

Descriptions

This is Surface Mount Schottky Barrier Rectifier, Reverse Voltage: 20 to 200 V, Forward

Current:5.0A ,SMC package.

Features

- Low power loss
- High efficiency
- High forward surge current capability
- For use in low voltage
- High frequency inverters, and polarity protection applications
- For surface mounted applications
- Halogen free product.

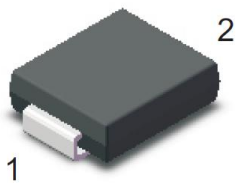
Applications

General purpose

Equivalent Circuit

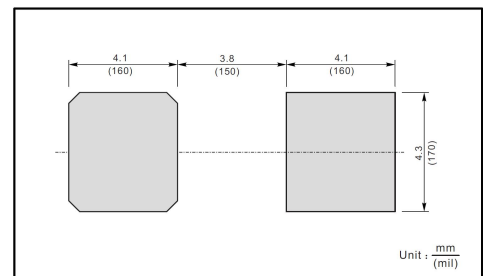


Pinning



PIN	DESCRIPTION
1	Cathode
2	Anode

The recommended mounting pad size



Marking

See Marking Instructions

Absolute Maximum Ratings(Ta=25°C)

Parameter	Symbol	Rating								Unit
		SS52C	SS54C	SS56C	SS58C	SS510C	SS512C	SS515C	SS520C	
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
Typical Junction Capacitance ¹⁾	C _i	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

Note:

- 1) Measured at 1MHz 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.

Electrical Characteristics(Ta=25°C)

Parameter	Symbol	Test Conditions	Rating								Unit
			SS52C	SS54C	SS56C	SS58C	SS510C	SS512C	SS515C	SS520C	
Max Instantaneous Forward Voltage	V _F	I _F =5.0A	0.55		0.70	0.85					V
Maximum DC Reverse Current at Rated DC Reverse Voltage	I _R	T _a =25°C	1.0								mA
		T _a =100°C	50								

