

Surface Mount General Purpose Silicon Rectifiers

Parameter	Value	Unit
V_{RRM}	50~1000	V
$I_{F(AV)}$	2.0	A



DC-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°C unless otherwise noted)

Parameter	Symbol	S2AB	S2BB	S2DB	S2GB	S2JB	S2KB	S2MB	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	$I_{F(AV)}$	2.0							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	60							A
Maximum Instantaneous Forward Voltage at 2A	V_F	1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	5							μA
		100							
Typical Junction Capacitance (1)	C_j	25							pF
Typical Thermal Resistance (2)	$R_{\theta JA}$	60							$^{\circ}C/W$
	$R_{\theta JC}$	20							
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150							$^{\circ}C$

(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

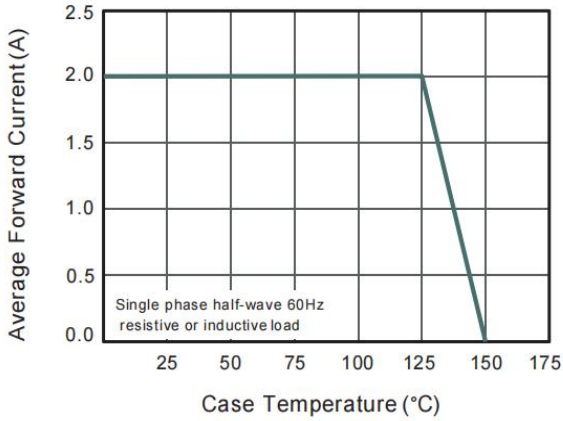


Fig.2 Typical Instaneous Reverse Characteristics

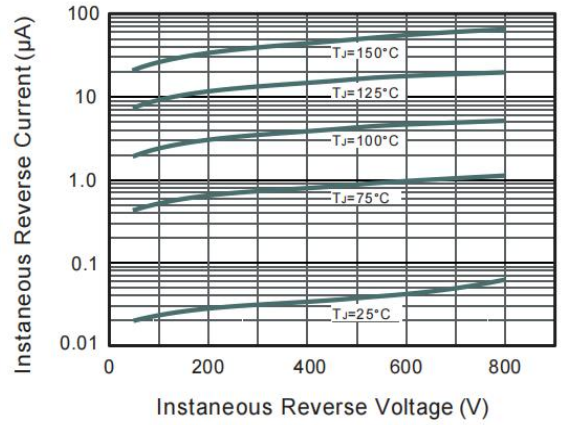


Fig.3 Typical Forward Characteristic

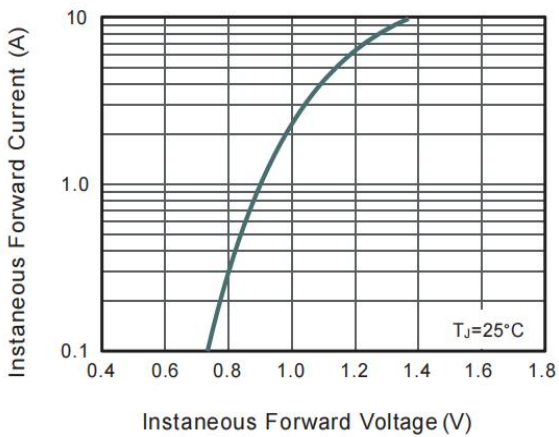


Fig.4 Typical Junction Capacitance

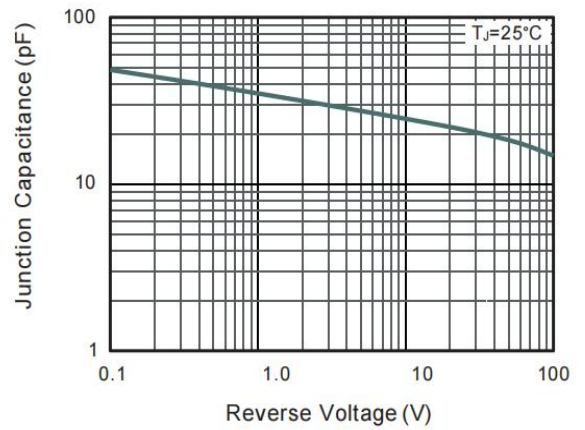
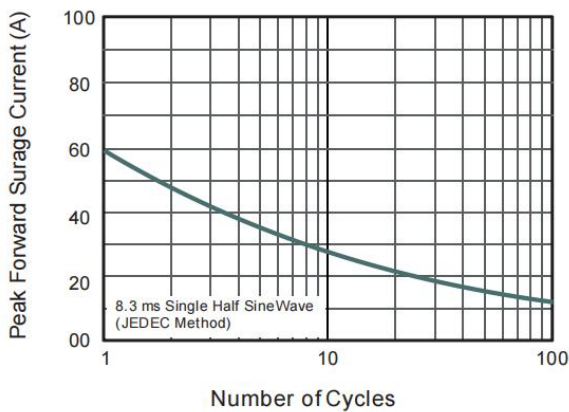


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



Package Outlines

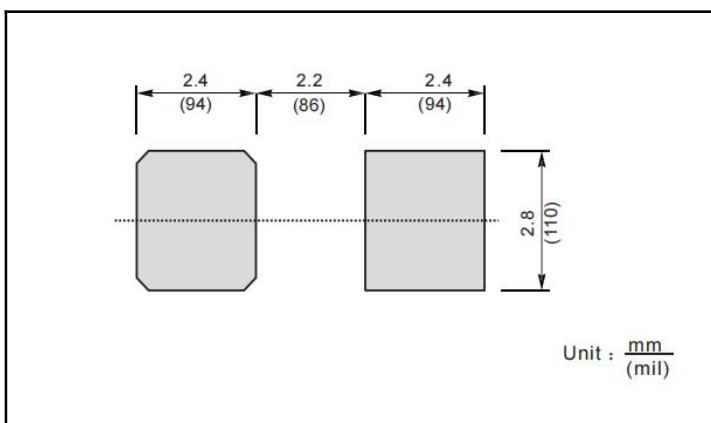
Plastic surface mounted package; 2 leads

DO-214AA/SMB

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
S2AB	S2A
S2BB	S2B
S2DB	S2D
S2GB	S2G
S2JB	S2J
S2KB	S2K
S2MB	S2M

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