

Surface Mount Schottky Barrier Rectifier

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

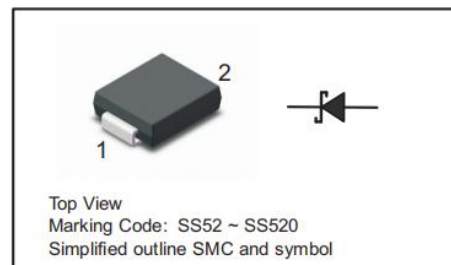
- Case: SMC
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.22g / 0.0077oz

Absolute Maximum Ratings and Electrical characteristics

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

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Marking

Type number	Marking code
SS52CG	SS52
SS54CG	SS54
SS56CG	SS56
SS58CG	SS58
SS510CG	SS510
SS512CG	SS512
SS515CG	SS515
SS520CG	SS520

Parameter		Symbol	SS52 CG	SS54 CG	SS56 CG	SS58 CG	SS510 CG	SS512 CG	SS515 CG	SS520 CG	Unit
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)}	5.0								A
Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)		I _{FSM}	175			150					A
Max Instantaneous Forward Voltage at 5 A		V _F	0.55		0.70	0.85		0.95			V
Maximum DC Reverse Current at Rated DC Reverse Voltage	T _A =25°C	I _R	1.0								mA
	T _A =100°C		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	-55~125								°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" * 2.0" (5 * 5 cm) copper pad areas.

