

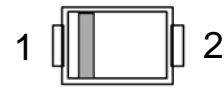
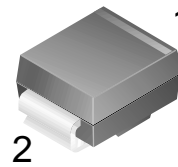
## 5 Ampere Surface Mount Schottky Barrier Rectifier



## SS52B-SS520B

## Features:

- Metal silicon junction, majority carrier conduction
- For surface mounted applications
- Low power loss, high efficiency
- Fast switching for high efficiency
- High forward surge current capability
- For use in low voltage, high frequency inverters

DO-214AA  
(SMB)

1.Cathode 2. Anode

## Absolute Maximum Ratings\* (TA=25°C Unless otherwise noted)

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

Parameter	Symbols	SS52B	SS54B	SS56B	SS58B	SS510B	SS512B	SS515B	SS520B	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	$V_F$	0.55	0.70	0.85			0.95		V	
Maximum DC Reverse Current at Rated DC Reverse Voltage $T_a = 25^\circ\text{C}$ $T_a = 100^\circ\text{C}$	$I_R$	0.3 10		0.2 5			0.1 2		mA	
Typical Junction Capacitance <sup>(1)</sup>	$C_j$	500	300						pF	
Typical Thermal Resistance <sup>(2)</sup>	$R_{\theta JA}$	45								°C/W
Operating Junction Temperature Range	$T_j$	-55 ~ +125			-55 ~ +150					°C
Storage Temperature Range	$T_{stg}$	-55 ~ +150								°C

