

Surface Mount General Purpose Rectifier

S3AB—S3MB

Features

- ◆ Low profile package
- ◆ Ideal for automated placement
- ◆ Glass passivated chip junction
- ◆ High forward surge capability



Mechanical Data

Case: SMB Molded plastic body

Terminals: Plated leads solderable per MIL-STD-750, Method 2026

High temperature soldering guaranteed: 260°C/10 seconds

Polarity: Cathode line denotes the cathode end

Mounting Position: Any

Maximum Ratings & Electrical Characteristics

Ratings at TA = 25°C unless otherwise specified

Characteristic	Symbol	S3AB	S3BB	S3DB	S3GB	S3JB	S3KB	S3MB	Units
Peak repetitive reverse voltage	VRRM	50	100	200	400	600	800	1000	V
RMS reverse voltage	VRMS	35	70	140	280	420	560	700	V
DC blocking voltage	VDC	50	100	200	400	600	800	1000	V
Maximum average forward output current	IF(AV)	3							A
Peak forward surge current, 8.3ms single half-sine-wave, @TJ = 25°C	IFSM	100							A
Rating for fusing (t<8.3ms)	I2t	41.7							A2sec
Maximum instantaneous forward voltage @ 3A	VF	1.1							V
Maximum Reverse current Rated VR	IR	10							μA
		200							

Thermal Characteristics

Characteristic	Symbol	S3AB	S3BB	S3DB	S3GB	S3JB	S3KB	S3MB	Units
Typical thermal resistance (Note 1)	R θJA	60							°C/W
	R θJC	23							
	R θJL	25							
Operating junction temperature range	TJ	- 55 ---- + 150							°C
Storage temperature range	TSTG	- 55 ---- + 150							°C

Note

(1) Units mounted on PCB with 10 mm x 20mmx0.1mm Copper Pads

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Ratings and Characteristic Curves ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Fig.1-Forward Current Derating Curve

