Surface Mount General Purpose Silicon Rectifiers

Parameter	Value	Unit
V_{RRM}	50~1000	V
$I_{F(AV)}$	3.0	A

DO-214AA/SMB

Features

- For surface mounted applications
- Low profile package
- Glass Passivated Chip Junction
- Easy to pick and place

Applications

- For use in general purpose rectification in power supplies, inverters, converters, and as freewheeling diodes for consumer and telecommunications applications.

Absolute Maximum Ratings and Characteristics (Ta=25℃ unless otherwise noted)

Parameter	Symbol	S3AB	S3BB	S3DB	S3GB	S3JB	S3KB	S3MB	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	3.0							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	100							A
Maximum Instantaneous Forward Voltage at 3A	V_F	1.1							V
Maximum DC Reverse Current Ta = 25℃ at Rated DC Blocking Voltage Ta = 125℃	I_R	5 100							μA
Typical Junction Capacitance（1）	C_j	35							pF
Typical Thermal Resistance（2）	$R_{\theta JA}$ $R_{\theta JC}$	48 16							℃/W
Operating and Storage Temperature Range	T_j , T_{stg}	-55 ~ +150							℃

（1）Measured at 1 MHz and applied reverse voltage of 4 VD.C

（2）P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

Typical characteristics

Fig.1 Forward Current Derating Curve

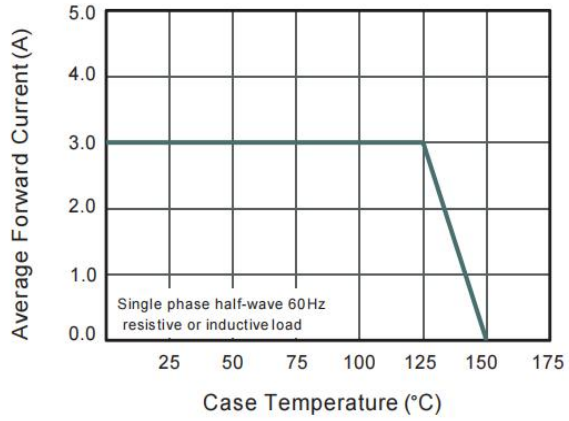


Fig.2 Typical Instaneous Reverse Characteristics

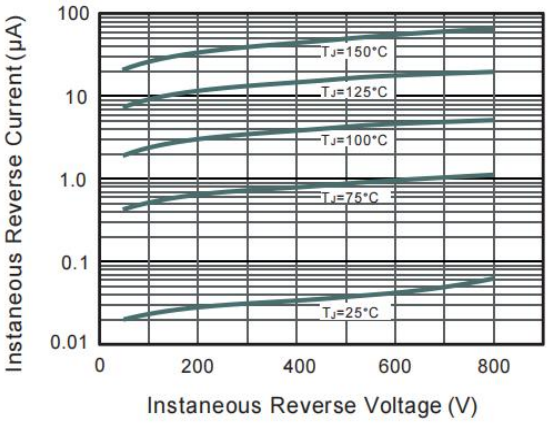


Fig.3 Typical Forward Characteristic

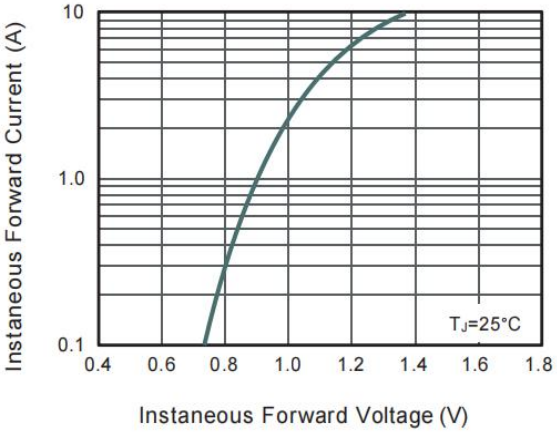


Fig.4 Typical Junction Capacitance

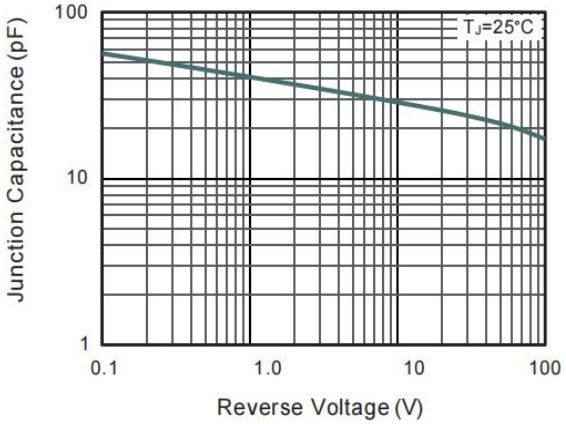
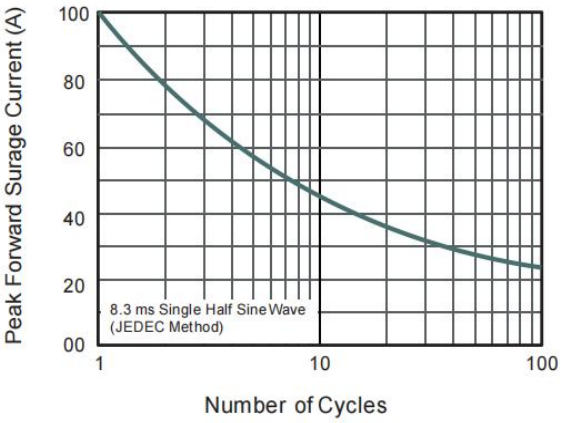


Fig.5 Maximum Non-Repetitive Peak Forward Surage Current



Package Outlines

Plastic surface mounted package; 2 leads

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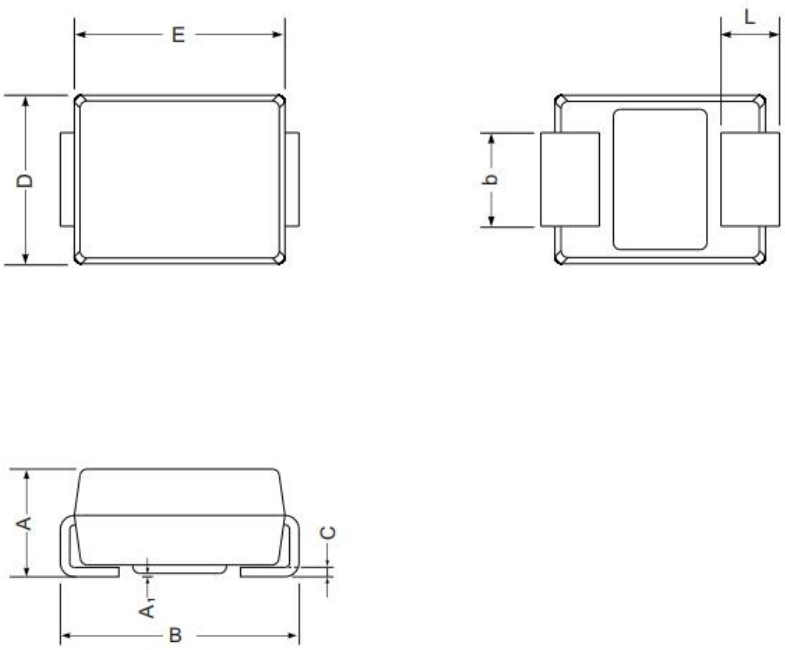
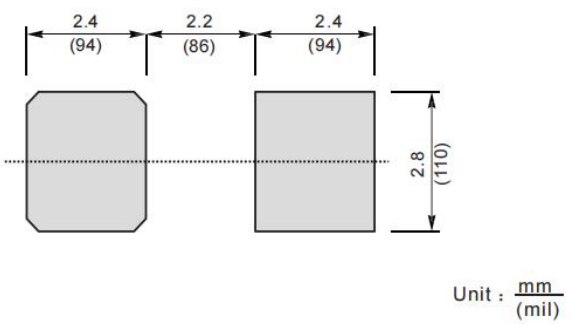


SMB mechanical data

UNIT		A	E	D	B	A_1	L	C	b
mm	max	2.5	4.70	3.94	5.5	0.20	1.5	0.305	2.2
	min	2.1	4.06	3.3	5.0	0.05	0.8	0.152	1.9
mil	max	98	185	155	216	7.9	59	12	87
	min	82	160	130	196	2.0	32	6	75

The recommended mounting pad size



Marking

Type number	Marking code
S3AB	S3A
S3BB	S3B
S3DB	S3D
S3GB	S3G
S3JB	S3J
S3KB	S3K
S3MB	S3M

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