Fig.1 Forward Current Derating Curve

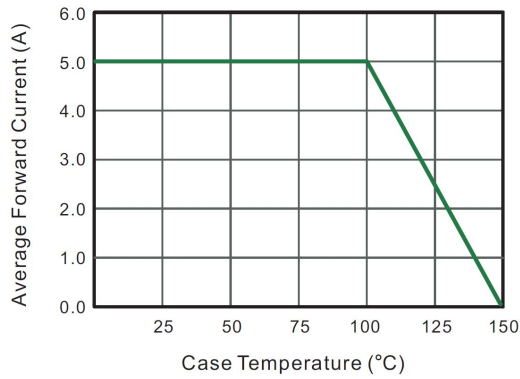


Fig.2 Typical Reverse Characteristics

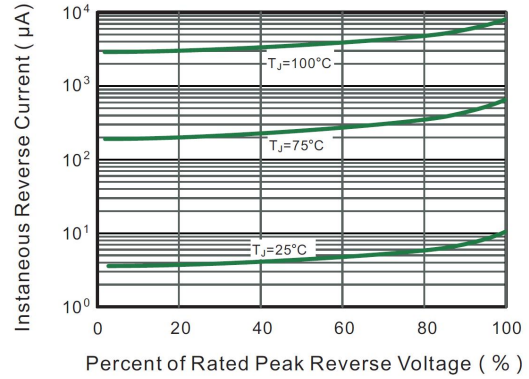


Fig.3 Typical Forward Characteristic

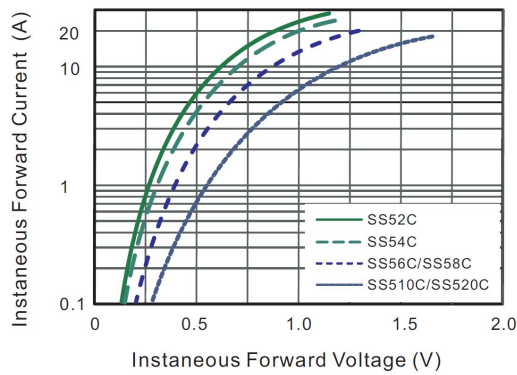


Fig.4 Typical Junction Capacitance

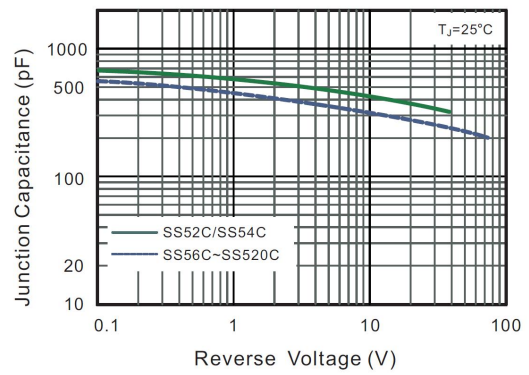


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

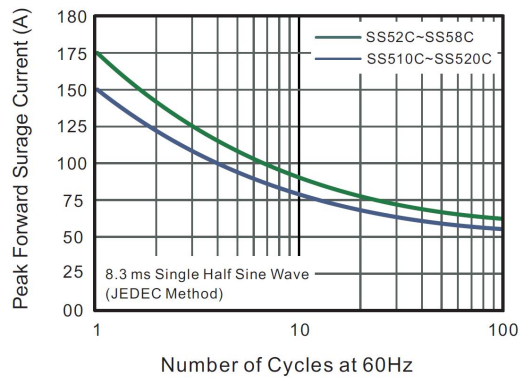
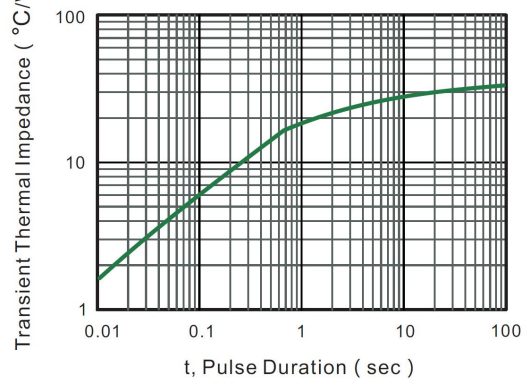


Fig.6- Typical Transient Thermal Impedance



Marking Instructions



Marking

Type number	Marking code
SS52C	SS52
SS54C	SS54
SS56C	SS56
SS58C	SS58
SS510C	SS510
SS512C	SS512
SS515C	SS515
SS520C	SS520

Note:

SS52: Product Type Code

****: Lot No. Code, The 1st * means:YM Code, The last 3 * means:little Lot No Code

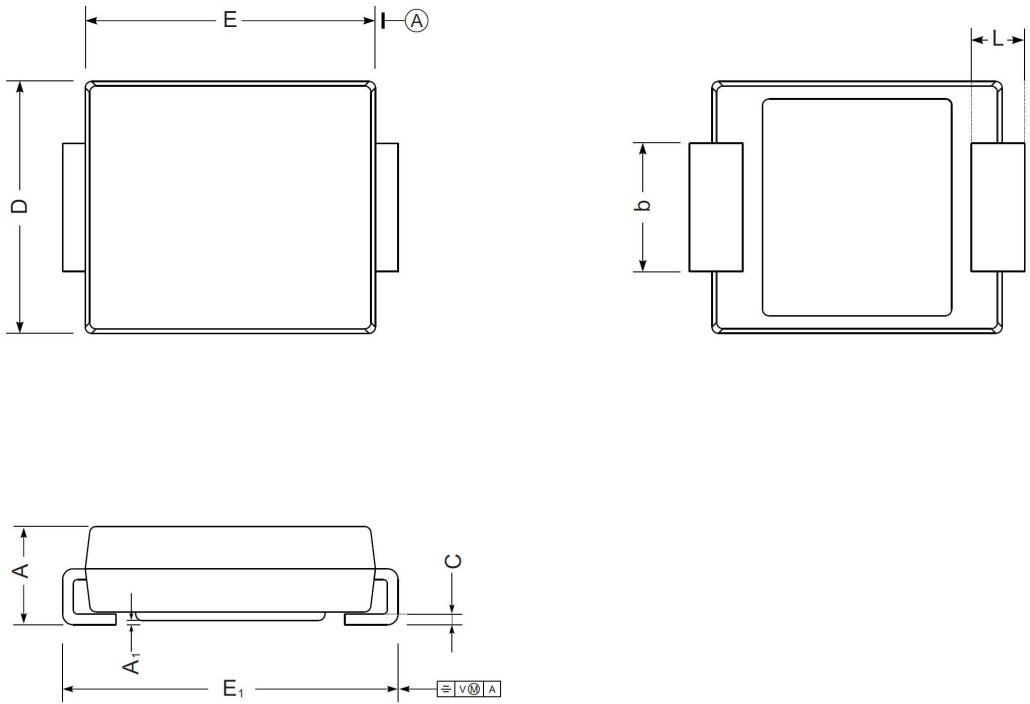
Packaging SPEC

REEL

Package Type	Units					Dimension (unit: mm ³)		
	Units/Reel	Reels/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Reel	Inner Box	Outer Box
SMC	3000	2	6000	6	36000	13" ×16	337X337X49	380X335X366

Package Dimensions

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