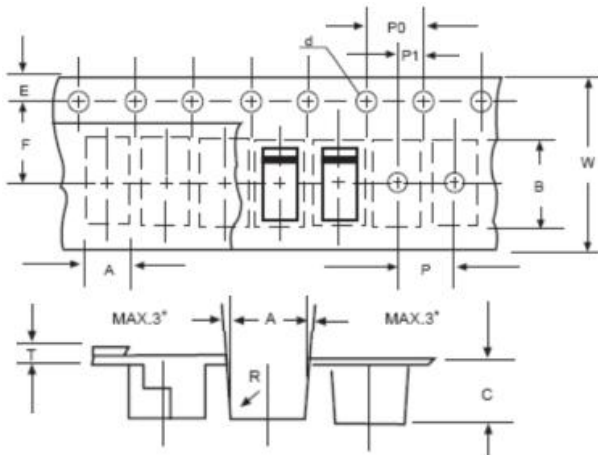
For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

**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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