

Surface Mount Schottky Barrier Rectifier
Reverse Voltage - 20 to 200V
Forward Current - 2.0A

FEATURES

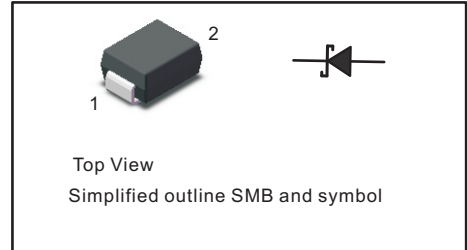
- Metal silicon junction, majority carrier conduction
- For surface mounted applications
- Low power loss, high efficiency
- High forward surge current capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

MECHANICAL DATA

- Case : SMB
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 0.095g / 0.003oz

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



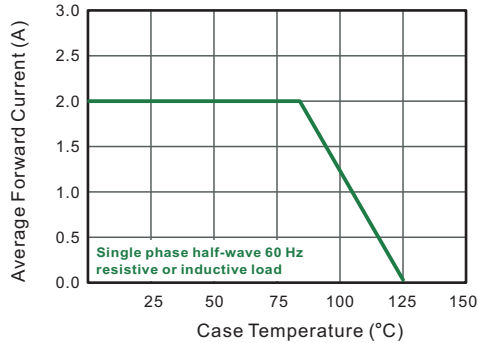
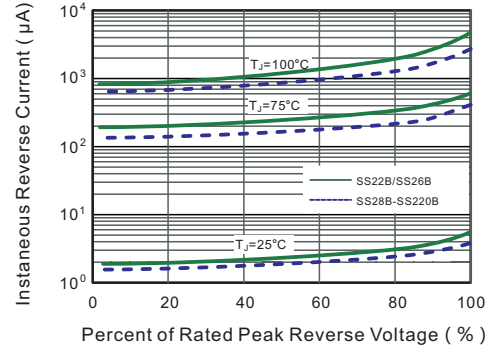
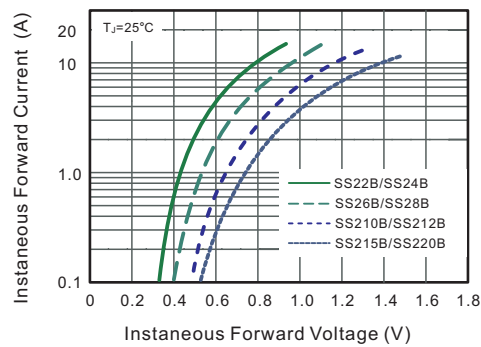
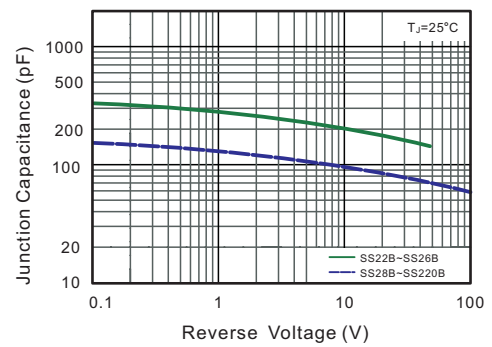
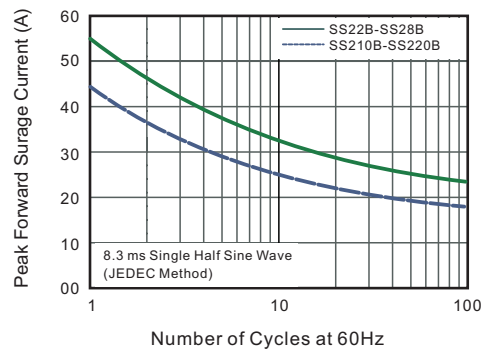
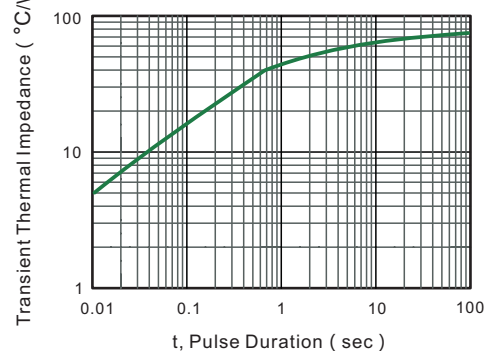
Absolute Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz resistive or inductive load, for capacitive load, derate by 20 %

Parameter	Symbols	MBRS120 SS22B	MBRS140 SS24B	MBRS160 SS26B	MBRS180 SS28B	MBRS1100 SS210B	MBRS1120 SS212B	MBRS1150 SS215B	MBRS1200 SS220B	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)}	2.0								A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I _{FSM}	55				45				A
Max Instantaneous Forward Voltage at 2 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	220			110					pF
Typical Thermal Resistance ⁽²⁾	R _{θJA}	60								°C/W
Operating Junction Temperature Range	T _j	-55 ~ +125								°C
Storage Temperature Range	T _{stg}	-55 ~ +150								°C

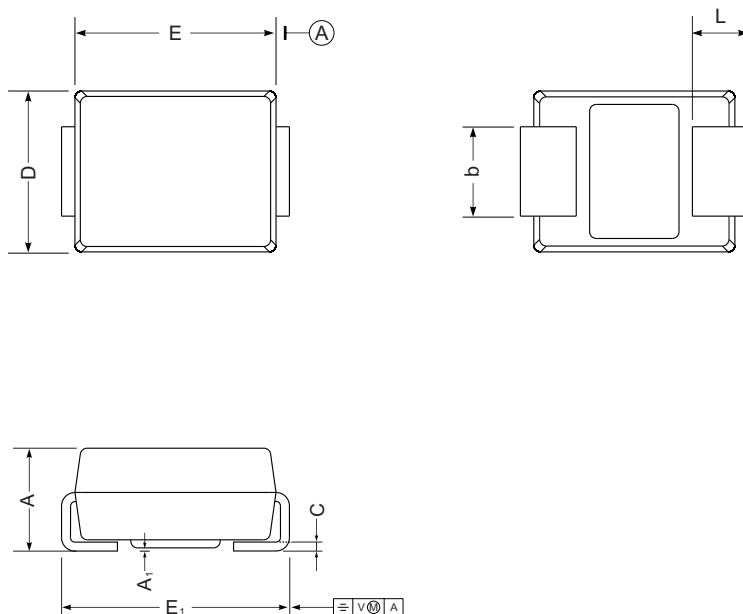
(1) Measured at 1 MHz and applied reverse voltage of 4 V D.C

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

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

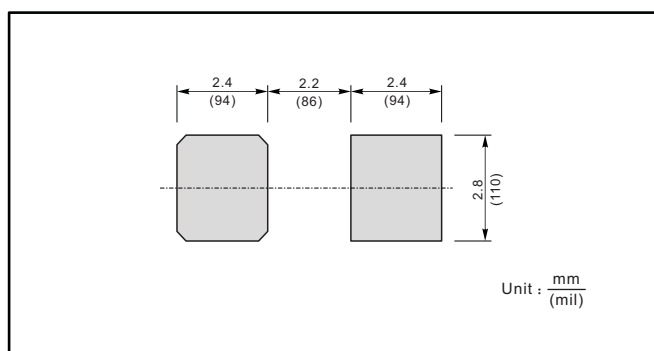
Plastic surface mounted package; 2 leads



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
SS22B	SS22
SS24B	SS24
SS26B	SS26
SS28B	SS28
SS210B	SS210
SS212B	SS212
SS215B	SS215
SS220B	SS220