

3.0A Surface Mount Fast Recovery Rectifier

Features

- Fast switching for high efficiency
- For surface mounted applications
- High temperature soldering: 250°C/10 seconds at terminals
- Plastic package has UL Flammability Classification 94V-0
- RoHS Compliance

SMC



Mechanical Data

Case:	SMC molded plastic body over passivated chip
Terminals:	Solder plated, solderable per MIL-STD-750, Method 2026
Polarity:	Color band denotes cathode band
Mounting Position:	Any
Weight:	0.21 gram

Maximum Ratings and Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)

Symbol	Description	RS3A	RS3B	RS3D	RS3G	RS3J	RS3K	RS3M	Unit	Conditions
VRRM	Max. Repetitive Peak Reverse Voltage	50	100	200	400	600	800	1000	V	
VRMS	Max. RMS Voltage	35	70	140	280	420	560	700	V	
VDC	Max. DC blocking voltage	50	100	200	400	600	800	1000	V	
IF(AV)	Average Forward Rectified Current	3.0							A	TL=90°C
IFSM	Peak Forward Surge Current	100.0							A	
VF	Max. Forward Voltage	1.3							V	IF(AV)=3.0A
IR	Reverse Current @ VR = VRRM	10.0							uA	TA = 25°C
		350							uA	TA = 125°C
Trr	Max. Reverse Recovery Time	150			250		500		ns	IF = 0.5A, IR = 1.0A, IRR = 0.25A.
RthJA	Typical Thermal Resistance	50.0							°C / W	Note 1
RthJL		15.0								
CJ	Typical Junction Capacitance	60.0							pF	F=1MHz, VR= 4V

Surface Mount Fast Recovery Rectifier

RS3A - RS3M

T_J, T_{STG}	Operating Junction and Storage Temperature Range	-55 to +150	°C	
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Note: 1. Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B with 0.3x 0.3" (8.0 x 8.0mm) copper pad areas.

