

Surface Mount General Purpose Silicon Rectifiers

Parameter	Value	Unit
V_{RRM}	50~1000	V
$I_{F(AV)}$	6.0	A



DC-214AB/SMC

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	S6A	S6B	S6D	S6G	S6J	S6K	S6M	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	$I_{F(AV)}$	6.0							A
Peak Forward Surge Current 8.3ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	200							A
Maximum Instantaneous Forward Voltage at 6A	V_F	1.0							V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	5 100							μA
Typical Junction Capacitance (1)	C_j	100							pF
Typical Thermal Resistance (2)	$R_{\theta JA}$ $R_{\theta JC}$	35 13							$^{\circ}C/W$
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

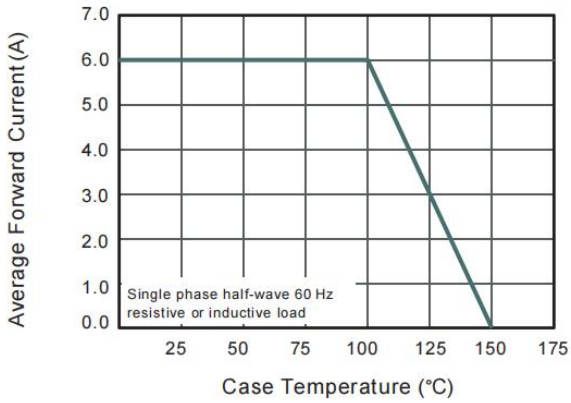


Fig.2 Typical Reverse Characteristics

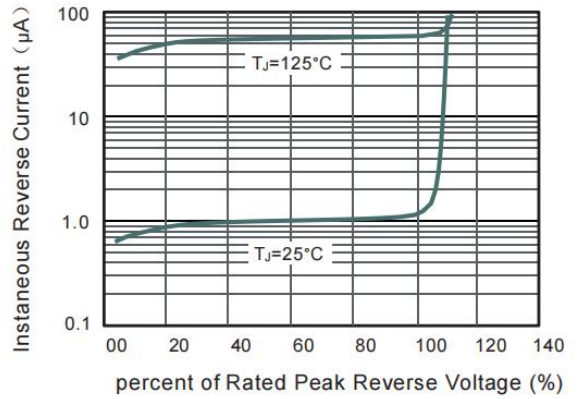


Fig.3 Typical Forward Characteristic

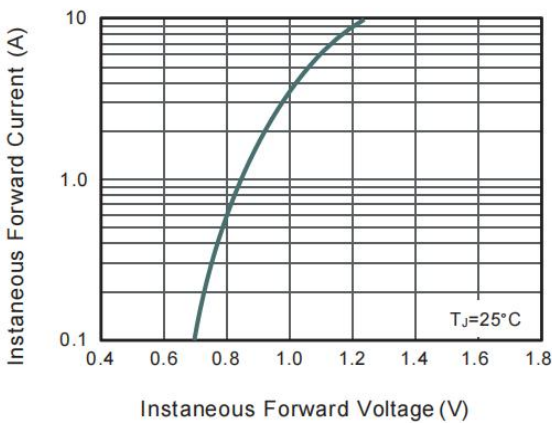


Fig.4 Typical Junction Capacitance

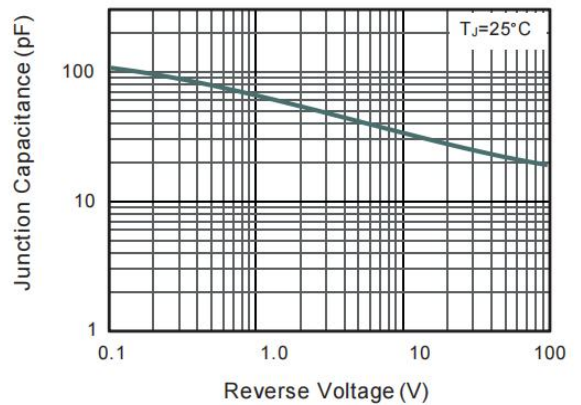
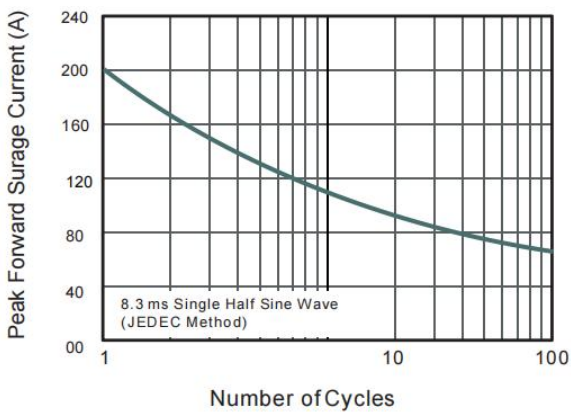


