



SURFACE MOUNT FAST RECOVERY RECTIFIER RS3A ~ RS3M

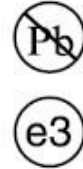
Surface Mount Fast Recovery Rectifier

Features

- Glass passivated chip junction
- Built in strain relief
- Fast switching speed for high efficiency
- High temperature soldering guaranteed:
260°C/10 seconds, 0.375" (9.5mm) lead length
- RoHS and REACH Compliance



DO-214AB (SMC)



Mechanical Data

Case:	Transfer molded plastic
Polarity:	Color band denots cathode end
Epoxy:	UL 94V-0 rate flame retardant
Lead:	Solder plated, solderable per MIL-STD-750 method 2026
Weight:	0.0007 ounce, 0.25 gram – DO-214AB (SMC)

Maximum Ratings ($T_{Ambient}=25^{\circ}C$ unless noted otherwise)

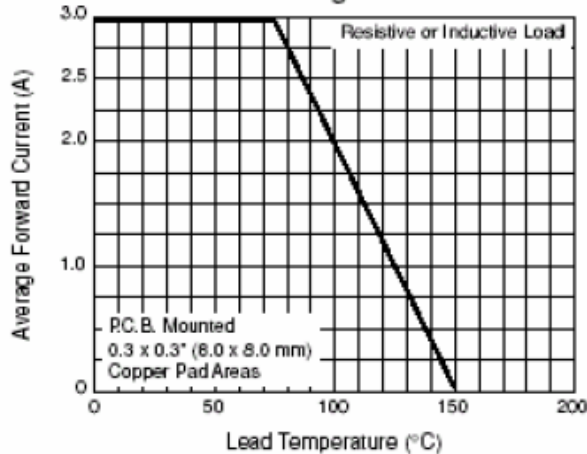
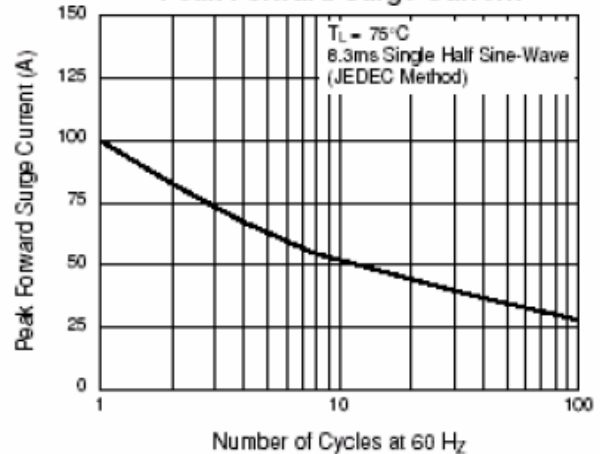
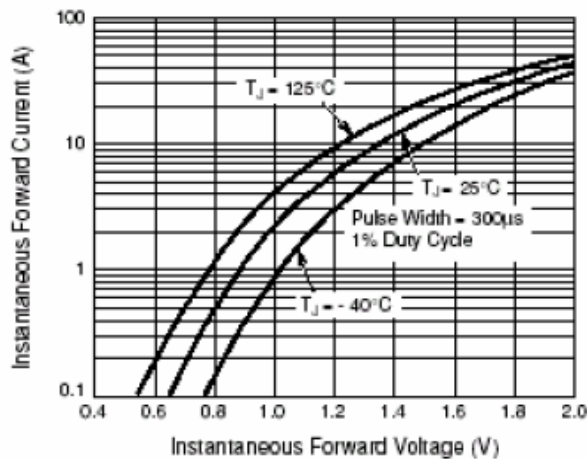
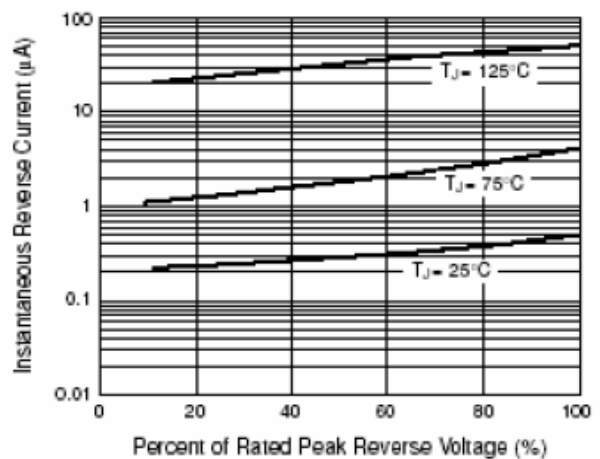
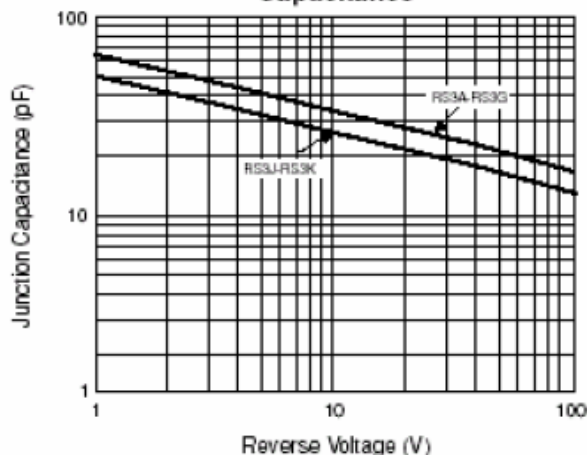
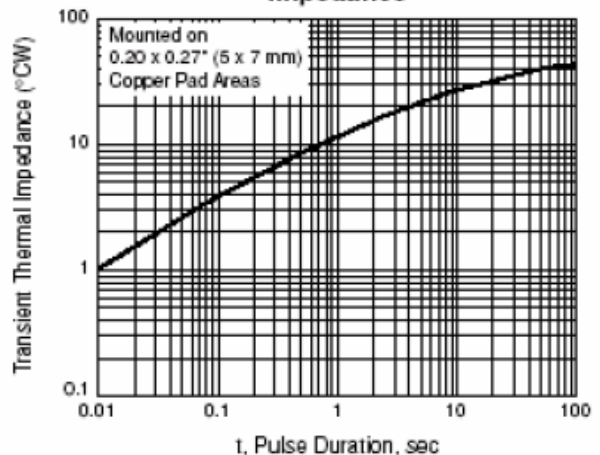
Symbol	Description	RS3A	RS3B	RS3D	RS3G	RS3H	RS3K	RS3M	Unit	Conditions
V_{RRM}	Max Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V	
V_{RMS}	Max RMS Voltage	35	70	140	280	420	560	700	V	
V_{DC}	Max DC Blocking Voltage	50	100	200	400	600	800	1000	V	
I_(AV)	Max Average Forward Rectified Current	3.0							A	$T_L=75^{\circ}C$
I_{FSM}	Peak Forward Surge Current	100							A	JEDEC method
T_J, T_{STG}	Operating and Storage Temperature Range	-55 to +150, -55 to +150							$^{\circ}C$	
Rθ-JA	Typical Thermal Resistance	50							$^{\circ}C/W$	Note 2
Rθ-JL		15								

