SS52B THRU SS5200B

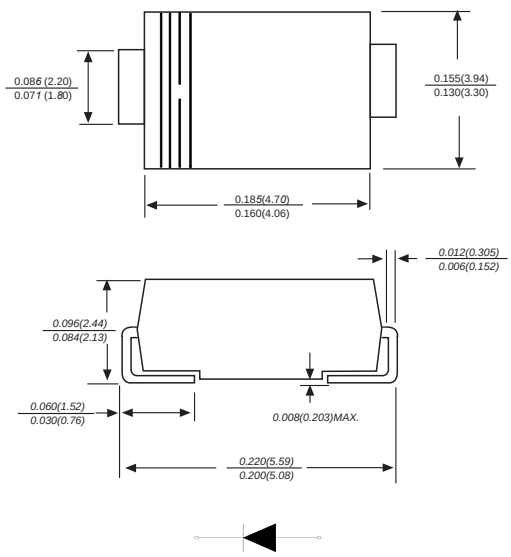
Reverse Voltage - 20 to 200 Volts Forward Current - 5.0 Ampere

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Metal silicon junction,majority carrier conduction
- Low power loss,high efficiency
- Built-in strain relief,ideal for automated placement
- High forward surge current capability
- High temperature soldering guaranteed: 250 °C/10 seconds at terminals

DO-214AA/SMB



Dimensions in inches and (millimeters)

Mechanical Data

Case : JEDEC DO-214AA/SMB molded plastic body
Terminals : Solderable per MIL-STD-750,Method 2026
Polarity : Color band denotes cathode end Mounting Position : Any
Weight : 0.003 ounce, 0.095 grams

Maximum Ratings And Electrical Characteristics

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

Parameter	SYMBOLS	SS52B	SS53B	SS54B	SS55B	SS56B	SS58B	SS510B	SS5150B	SS5200B	UNITS
Marking Code		MDD SS52B	MDD SS53B	MDD SS54B	MDD SS55B	MDD SS56B	MDD SS58B	MDD SS510B	MDD SS5150B	MDD SS5200B	
Maximum repetitive peak reverse voltage	V_{RMM}	20	30	40	50	60	80	100	150	200	V
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	56	70	105	140	V
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	80	100	150	200	V
Maximum average forward rectified current at TL(see fig.1)	$I_{(AV)}$	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 DC reverse current T_A=25℃	I_R	1.0			0.3						mA
at rated DCblocking voltage T_A=125℃		50			25						
Typical junction capacitance (NOTE 1)	C_J	500			300						pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	50.0									℃/W
Operating junction temperature range	T_J	-55 to +150									℃
Storage temperature range	T_{STG}	-55 to +150									℃

Note:1.Measured at 1.0MHz and applied reverse voltage of 4.0V D.C.
2.P.C.B.mounted with2.0x2.0"(5.0x5.0cm) copperpad areas.
3.The typical data above is for reference only.

