

## Surface Mount Standard Rectifiers

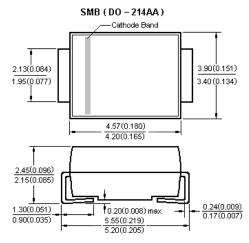
### **Features**

- Low profile package
- Ideal for automated placement
- · Glass passivated chip junctions
- Fast switching for high efficiency
- High forward surge capability
- High temperature soldering:
   260°C/10 seconds at terminals
- Component in accordance to RoHS 2002/95/1 and WEEE 2002/96/EC

## **Mechanical Date**

- Case: JEDEC DO-214AA molded plastic body over glass passivated chip
- Terminals: Solder plated, solderable per J-STD-002B and JESD22-B102D
- Polarity: Laser band denotes cathode end





Dimentsions in millimeters and (inchs)

# Maximum Ratings and Electrical Characteristics Rating at 25°C

ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%

Type Number	SYMBOL	S3AB	S3BB	S3DB	S3GB	S3JB	S3KB	S3MB	Unit
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Average Rectified Output Current @T∟ =90°C	<b>I</b> F(AV)	3.0							А
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	100							А
Forward Voltage @IF=3.0A	V <sub>FM</sub>	1.1							V
Peak Reverse Current @TA =25°C		5.0 100							uA
At Rated DC Blocking Voltage @T <sub>A</sub> =125°C	l <sub>R</sub>								
I <sup>2</sup> t Rating for fusing (t <8.3ms)	I <sup>2</sup> t	26.56							A <sup>2</sup> s
Typical Junction Capacitance (Note 1)	Сл	53							pF
Typical Thermal Resistance Junction to Ambient(Note 2)	Reja Rejc	47 18						°C/W	
Operating Temperature Range	TJ	-55 to+150							$^{\circ}\mathbb{C}$
Storage Temperature Range	Тѕтс	-55 to +150							${\mathbb C}$

Note: 1. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C

2. Thermal Resistance from Junction to Ambient at 0.375(9.5mm) lead length.



# S3AB THRU S3MB Surface Mount Standard Rectifiers

## Characteristic Curves (TA=25 °C unless otherwise noted)

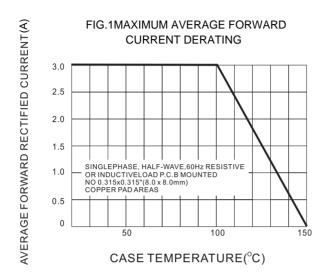
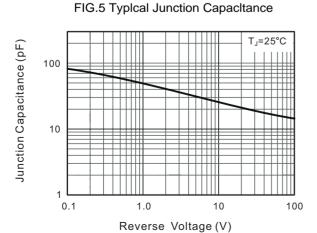
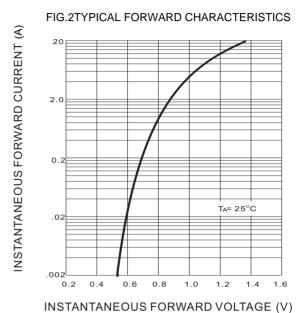
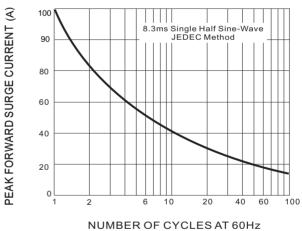


Fig. 3 Typical Reverse Characteristics (per element) IR, INSTANTANEOUS REVERSE CURRENT (µA) 100 10 1.0 T<sub>J</sub> = 25°C 0.1 0.01 20 40 60 80 100 120 140 PERCENT OF RATED PEAK REVERSE VOLTAGE (%)

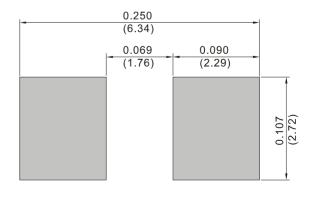




### FIG.4 MAXIMUM NON-REPEITIVE SURGE CURRENT



#### FIG.6 MOUNTING PAD LAYOUT



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