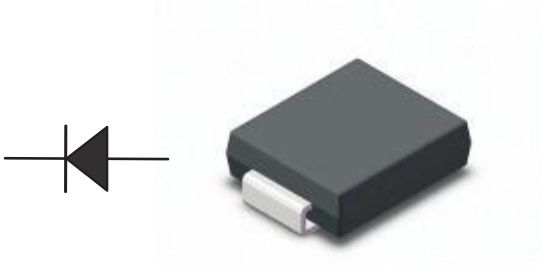
Surface Mount Schottky Barrier Rectifier

Parameter	Value	Unit
V_{RRM}	20~200	V
$I_{F(AV)}$	5.0	A



DO-214AB/SMC

Features

- Metal silicon junction, majority carrier conduction
- For surface mounted applications
- Low power loss, high efficiency
- High forward surge current capability

Applications

- For use in low-voltage, high-frequency inverters, free-wheeling applications, DC/DC converters, and polarity protection circuits.

Absolute Maximum Ratings and Characteristics (Ta=25℃ unless otherwise noted)

Parameter	Symbol	SS52	SS54	SS56	SS58	SS510	SS512	SS515	SS520	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	$I_{F(AV)}$	5.0								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 5A	V_F	0.45	0.55	0.70		0.85		0.9		V
Maximum DC Reverse Current Ta=25°C at Rated DC Reverse Voltage Ta=100°C	I_R	0.5 5								mA
Typical Junction Capacitance (1)	C_j	600			400					pF
Typical Thermal Resistance (2)	$R_{\theta JA}$	35								℃/W
Operating Junction Temperature Range	T_j	-55 ~ +150								℃
Storage Temperature Range	T_{stg}	-55 ~ +150								℃

(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.

