

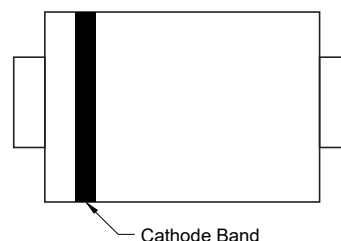
SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 200 Volts Forward Current - 5.0 Ampere

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

DO-214AA/SMB **RoHS**
COMPLIANT



Mechanical Data

Case : DO-214AA/SMB molded plastic body

Terminals :Solderable per MIL-STD-750,Method2026

Polarity : Cathode line denotes the cathode end

Position: Any

Approx. Weight : 0.095g / 0.003oz

Equivalent circuit



Absolute Maximum Ratings and Electrical characteristics

Ratings at 25°C ambient temperature unless otherwise specified.Single phase, half wave, 60Hz resistive or inductive load, apacitive load,derate by 20 %

Parameter	SYMBOLS	SS52B	SS54B	SS56B	SS58B	SS510B	SS512B	SS515B	SS520B	UNITS
Marking Code		SS52	SS54	SS56	SS58	SS510	SS512	SS515	SS520	
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 onrated load (JEDEC Method)	I _{FSM}	150								A
Maximum instantaneous forward voltage at 5.0A	V _F	0.55		0.70		0.85				V
Maximum DCreverse current at rated DCblocking voltage T _A =25°C T _A =125°C	I _R	1.0			0.3					mA
		50			25					
Typical junction capacitance (NOTE 1)	C _J	500			300					pF
Typical thermal resistance (NOTE 2)	R _{ΘJA}	50								°C/W
Operating junction temperature range	T _J	-55 to +150								°C
Storage temperature range	T _{STG}	-55 to +150								°C

Note:1.Measured at 1MHz and applied reverse voltage of 4.0V D.C.

2.PC.B.mounted with 0.2"X0.2"(5 X5 mm) copper pad areas.

