



Surface Mount Schottky Barrier Rectifier

Reverse Voltage - 40 to 200V

Forward Current - 10.0A

FEATURES

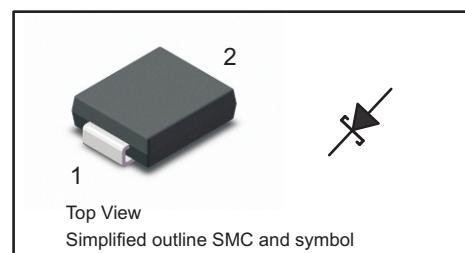
- Metal silicon junction, majority carrier conduction
- For surface mounted applications
- Low power loss, high efficiency
- High forward surge current capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

MECHANICAL DATA

- Case: SMC
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.22g / 0.0077oz

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	SS1040C	SS1045C	SS1060C	SS10100C	SS10150C	SS10200C	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 @ Fig.1	$I_{F(AV)}$	10						A		
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	150						A		
Peak Forward Surge Current, 1.0ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	300						A		
I^2t Rating for fusing (3ms $\leq t \leq$ 8.3ms)	I^2t	93.3						A^2S		
Max Instantaneous Forward Voltage at 10 A	V_F	0.55		0.75	0.85	0.90	0.92	V		
Maximum DC Reverse Current $T_a = 25^\circ C$ at Rated DC Reverse Voltage $T_a = 100^\circ C$	I_R	0.5 50						mA		
Typical Junction Capacitance ⁽¹⁾	C_j	445		380	280		165	pF		
Typical Thermal Resistance ⁽²⁾	$R_{\theta JA}$ $R_{\theta JC}$ $R_{\theta JL}$	37 10 13						°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 1.5" X 1.5" (3.81 X 3.81 cm) copper pad areas.



