



SS52B THRU SS5200B

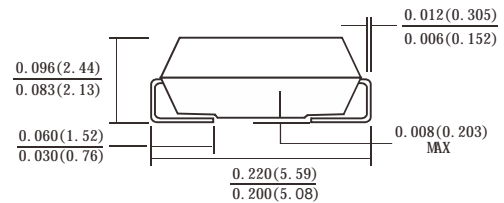
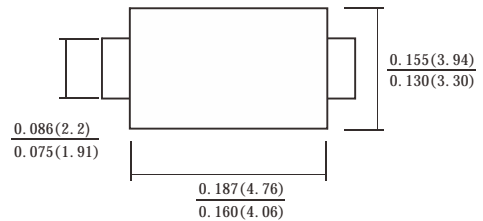
Surface Mount Schottky Rectifiers

Features

- Low profile package
- Ideal for automated placement
- Fast switching for high efficiency
- High forward surge capability
- High temperature soldering:
260°C/10 seconds at terminals
- Component in accordance to
RoHS 2002/95/1 and WEEE 2002/96/EC



SMB(DO-214AA)



Dimensions in inches and (millimeters)

Mechanical Date

- **Case:** JEDEC DO-214AA molded plastic body
- **Terminals:** Solder plated, solderable per J-STD-002B and JESD22-B102D
- **Polarity:** Laser band denotes cathode end

Maximum Ratings and Electrical Characteristics Rating at 25 °C

ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%

Type Number	SYMBOL	SS 52B	SS 54B	SS 545B	SS 56B	SS 58B	SS 510B	SS 5150B	SS 5200B	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	40	45	60	80	100	150	200	V
Maximum RMS Voltage	V_{RMS}	14	28	31	42	56	70	105	140	V
Maximum DC Blocking Voltage	V_{DC}	20	40	45	60	80	100	150	200	V
Average Rectified Output Current @ $T_L = 100^\circ C$	$I_{F(AV)}$	5.0								A
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	150								A
Forward Voltage @ $I_F = 5.0A$ (Note 1)	V_{FM}	0.55		0.7	0.85		0.95		V	
Peak Reverse Current @ $T_A = 25^\circ C$	I_R	0.1				0.05				mA
At Rated DC Blocking Voltage @ $T_A = 100^\circ C$		10				5				
I^2t Rating for fusing ($t < 8.3ms$)	I^2t	41.5								A^2s
Typical Junction Capacitance (Note 2)	C_J	12								pF
Typical Thermal Resistance per leg (Note 3)	$R_{\theta JA}$	65								$^\circ C/W$
Operating Temperature Range	T_J	-55 to +150								$^\circ C$
Storage Temperature Range	T_{STG}	-55 to +150								$^\circ C$

Note: 1. Pulse Test with PW=300usec, 1% Duty Cycle.

2. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C

3. Thermal Resistance from Junction to lead mounted on P.C.B. with 0.3" x 0.3" (8.0 mm x 8.0 mm) copper pad areas.



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Characteristic Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

Fig. 1 Forward Current Derating Curve

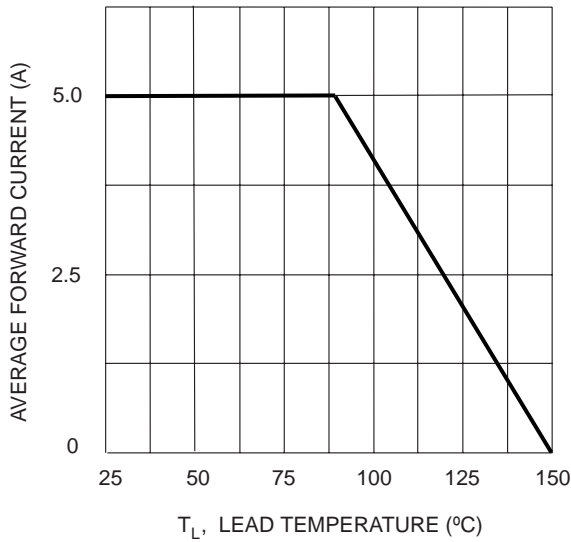


Fig. 2 Typ. Forward Characteristics

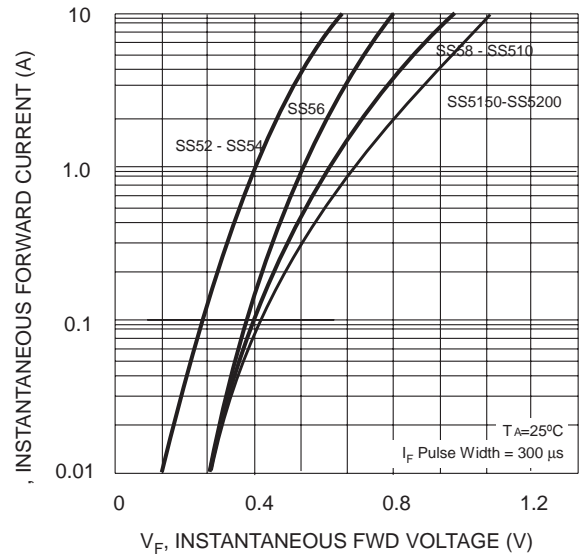


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

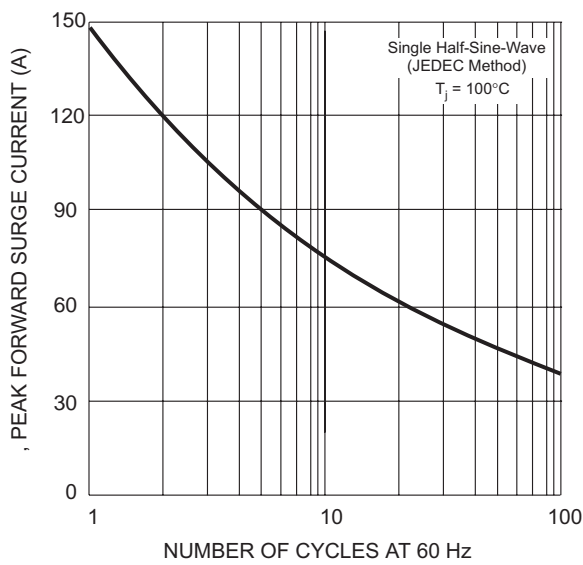


FIG.4 TYPICAL REVERSE CHARACTERISTIC

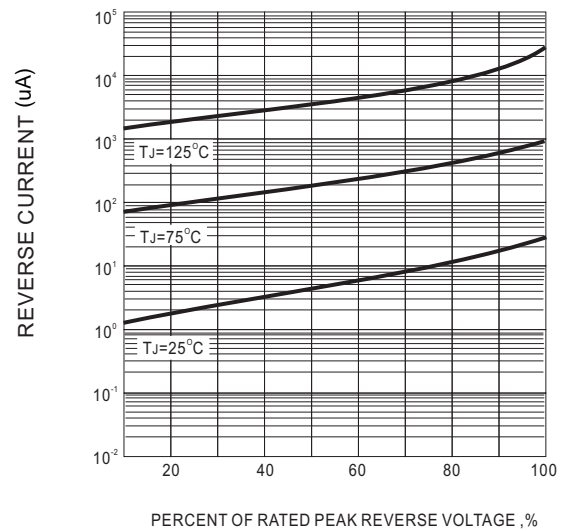


FIG.5 MOUNTING PAD LAYOUT