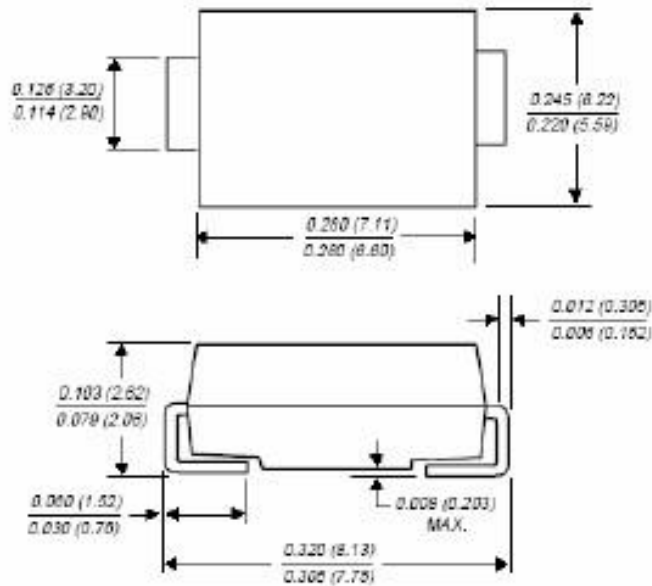
Electrical Characteristics ($T_{Ambient}=25^{\circ}C$ unless noted otherwise)

Symbol	Description	RS3A	RS3B	RS3D	RS3G	RS3J	RS3K	RS3M	Unit	Conditions
V_F	Max Instantaneous Forward Voltage	1.3							V	3.0 A
I_R	Max DC Reverse Current at Rated DC Blocking Voltage	10							μA	$T_A=25^{\circ}C$
		25							mA	$T_A=125^{\circ}C$
TRR	Maximum reverse recovery time	150		250			500		nS	Note 1
C_J	Typical Junction Capacitance	60							pF	Measured at 1.0MHz / 4.0V

Note:

1. Reverse recovery test conditions: $I_F=0.5A$, $I_R=1.0A$, $I_{RR}=0.25A$
2. Thermal resistance from junction to ambient and from junction to lead mounted on PCB

RS3A ~ RS3M
RATINGS AND CHARACTERISTIC CURVES RS3A THRU RS3M
Fig. 1 – Forward Current Derating Curve

Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current

Fig. 3 – Typical Instantaneous Forward Characteristics

Fig. 4 – Typical Reverse Characteristics

Fig. 5 – Typical Junction Capacitance

Fig. 6 – Typical Peak Transient Thermal Impedance


Dimensions in inches (mm)*Dimensions in inches and (millimeters)***DO-214AB (SMC)****Contact us:****US HEADQUARTERS****MEI SEMI INC.****2902** Corvin Drive, Santa Clara, CA95051, USA

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