SS1040B THRU SS10200B

Surface Mount Schottky Barrier Rectifier



Reverse Voltage - 40 to 200V
Forward Current - 10.0A

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: 0.1g / 0.0034oz

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	SS1040B	SS1045B	SS1060B	SS10100B	SS10150B	SS10200B	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	40	45	60	100	150	200	V
Maximum RMS voltage	V_{RMS}	28	32	42	70	105	140	V
Maximum DC Blocking Voltage	V_{DC}	40	45	60	100	150	200	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	10.0						A
Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	175						A
Max Instantaneous Forward Voltage @10.0 A	V_F	0.55		0.70	0.85	0.90	0.92	V
Maximum DC Reverse Current T_a = 25°C at Rated DC Reverse Voltage T_a =100°C	I_R	0.1 5			0.02 2			mA
Typical Thermal Resistance (1)	$R_{\theta JL}$	15						°C/W
Typical Junction Capacitance (2)	C_j	600		400				pF
Operating Junction Temperature Range	T_j	-55 ~ +125		-55 ~ +150				°C
Storage Temperature Range	T_{stg}	-55 ~ +150						°C

(1) P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.
(2) Measured at 1 MHz and applied reverse voltage of 4 V D.C

Typical Characteristics

Fig.1 Forward Current Derating Curve

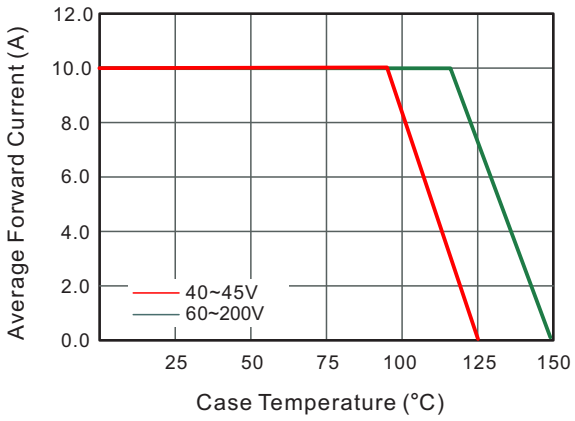


Fig.2 Typical Reverse Characteristics

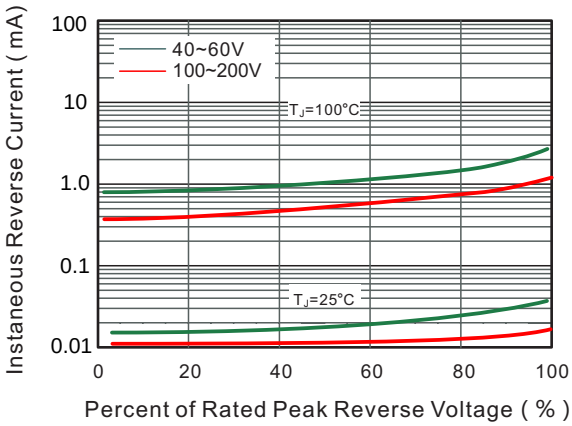


Fig.3 Typical Forward Characteristic

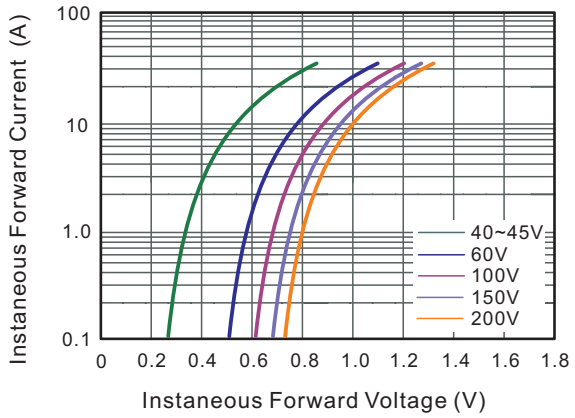


Fig.4 Typical Junction Capacitance

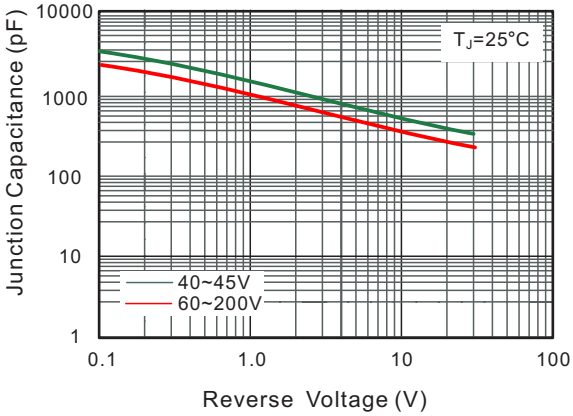


Fig.5 Maximum Non-Repetitive Peak Forward Surage Current

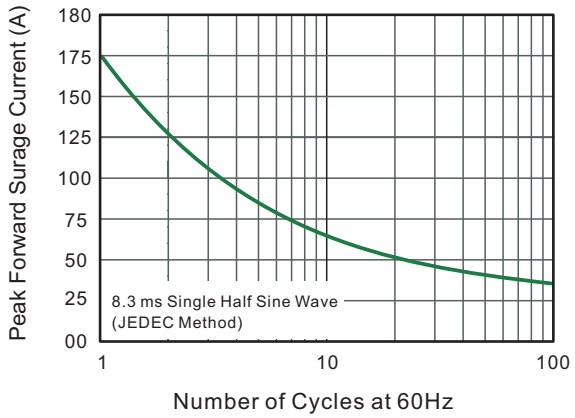
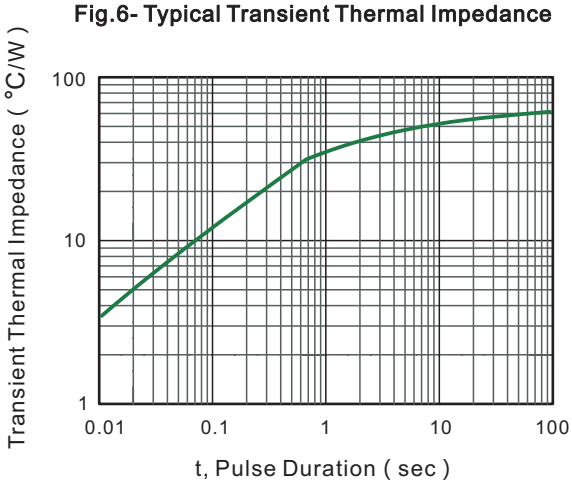


Fig.6- Typical Transient Thermal Impedance



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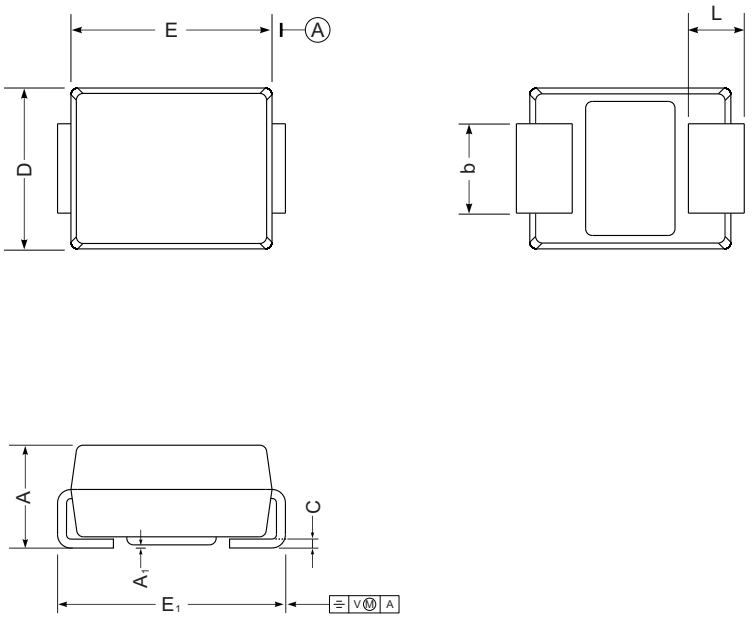
PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

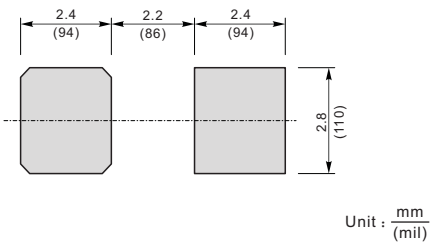
SMB



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
SS1040B	SS1040
SS1045B	SS1045
SS1060B	SS1060
SS10100B	SS10100
SS10150B	SS10150
SS10200B	SS10200