Fig.1 Forward Current Derating Curve

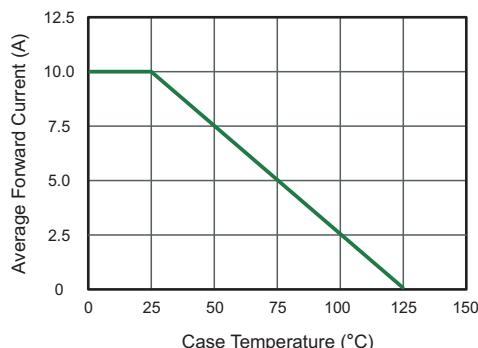


Fig.2 Typical Reverse Characteristics

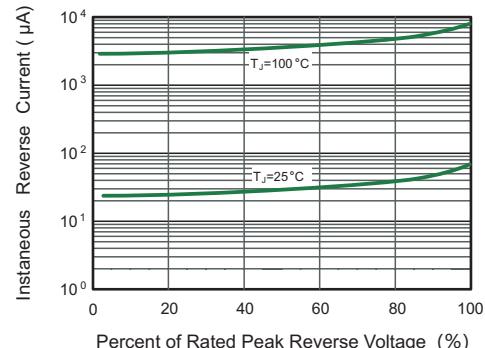


Fig.3 Typical Forward Characteristic

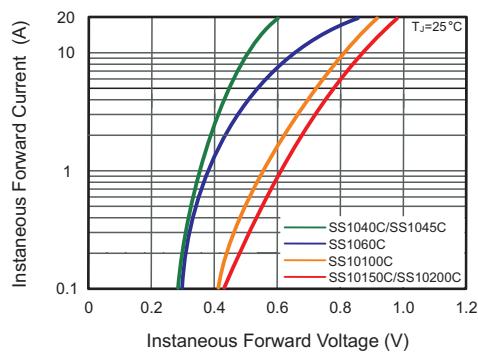


Fig.4 Typical Junction Capacitance

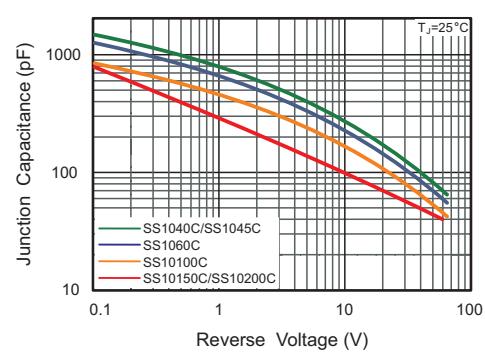
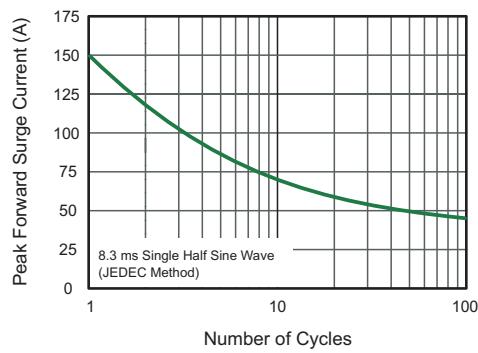


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

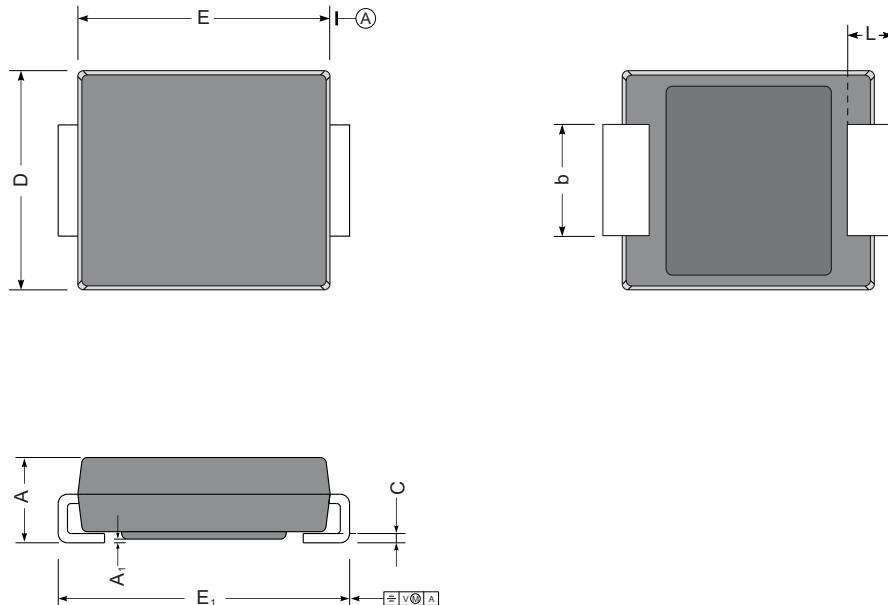




PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

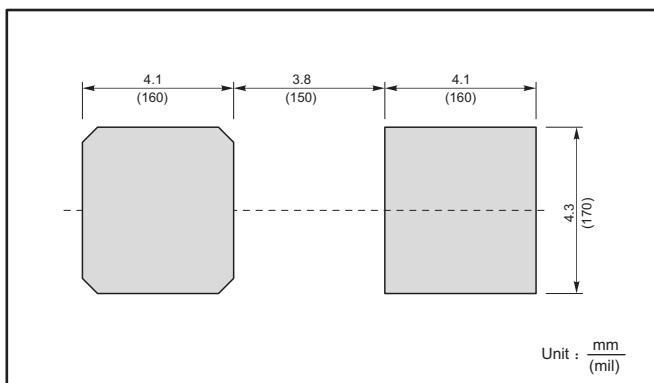
SMC



SMC mechanical data

UNIT		A	E	D	E ₁	A ₁	C	L	b
mm	max	2.62	7.0	6.2	8.0	0.21	0.31	1.6	3.25
	min	2.00	6.5	5.6	7.6	0.05	0.15	0.9	2.75
mil	max	103	276	244	315	8.3	12	63	128
	min	79	256	220	299	2.0	5.9	35	108

The recommended mounting pad size



Marking

Type number	Marking code
SS1040C	S1040
SS1045C	S1045
SS1060C	S1060
SS10100C	S10100
SS10150C	S10150
SS10200C	S10200



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