



Surface Mount Schottky Barrier Rectifier

Reverse Voltage - 20 to 200V

Forward Current - 8.0A

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



Top View

Marking Code: SS82 ~ SS820

Simplified outline SMC and symbol

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	SS82C	SS84C	SS86C	SS88C	SS810C	SS812C	SS815C	SS820C	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)}	8.0							A				
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I _{FSM}	150							A				
Max Instantaneous Forward Voltage at 8 A	V _F	0.45	0.55	0.70	0.85			V					
Maximum DC Reverse Current T _a = 25°C at Rated DC Reverse Voltage T _a = 100°C	I _R	1.0 50							mA				
Typical Junction Capacitance ⁽¹⁾	C _j	600		400			pF						
Typical Thermal Resistance ⁽²⁾	R _{θJA}	35							°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.



Fig.1 Forward Current Derating Curve

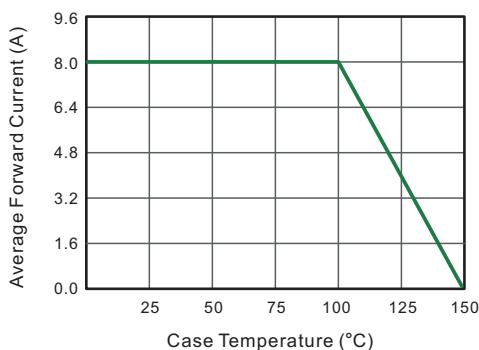


Fig.2 Typical Reverse Characteristics

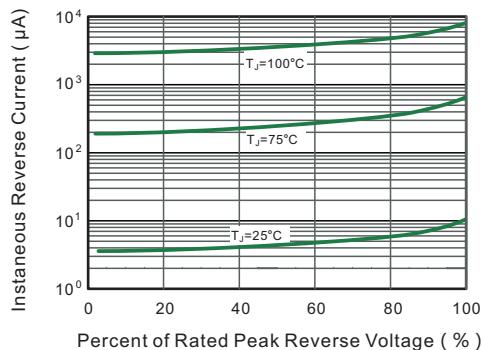


Fig.3 Typical Forward Characteristic

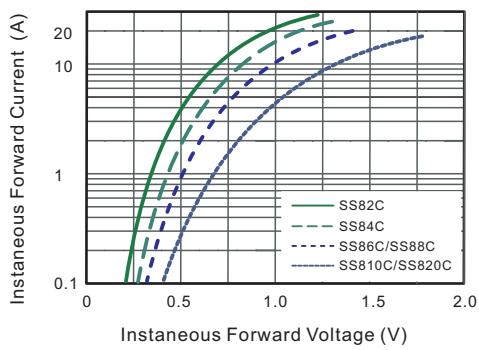


Fig.4 Typical Junction Capacitance

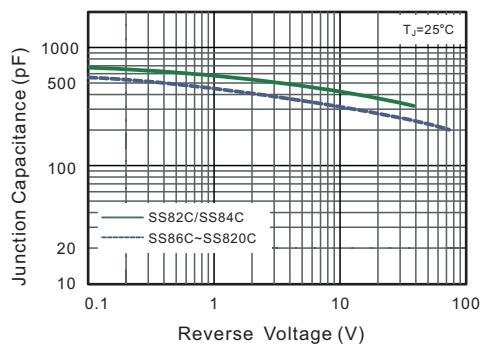


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

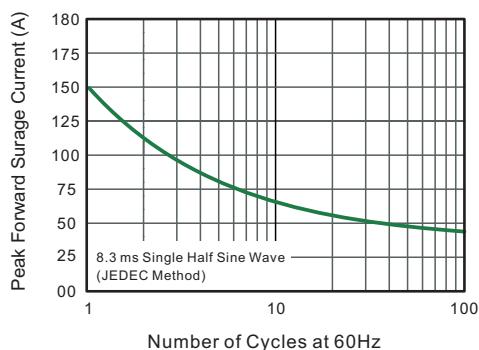
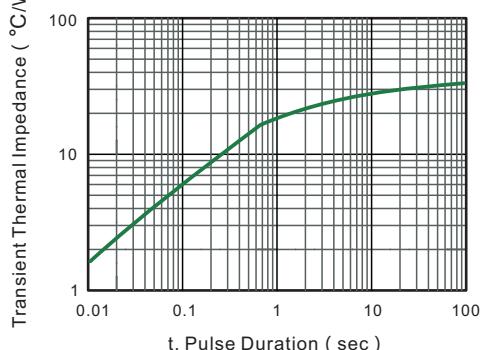


Fig.6- Typical Transient Thermal Impedance

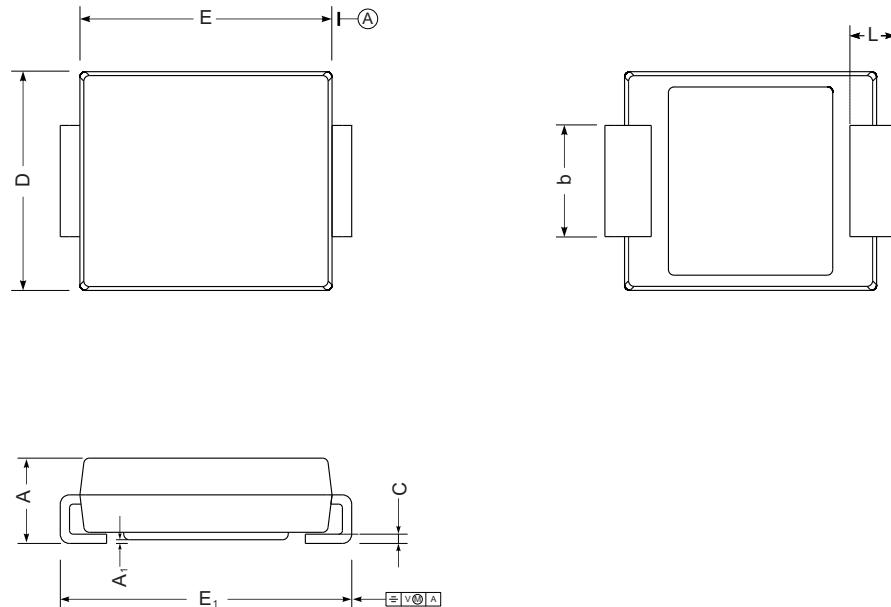




PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

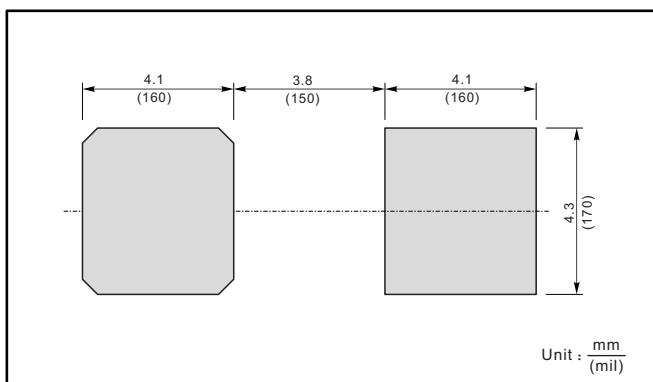
SMC



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
SS82C	SS82
SS84C	SS84
SS86C	SS86
SS88C	SS88
SS810C	SS810
SS812C	SS812
SS815C	SS815
SS820C	SS820

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