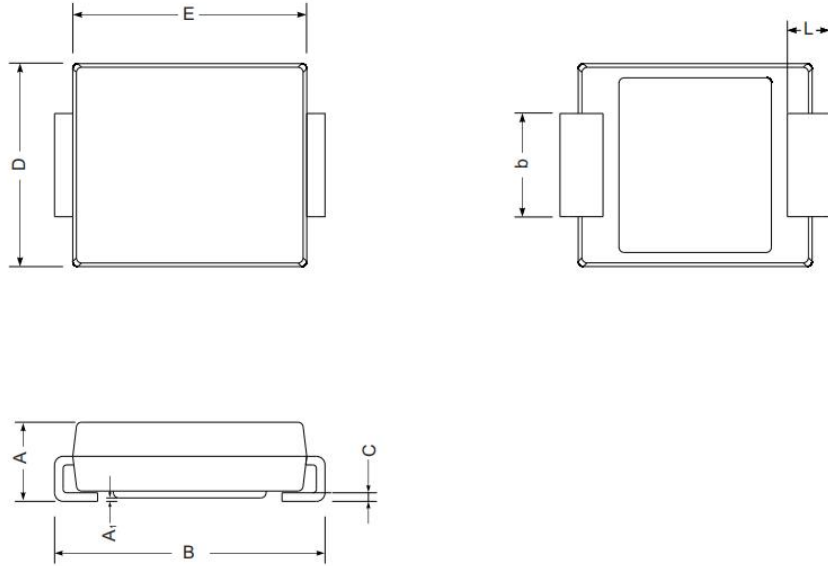
Fig.6 Maximum Non-Repetitive Peak Forward Surge Current



Package Outlines

Plastic surface mounted package; 2 leads

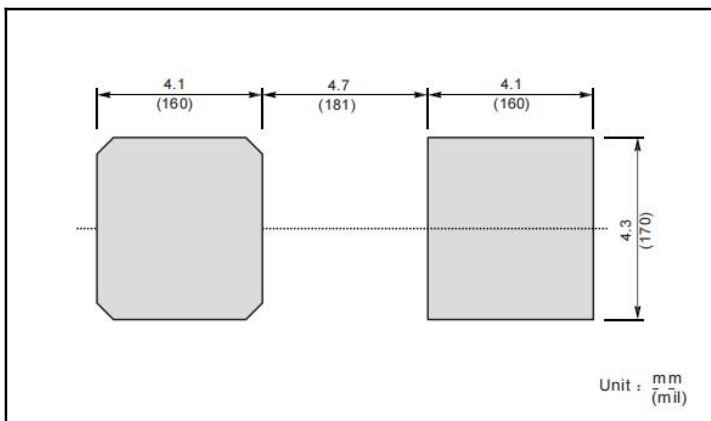
DO-214AB/SMC



SMC mechanical data

UNIT		A	E	D	B	A ₁	C	L	b
mm	max	2.62	7.1	6.2	8.3	0.21	0.31	1.6	3.25
	min	2.00	6.6	5.6	7.7	0.05	0.15	0.9	2.75
mil	max	103	280	244	327	8.3	12	63	128
	min	79	260	220	303	2.0	5.9	35	108

The recommended mounting pad size



Marking

Type number	Marking code
S6A	S6A
S6B	S6B
S6D	S6D
S6G	S6G
S6J	S6J
S6K	S6K
S6M	S6M

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