(1) Measured at 1 MHz and applied reverse voltage of 4 VDC

(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

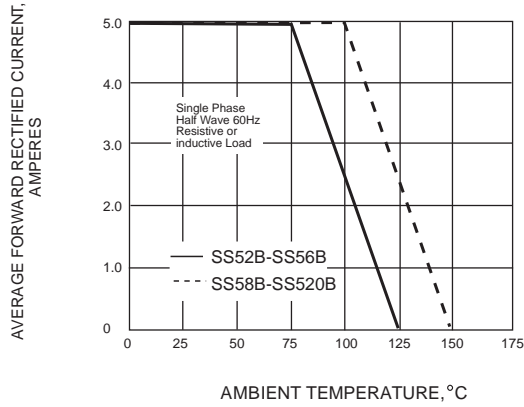


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

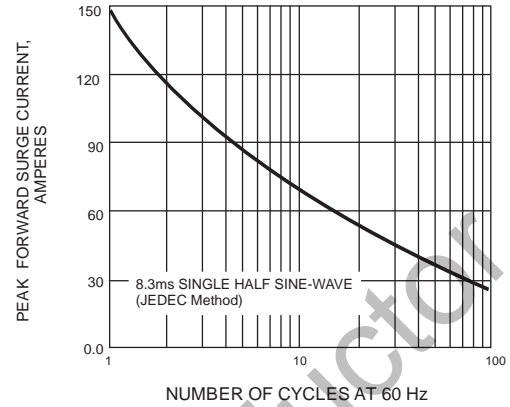


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

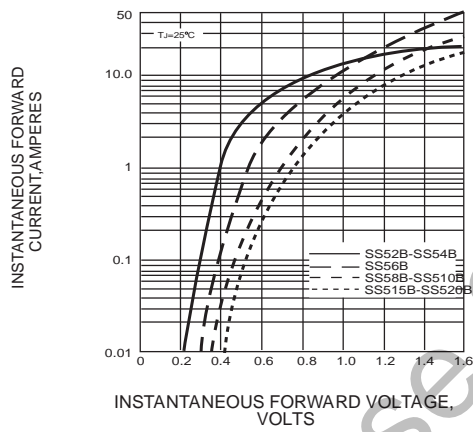


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

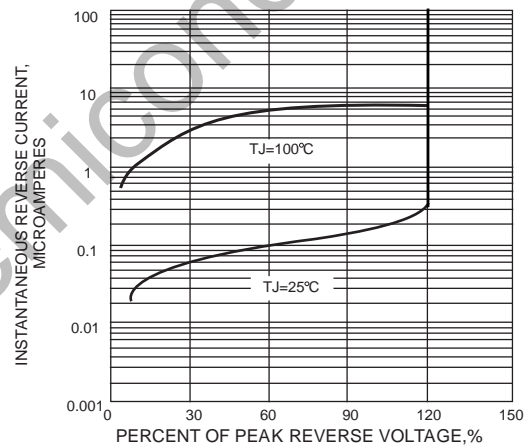
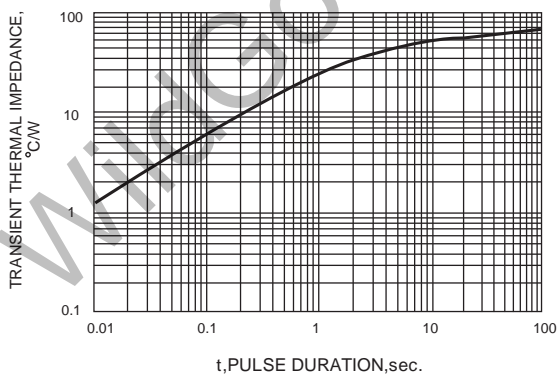
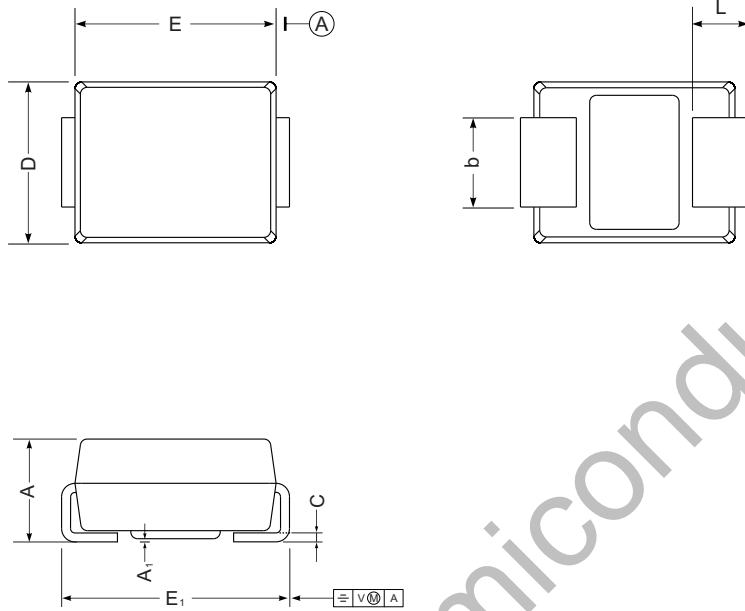


FIG. 5-TYPICAL TRANSIENT THERMAL IMPEDANCE



**Package Dimension**

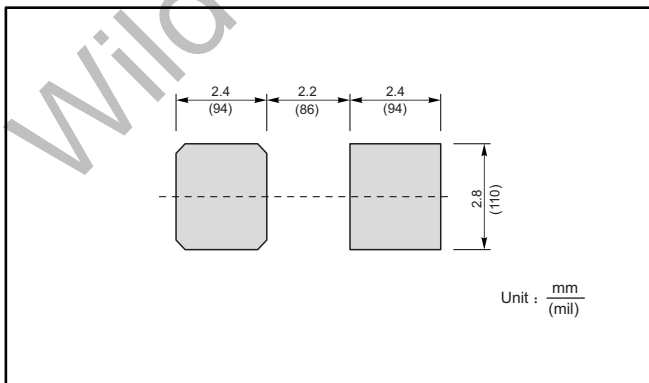
**DO-214AA(SMB)**



SMB mechanical data

UNIT		A	E	D	E <sub>1</sub>	A <sub>1</sub>	L	C	b
mm	max	2.44	4.70	3.94	5.59	0.20	1.5	0.305	2.2
	min	2.13	4.06	3.3	5.08	0.05	0.8	0.152	1.9
mil	max	96	185	155	220	7.9	59	12	87
	min	84	160	130	200	2.0	32	6	75

**The recommended mounting pad size**



**Marking**

Type number	Marking code
SS52B	SS52
SS54B	SS54
SS56B	SS56
SS58B	SS58
SS510B	SS510
SS512B	SS512
SS515B	SS515
SS520B	SS520

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