

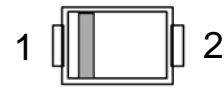
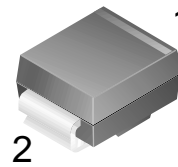
5 Ampere Surface Mount Schottky Barrier Rectifier



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 ⁽¹⁾	C_j	500	300						pF	
Typical Thermal Resistance ⁽²⁾	$R_{\theta JA}$	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 VD.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

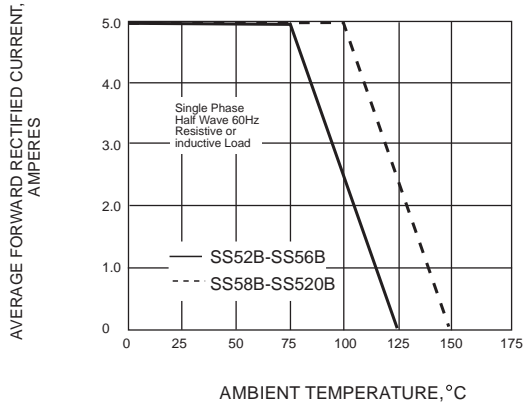


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

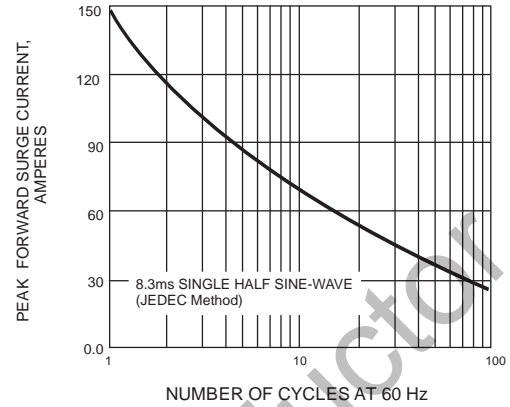


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

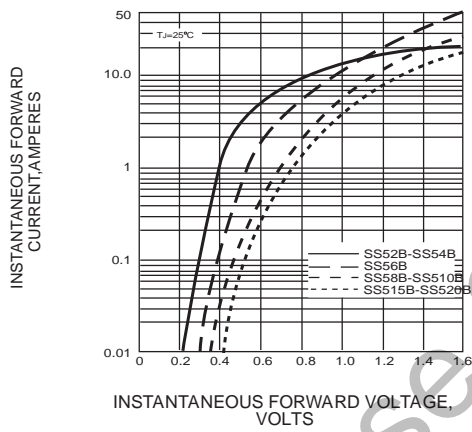


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

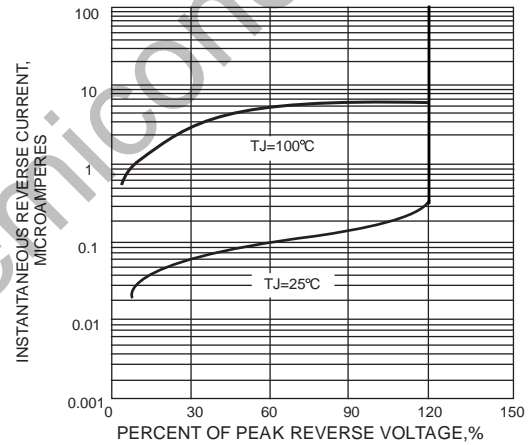
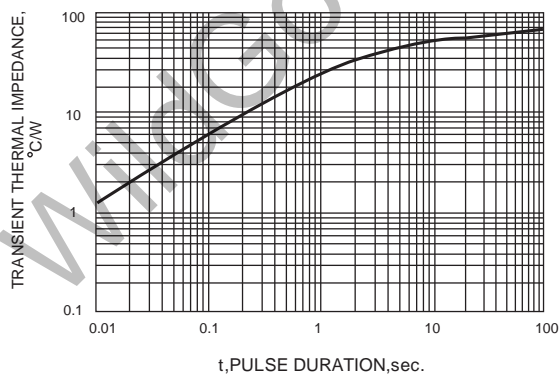
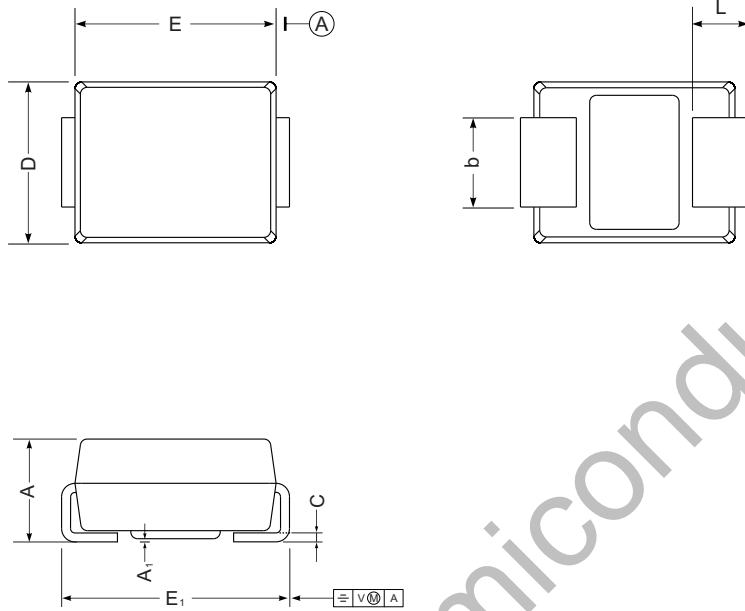


FIG. 5-TYPICAL TRANSIENT THERMAL IMPEDANCE



Package Dimension

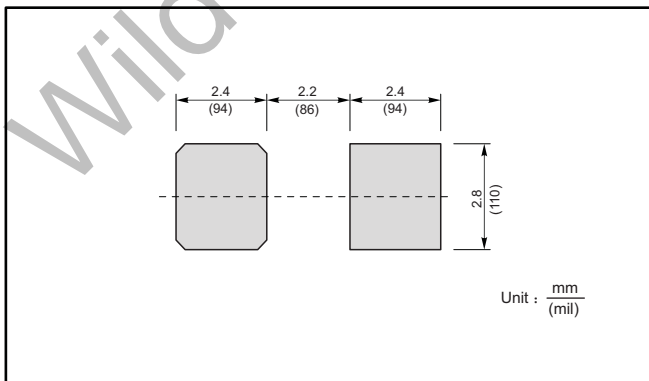
DO-214AA(SMB)



SMB mechanical data

UNIT		A	E	D	E ₁	A ₁	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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