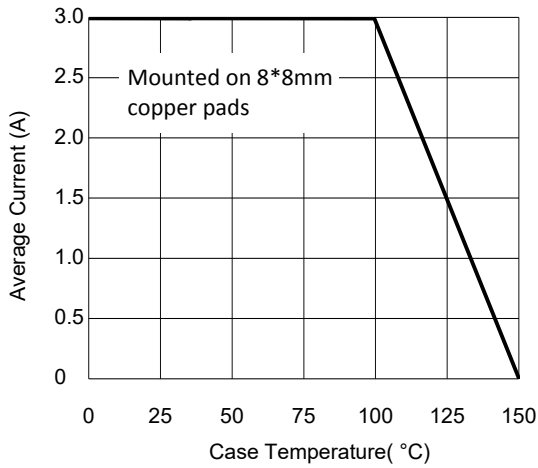


Fig.2- Surge Current Derating Curve

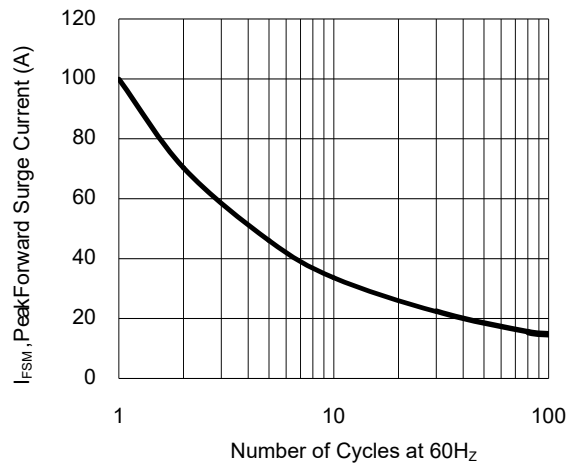


Fig.3- Typical Forward Voltage Characteristic

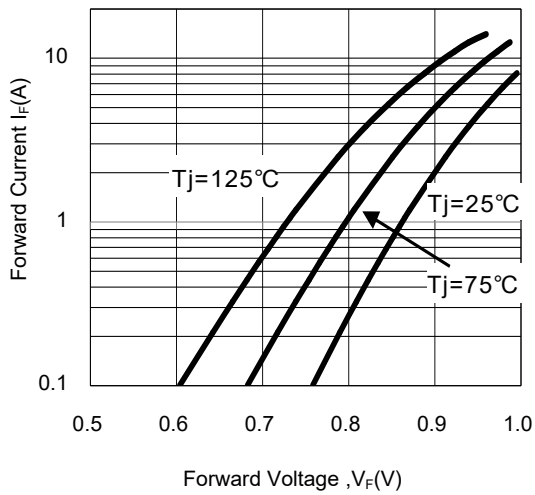
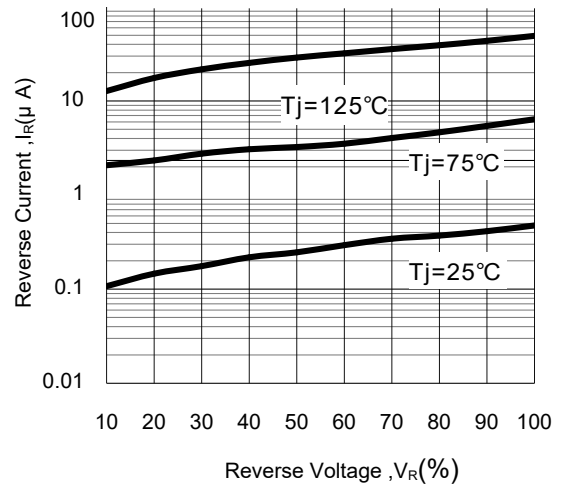


Fig.4- Typical Reverse Characteristic

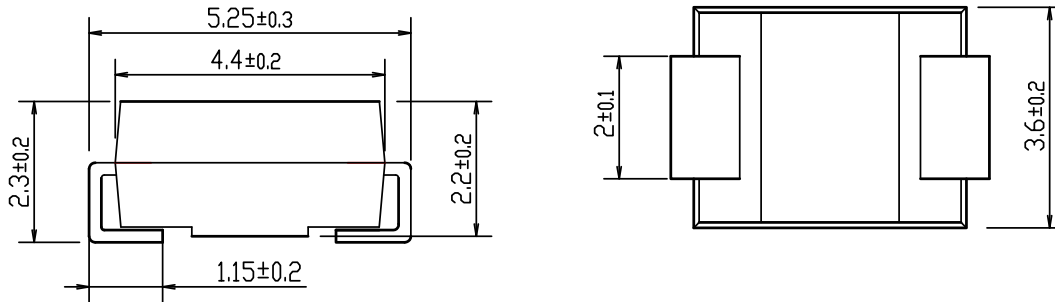


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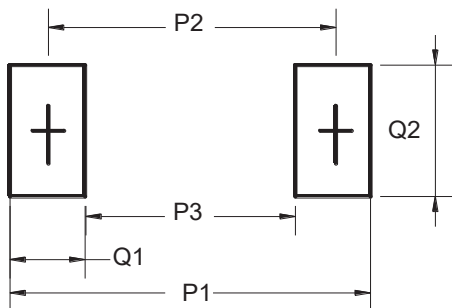
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Package Outline Dimensions(unit:mm)

DO-214AA (SMB)



Mounting Pad Layout(unit:mm)



Dim	Millimeters
P1	6.80
P2	4.30
P3	1.80
Q1	2.50
Q2	2.30

Ordering Information

Part No.	Marking	Package	Shipping
S3AB	S3AB	SMB	3000PCS /Tape&Reel
S3BB	S3BB	SMB	3000PCS /Tape&Reel
S3DB	S3DB	SMB	3000PCS /Tape&Reel
S3GB	S3GB	SMB	3000PCS /Tape&Reel
S3JB	S3JB	SMB	3000PCS /Tape&Reel
S3KB	S3KB	SMB	3000PCS /Tape&Reel
S3MB	S3MB	SMB	3000PCS /Tape&Reel