Typical characteristics

Fig.1 Forward Current Derating Curve

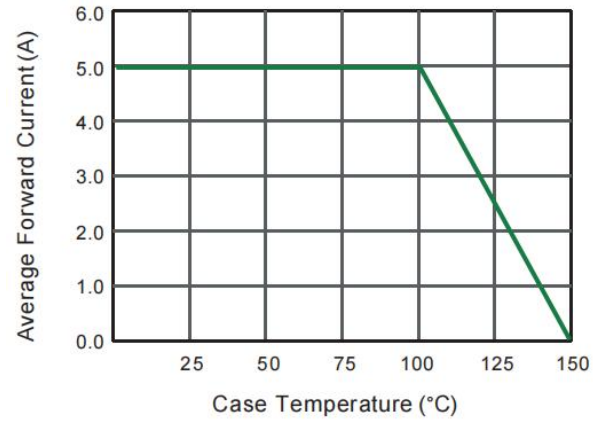


Fig.2 Typical Reverse Characteristics

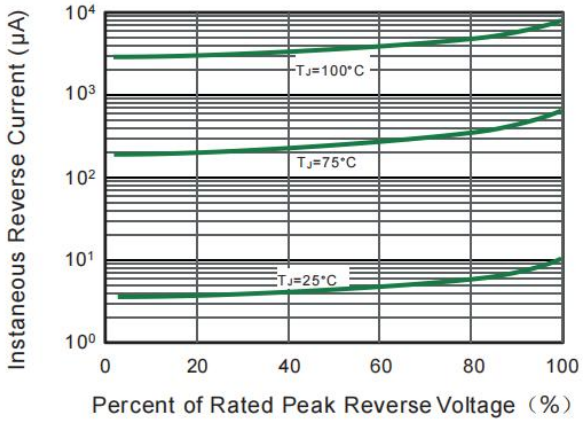


Fig.3 Typical Forward Characteristic

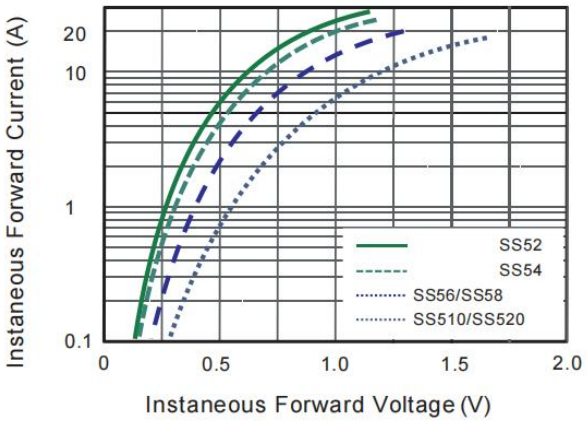


Fig.4 Typical Junction Capacitance

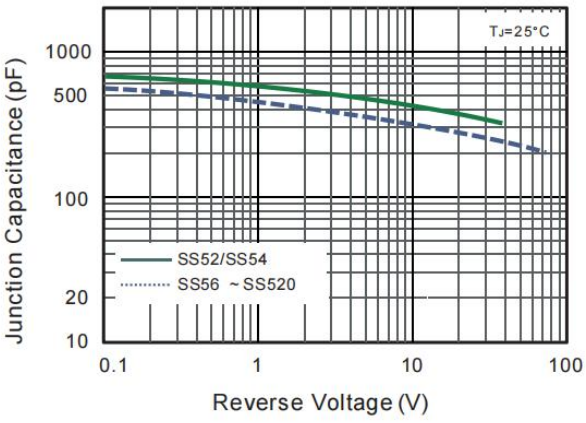


Fig.5 Maximum Non-Repetitive Peak Forward Surage Current

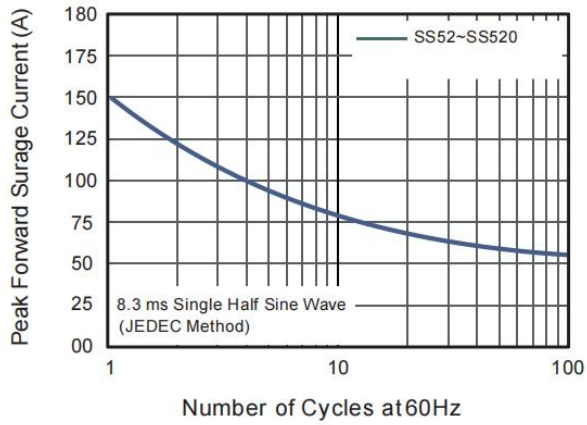
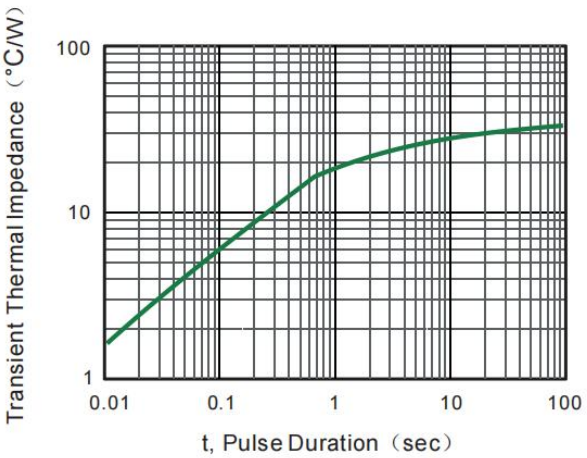


Fig.6- Typical Transient Thermal Impedance



Package Outlines

Plastic surface mounted package; 2 leads

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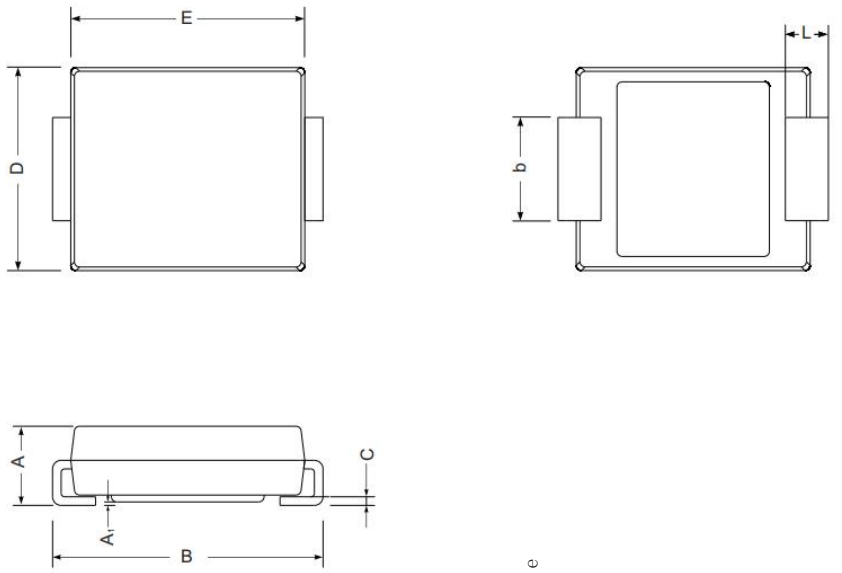
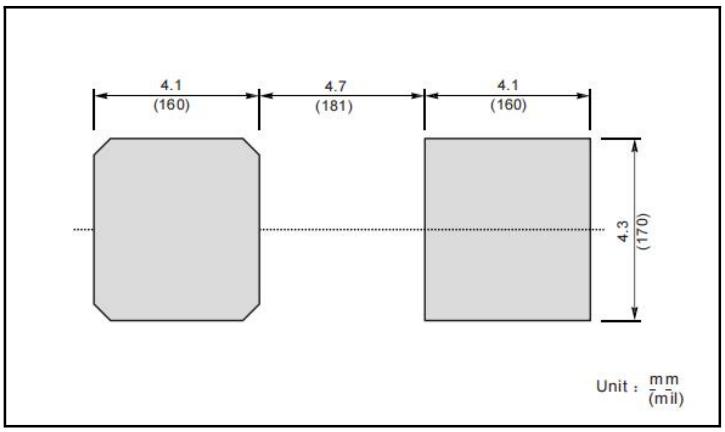


SMC mechanical data

UNIT		A	E	D	B	A_1	C	L	b
mm	max	2.62	7.1	6.2	8.3	0.21	0.31	1.6	3.25
	min	2.00	6.6	5.6	7.7	0.05	0.15	0.9	2.75
mil	max	103	280	244	327	8.3	12	63	128
	min	79	260	220	303	2.0	5.9	35	108

The recommended mounting pad size



Marking

Type number	Marking code
SS52	SS52
SS54	SS54
SS56	SS56
SS58	SS58
SS510	SS510
SS512	SS512
SS515	SS515
SS520	SS520

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