Typical Characteristics Curves

Fig.1- Forward Current Derating Curve

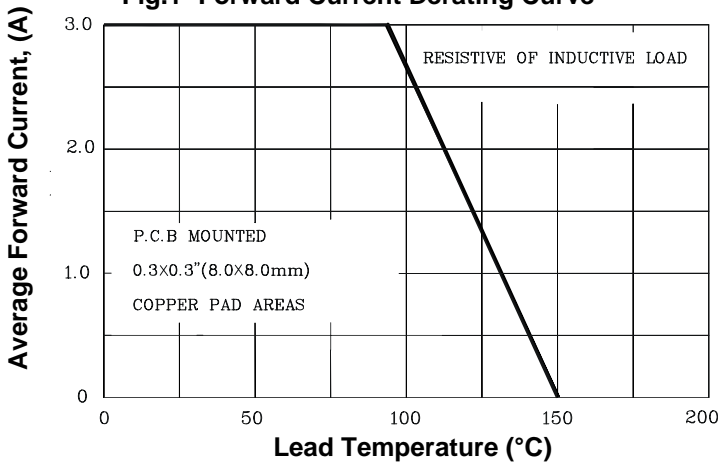


Fig.2- Maximum Non-Repetitive Forward Surge Current

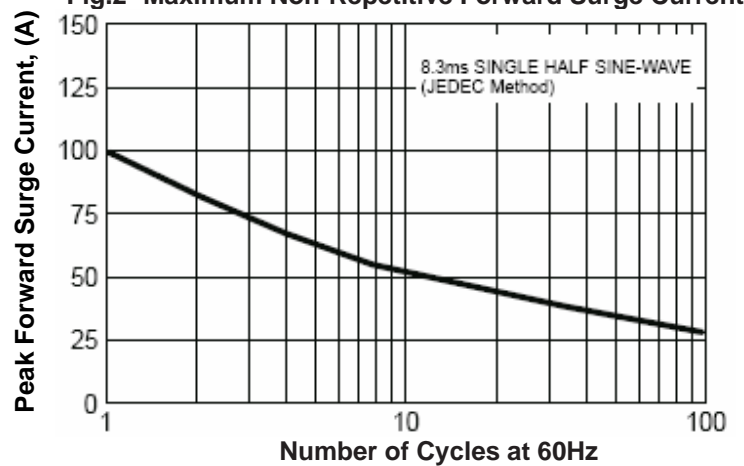


Fig.3-Typical Forward Characteristics

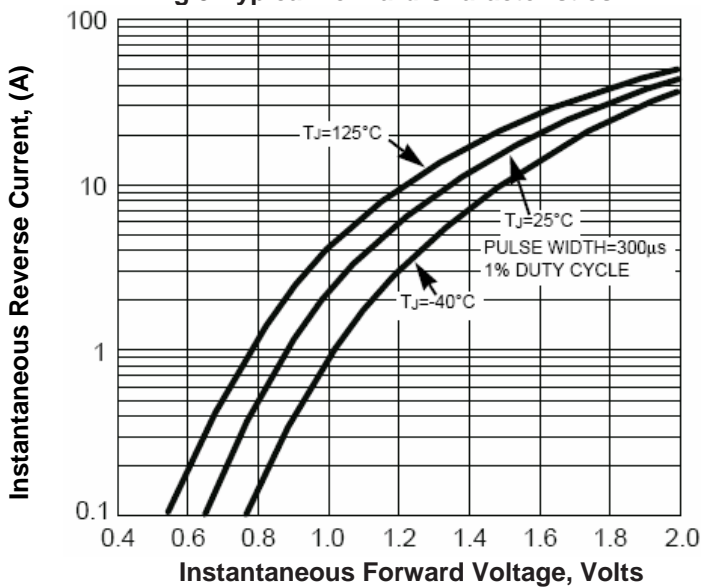
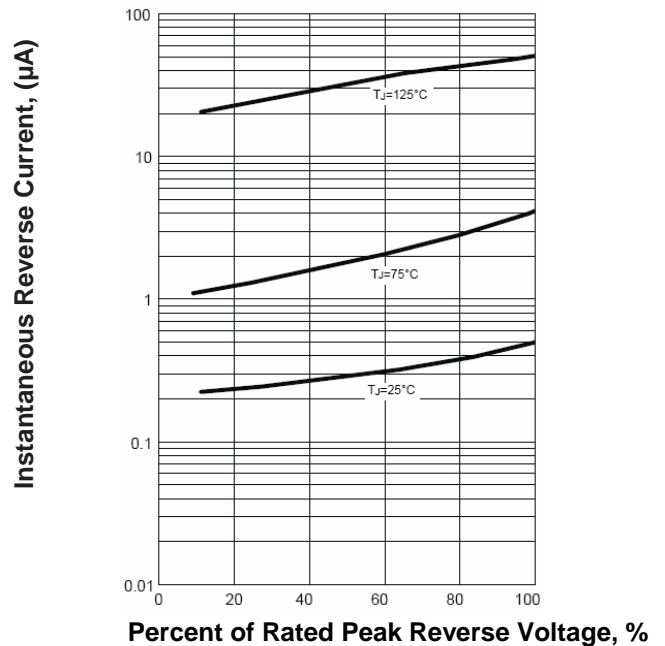
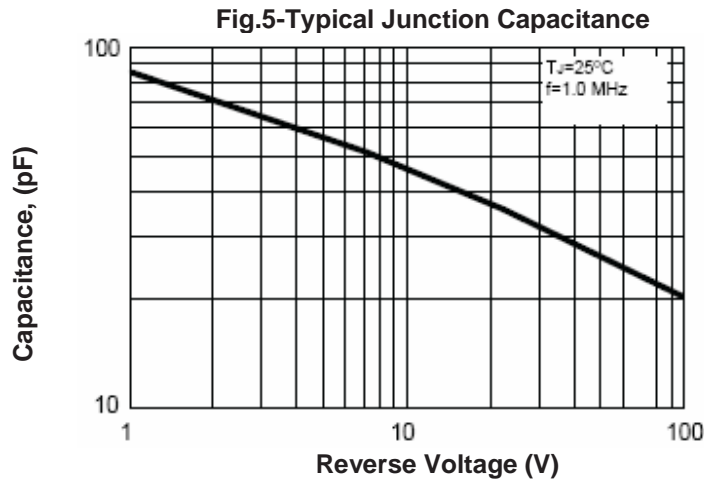


Fig.4- Typical Reverse Characteristics

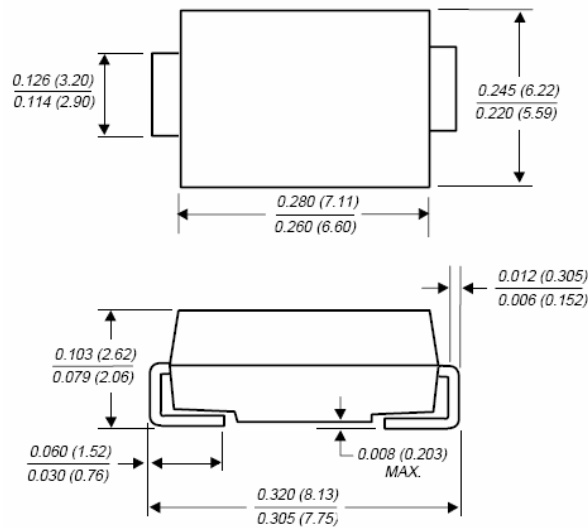


Surface Mount Fast Recovery Rectifier

RS3A - RS3M



Dimensions in inches (mm)



SMC

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