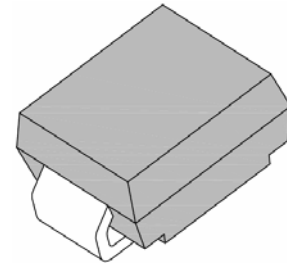


3.0A Surface Mount Rectifier

Features

- Glass passivated junction
- Plastic package has underwriters laboratory flammability classification 94 V-0
- High temperature soldering: 250 °C / 10 seconds at terminals
- RoHS compliant



SMB
(DO-214AA)



Mechanical Data

Case:	JEDEC DO-214AA molded plastic
Terminals:	Solder plated solderable per MIL-STD-750, Method 2026
Polarity:	cathode end indicated by color band
Weight:	0.003 Ounce, 0.093 gram

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

Symbol	Description	S3AB	S3BB	S3DB	S3GB	S3JB	S3KB	S3MB	Unit	Conditions
V_{RRM}	Maximum Repetitive Peak Reverse Voltage	50	100	200	400	600	800	1000	V	
V_{RMS}	Maximum RMS Voltage	35	70	140	280	420	560	700	V	
V_{DC}	Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V	
I_{AV}	Maximum Average Forward Rectified Current @TL=103°C	3.0							A	Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.3 x 0.3" (8.0 x 8.0 mm) copper pad area
I_{FSM}	Peak Forward Surge Current	100							A	8.3ms single half sine-wave superimposed on rated load (JEDEC method)
I_R	Maximum DC Reverse Current at Rated DC Blocking Voltage	5.0							μA	TA = 25 °C
		250								TA = 125 °C
T_J,T_{STG}	Operating Junction and Storage Temperature Range	-55 to 150							°C	

3.0A Surface Mount Rectifier

S3AB-S3MB

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

Symbol	Description	S3AB	S3BB	S3DB	S3GB	S3JB	S3KB	S3MB	Unit	Conditions
V_F	Maximum Instantaneous Forward Voltage	1.15							V	I_F at 2.5 A
T_{rr}	Typical Reverse Recovery Time	2.5							μS	$I_F = 0.5A, I_R = 1.0A, I_{rr} = 0.25A$
C_J	Typical Junction Capacitance	60							pf	Measured at 1.0 MHz and Applied $V_r = 4.0$ volts.
$R_{\theta-JA}$	Maximum Thermal Resistance	47							$^{\circ}C/W$	Mounted on 0.3" x 0.3" (8mmx8mm) copper pad area
$R_{\theta-JL}$		13								

Typical Characteristics Curves

Fig.1- Forward Current Derating Curve

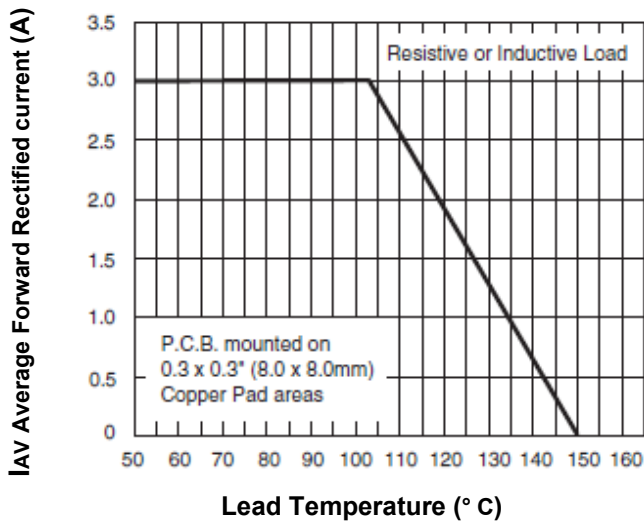
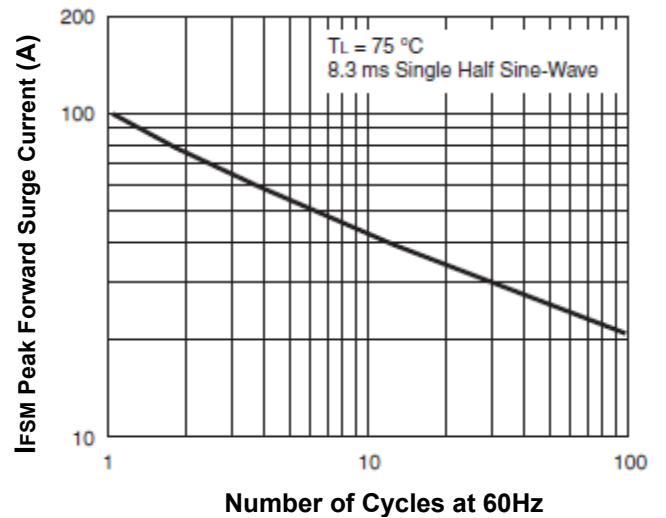