Typical Characteristics

Fig.1 Forward Current Derating Curve

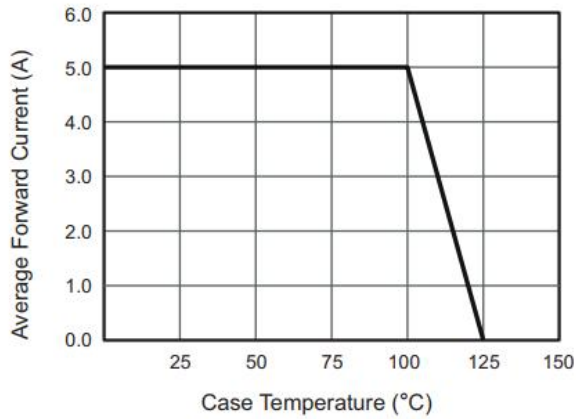


Fig.2 Typical Reverse Characteristics

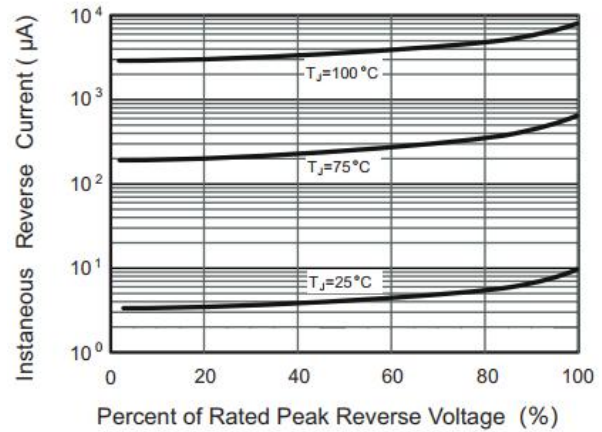


Fig.3 Typical Forward Characteristic

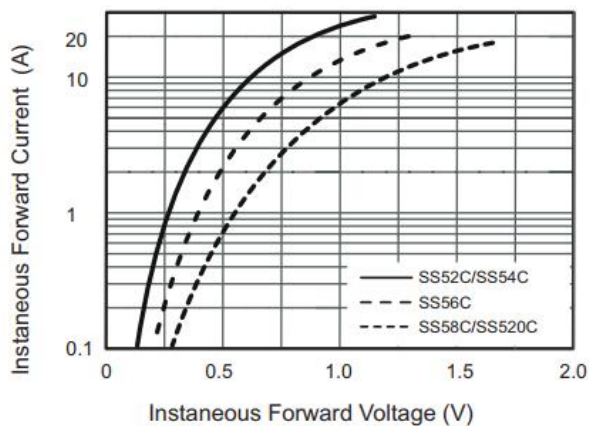


Fig.4 Typical Junction Capacitance

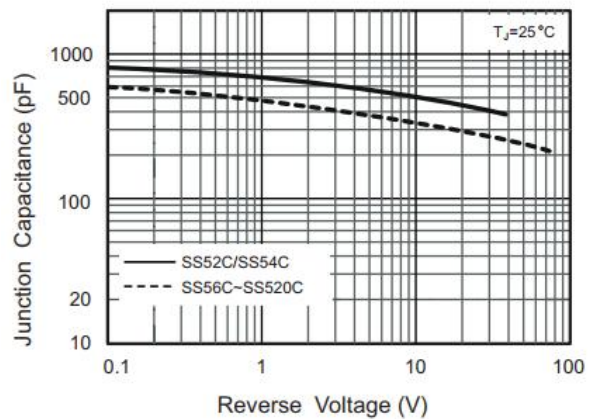


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

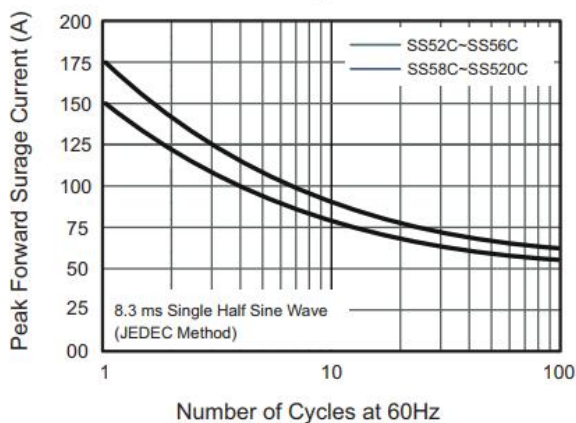
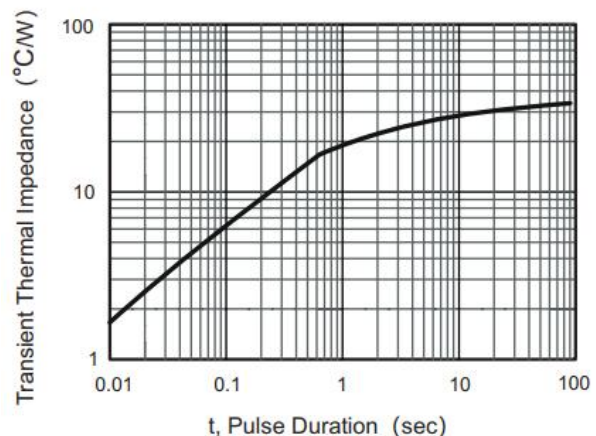


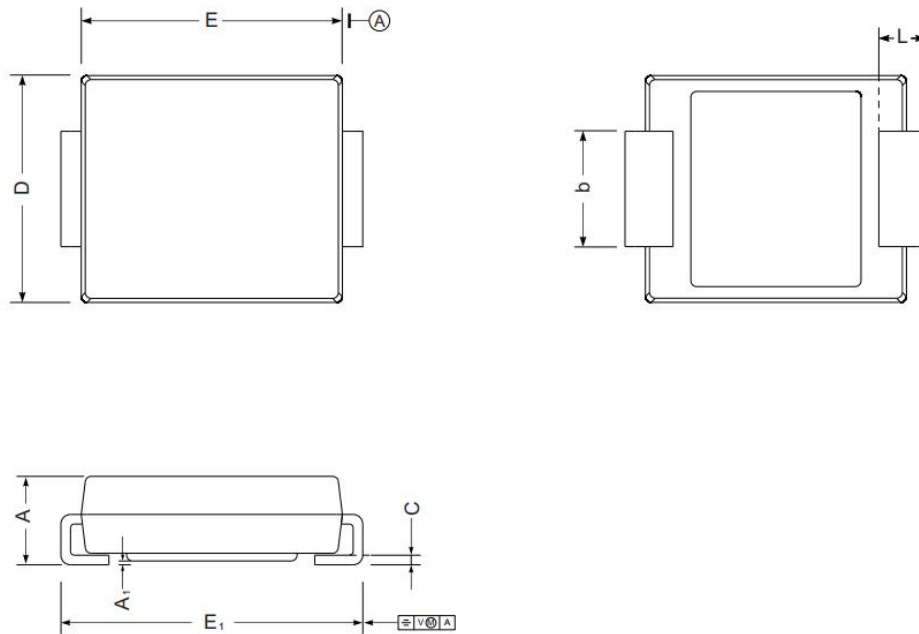
Fig.6- Typical Transient Thermal Impedance



Package Information

SMC

Dimensions in mm



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

