

Reverse Voltage - 20 to 200 V
Forward Current - 3 A



FEATURES

- Metal silicon junction, majority carrier conduction
- For surface mounted applications
- Low power loss, high efficiency
- High forward surge current capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

MECHANICAL DATA

- Case: SMB
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 95mg (0.0034oz)

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	SS32B	SS34B	SS36B	SS38B	SS310B	SS312B	SS315B	SS320B	Units
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	20	40	60	80	100	120	150	200	V
Maximum RMS voltage	V _{RMS}	14	28	42	56	70	84	105	140	V
Maximum DC Blocking Voltage	V _{DC}	20	40	60	80	100	120	150	200	V
Maximum Average Forward Rectified Current	I _{F(AV)}	3.0								A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I _{FSM}	80								A
Max Instantaneous Forward Voltage at 3 A	V _F	0.55		0.70	0.85		0.95			V
Maximum DC Reverse Current T _a = 25°C at Rated DC Reverse Voltage T _a = 100°C	I _R	0.5 5			0.3 3					mA
Typical Junction Capacitance ⁽¹⁾	C _j	450			400					pF
Typical Thermal Resistance ⁽²⁾	R _{θJA}	60								°C/W
Operating Junction Temperature Range	T _j	-55 ~ +150								°C
Storage Temperature Range	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.