Typical Characteristics

Fig.1 Forward Current Derating Curve

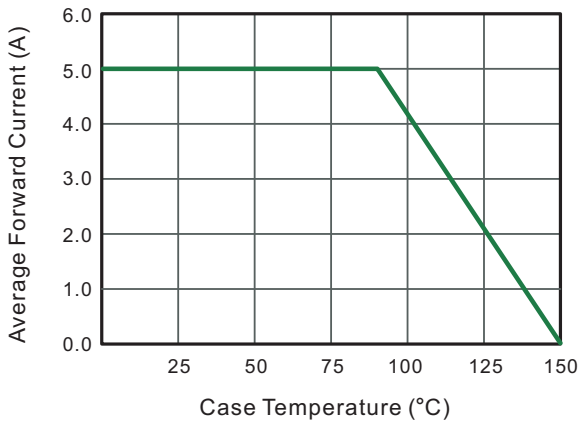


Fig.2 Typical Reverse Characteristics

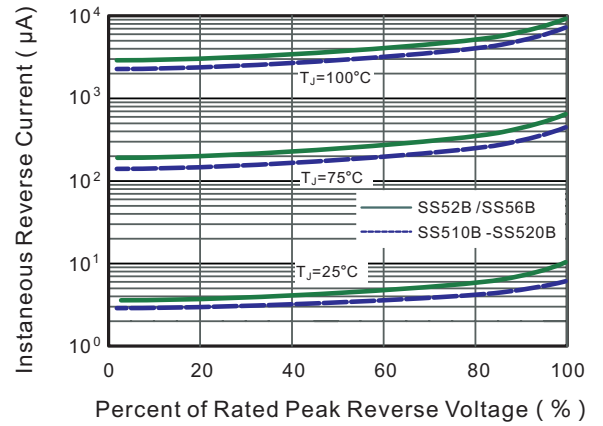


Fig.3 Typical Forward Characteristic

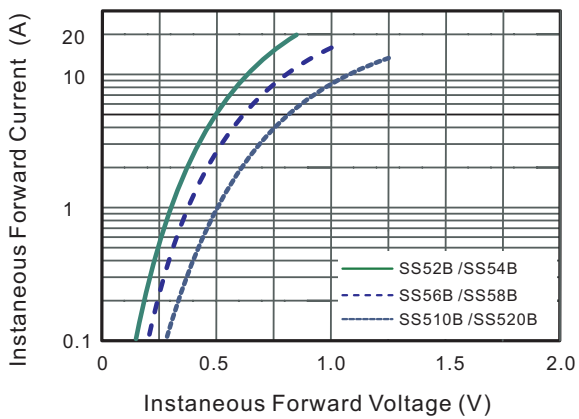


Fig.4 Typical Junction Capacitance

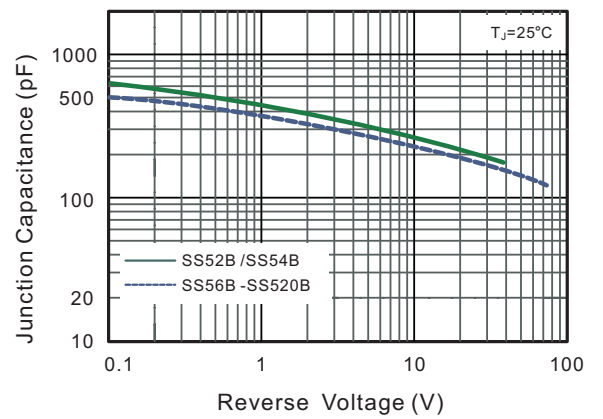


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

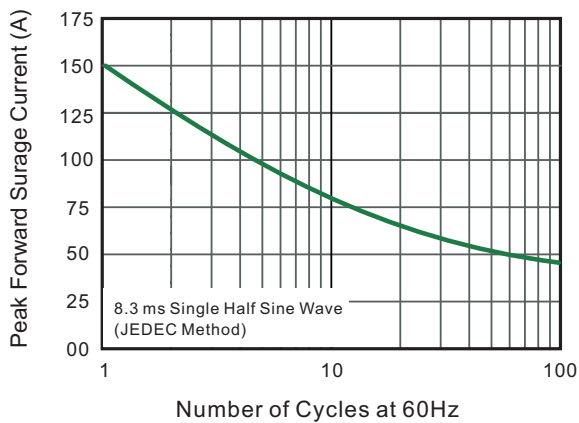
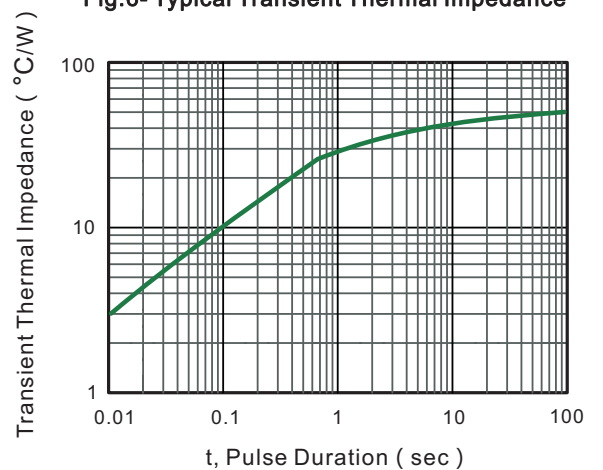
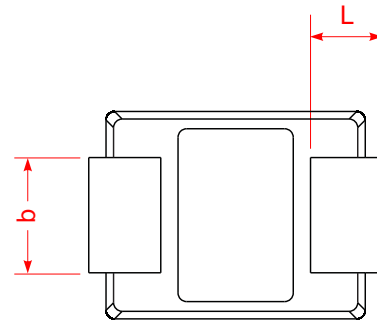
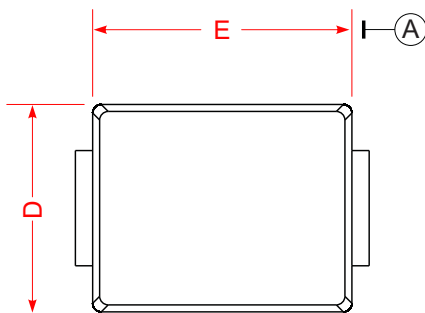
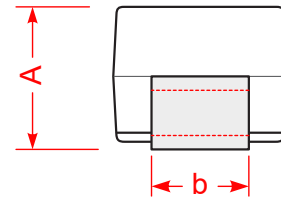
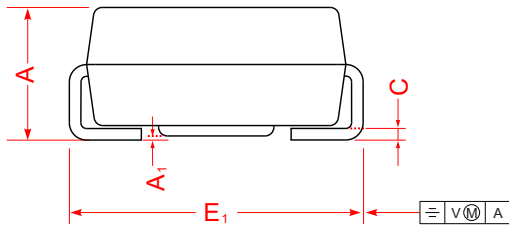


Fig.6- Typical Transient Thermal Impedance

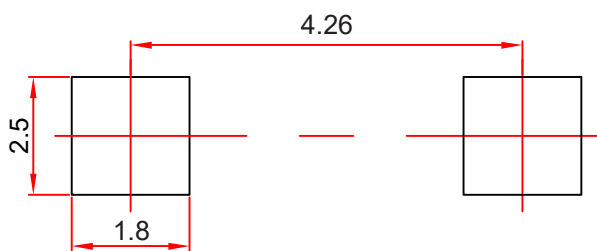


DO-214AA/SMB Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	2.13	2.44	0.084	0.096
C	0.15	0.31	0.006	0.012
D	3.30	3.95	0.130	0.156
E	4.06	4.70	0.160	0.185
E ₁	5.08	5.59	0.200	0.220
b	1.90	2.20	0.075	0.087
L	0.80	1.50	0.031	0.059
A ₁	0.2 REF		0.008 REF	

DO-214AA/SMB Suggested Pad Layout



- Note:
1. Controlling dimension: in/millimeters.
 2. General tolerance: $\pm 0.05\text{mm}$.
 3. The pad layout is for reference purposes only.