Fig.2-Max. Non-Repetitive Forward Surge Current



3.0A Surface Mount Rectifier

S3AB-S3MB

Fig.3- Typical Instantaneous Forward Characteristics

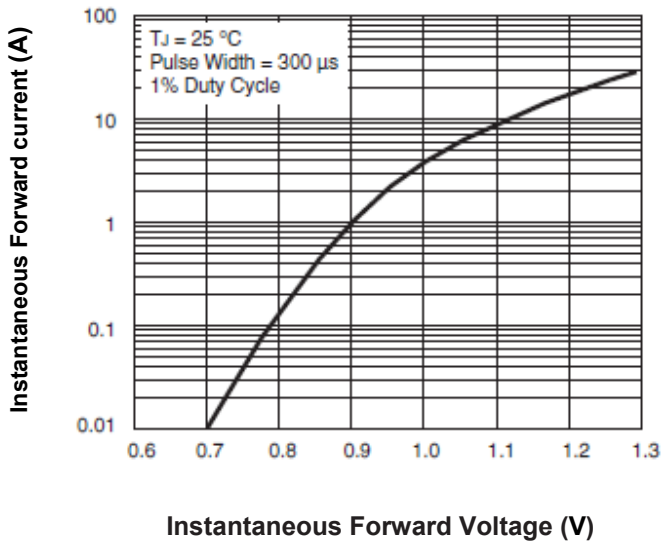


Fig.4- Typical Reverse Characteristics

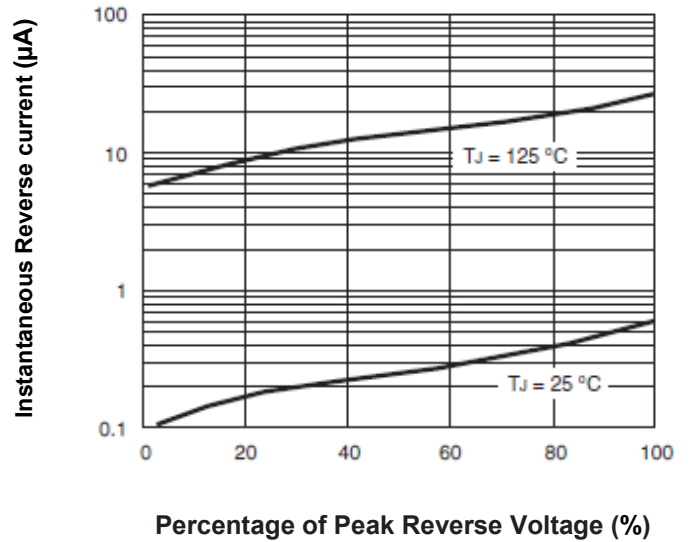
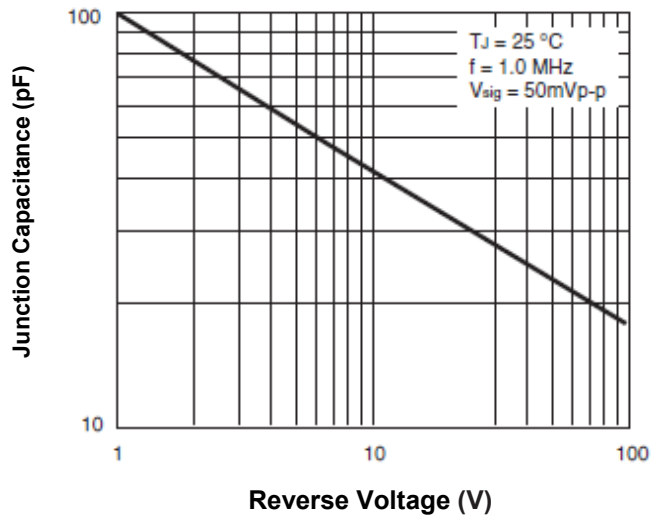


Fig.5- Junction Capacitance

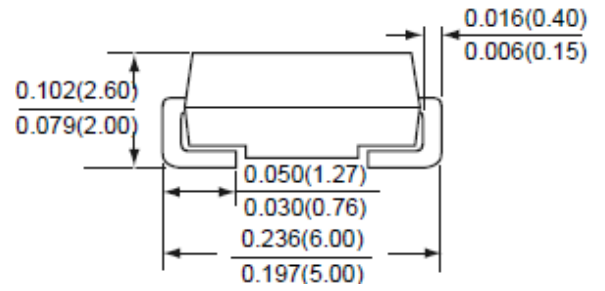
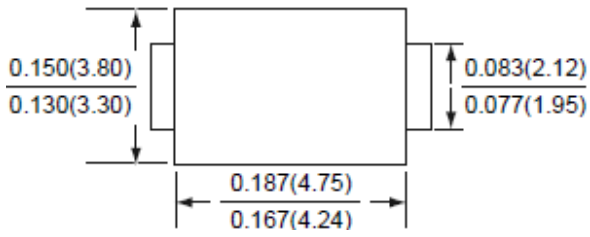


3.0A Surface Mount Rectifier

S3AB-S3MB

Dimensions in inch (mm)

SMB (DO214AA)



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