Typical Characteristics

Fig.1 Forward Current Derating Curve

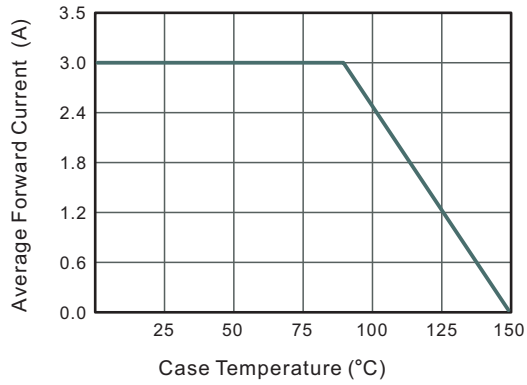


Fig.2 Typical Reverse Characteristics

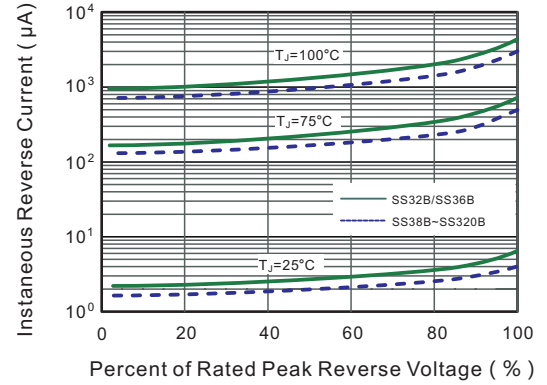


Fig.3 Typical Forward Characteristic

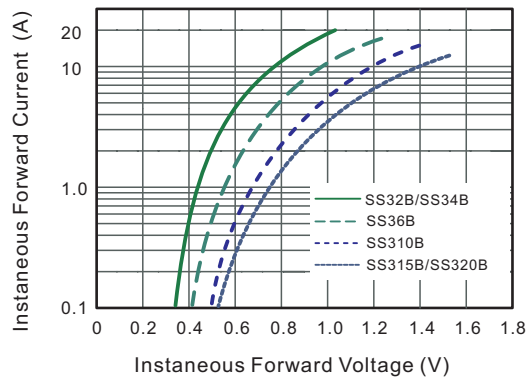


Fig.4 Typical Junction Capacitance

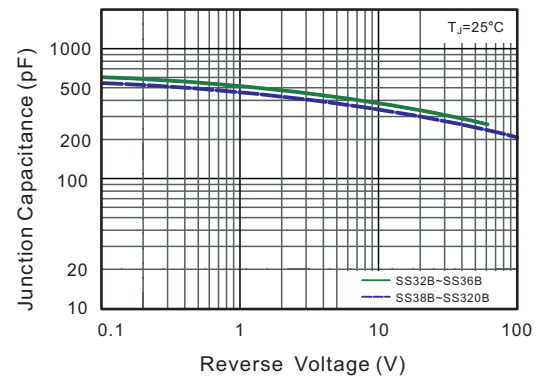


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

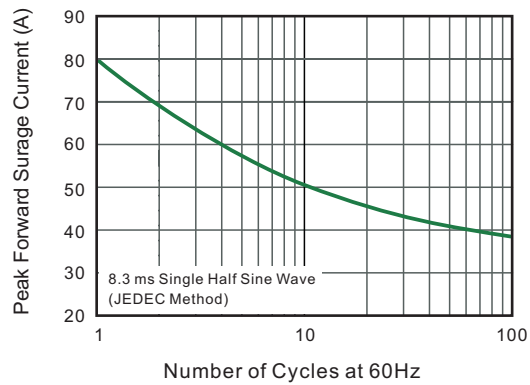
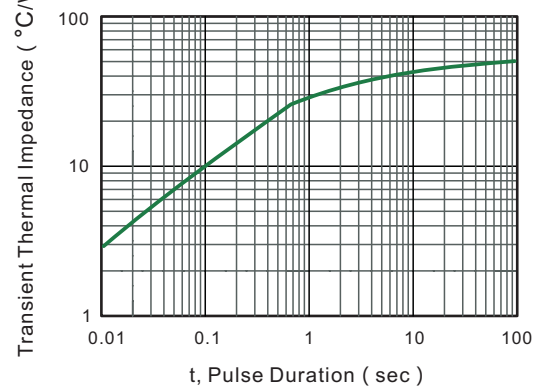
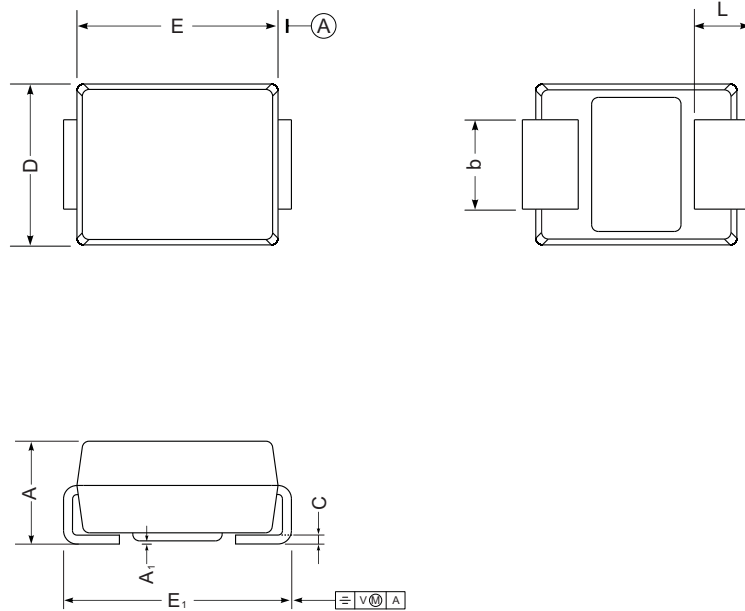


Fig.6 Typical Transient Thermal Impedance



PACKAGE OUTLINE

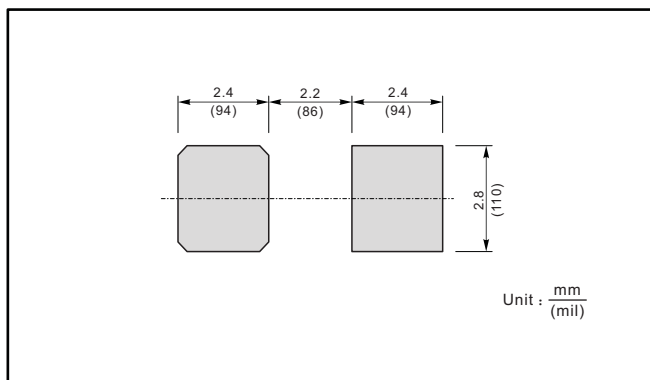
Plastic surface mounted package; 2 leads



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
SS32B	SS32
SS34B	SS34
SS36B	SS36
SS38B	SS38
SS310B	SS310
SS312B	SS312
SS315B	SS315
SS320B	SS320