

Surface Mount General Purpose Silicon Rectifiers

Reverse Voltage - 50 to 1000 V Forward Current - 2 A

FEATURES

- For surface mounted applications
- Low profile package
- Glass Passivated Chip Junction
- Easy to pick and place
- Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

- Case: SMB
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.055g / 0.002oz

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Top View
Marking Code : S2A~S2M
Simplified outline SMB and symbol

Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %

Parameter	Symbols	S2ABG	S2BBG	S2DBG	S2GBG	S2JBG	S2KBG	S2MBG	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			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 2 A	V _F					1.1			V
Maximum DC Reverse Current T _a = 25 °C at Rated DC Blocking Voltage T _a = 125 °C	I _R				5	100			µA
Typical Junction Capacitance ⁽¹⁾	C _j				25				pF
Typical Thermal Resistance ⁽²⁾	R _{θJA} R _{θJC}				60	20			°C/W
Operating and Storage Temperature Range	T _j , T _{stg}				-55 ~ +150				°C

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

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

Fig.1 Forward Current Derating Curve

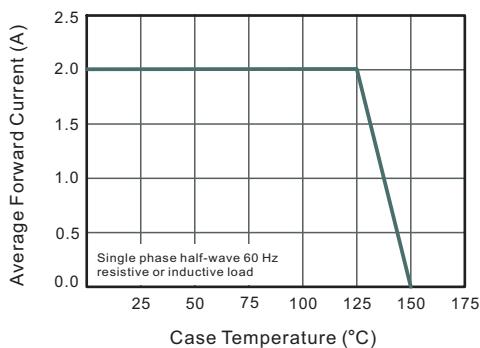


Fig.2 Typical Instantaneous Reverse Characteristics

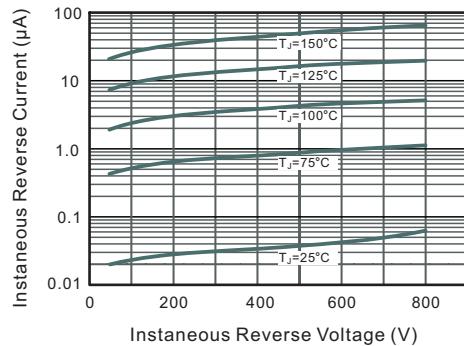


Fig.3 Typical Forward Characteristic

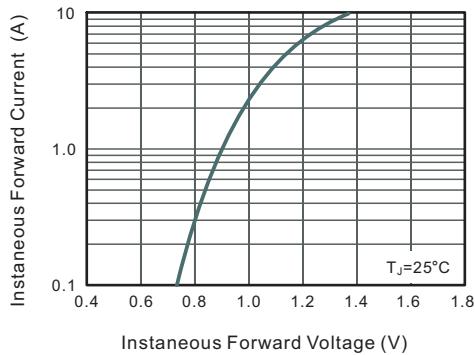


Fig.4 Typical Junction Capacitance

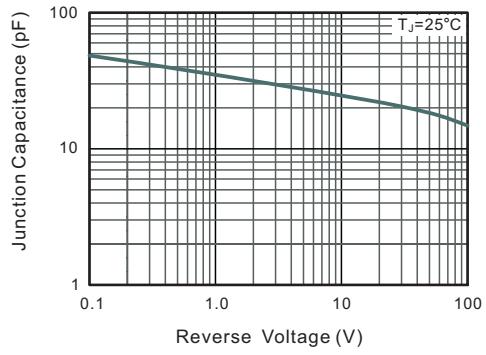
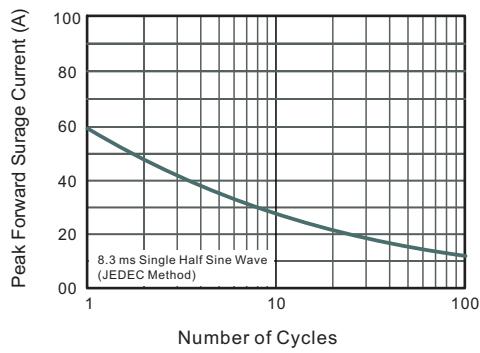
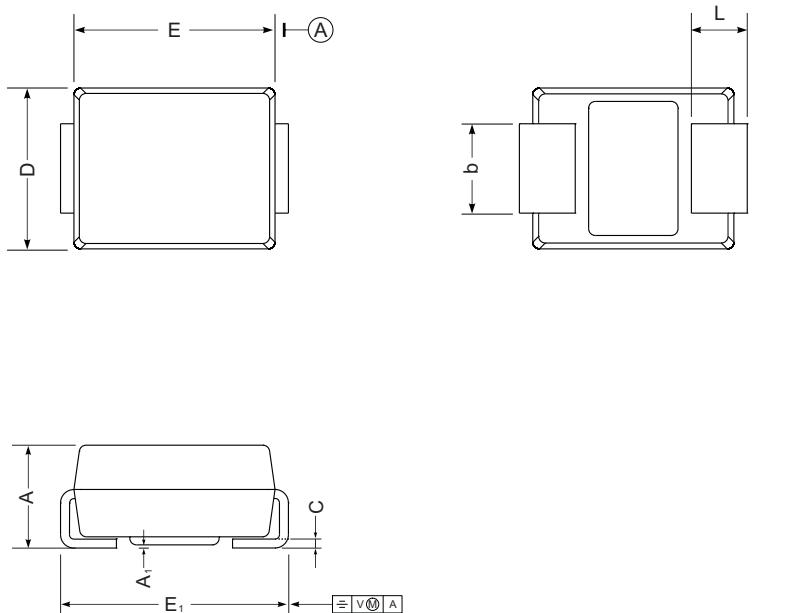


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



PACKAGE OUTLINE

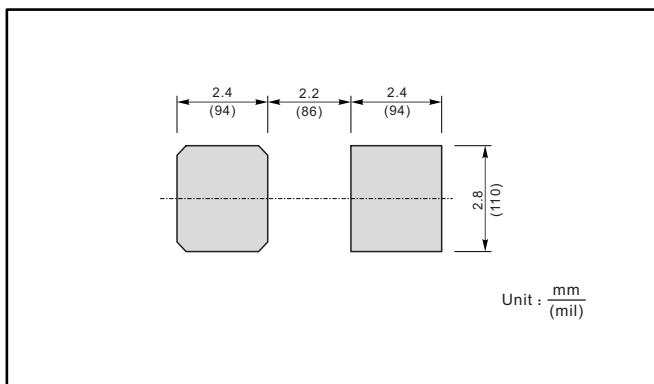
Plastic surface mounted package; 2 leads



SMB mechanical data

UNIT		A	E	D	E_1	A_1	L	C	b
mm	max	2.44	4.70	3.94	5.59	0.20	1.5	0.305	2.2
	min	2.13	4.06	3.3	5.08	0.05	0.8	0.152	1.9
mil	max	96	185	155	220	7.9	59	12	87
	min	84	160	130	200	2.0	32	6	75

The recommended mounting pad size



Marking

Type number	Marking code
S2ABG	S2A
S2BBG	S2B
S2DBG	S2D
S2GBG	S2G
S2JBG	S2J
S2KBG	S2K
S2MBG	S2M