Typical Characterisitics

Fig.1 Forward Current Derating Curve

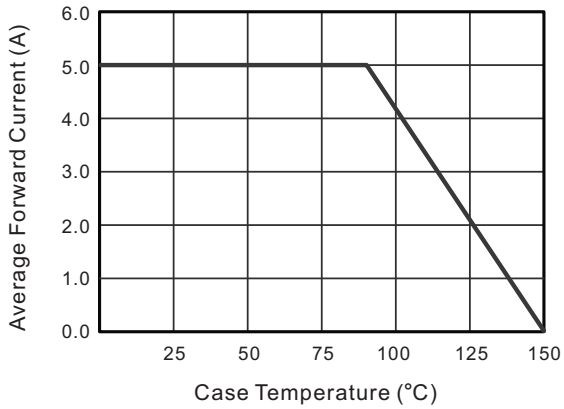


Fig.2 Typical Reverse Characteristics

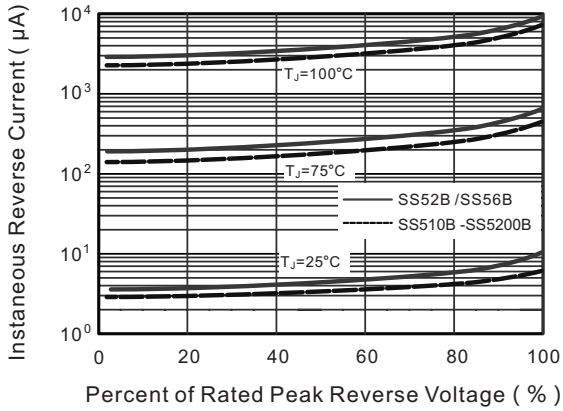


Fig.3 Typical Forward Characteristic

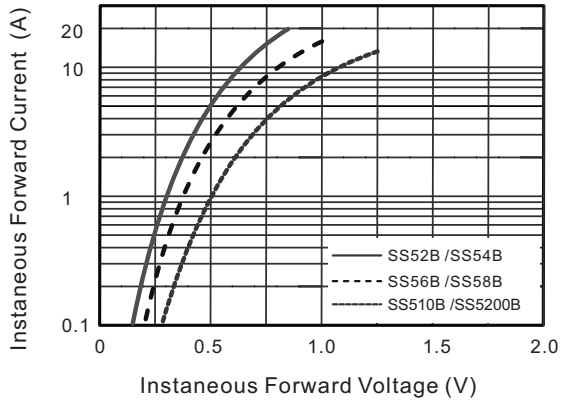


Fig.4 Typical Junction Capacitance

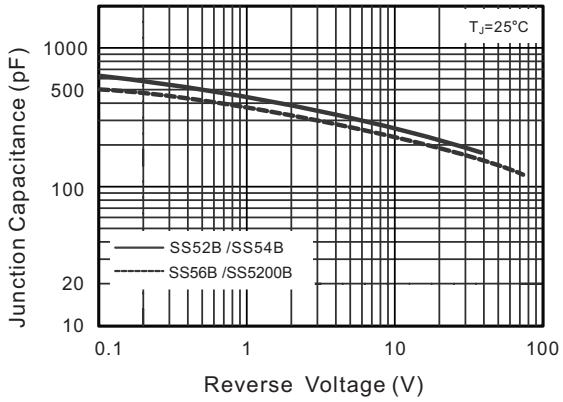


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

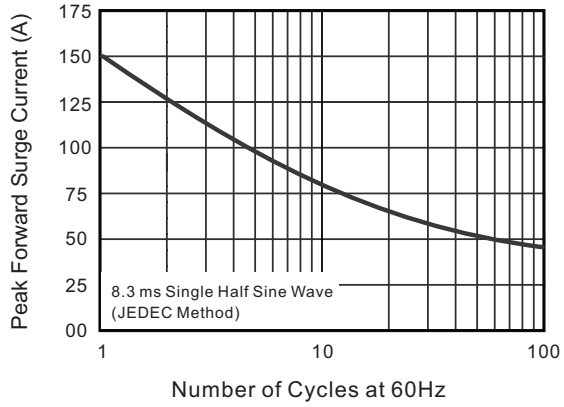
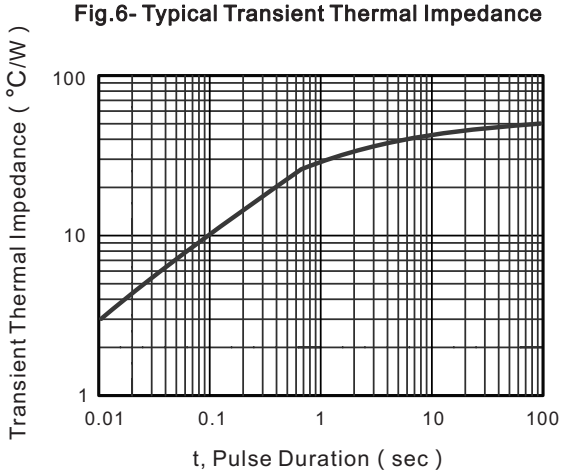
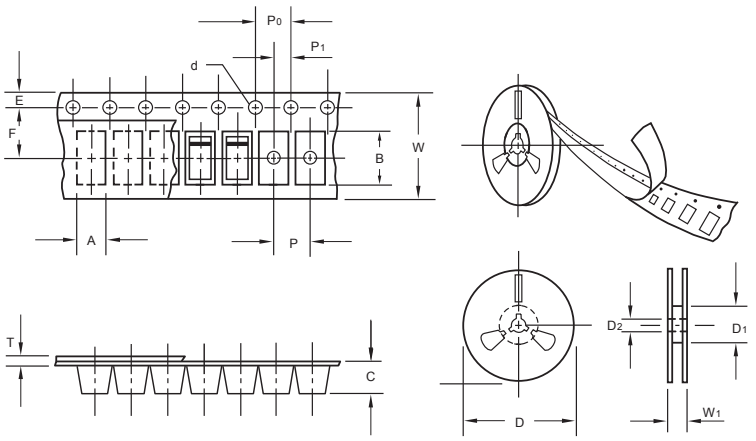


Fig.6- Typical Transient Thermal Impedance



The curve above is for reference only.

Packing information



unit:mm

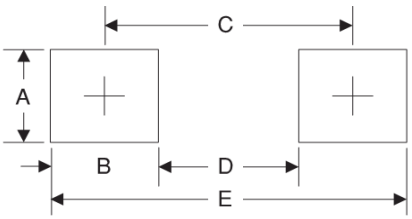
Item	Symbol	Tolerance	SMB
Carrier width	A	0.1	3.81
Carrier length	B	0.1	5.41
Carrier depth	C	0.1	2.42
Sprocket hole	d	0.05	1 50
13" Reel outside diameter	D	2.0	330.00
13" Reel inner diameter	D_1	min	50.00
Feed hole diameter	D_2	0.5	13.00
Sprocket hole position	E	0.1	1.75
Punch hole position	F	0.1	5.55
Punch hole pitch	P	0.1	8.00
Sprocket hole pitch	P_0	0.1	4.00
Embossment center	P_1	0.1	2.00
Overall tape thickness	T	0.1	0.30
Tape width	W	0.3	12.00
Reel width	W_1	1.0	12.30

Note:Devices are packed in accor dance with EIA standar RS-481-A and specifications listed above.

Reel packing

PACKAGE	REEL SIZE	REEL (pcs)	COMPONENT SPACING (mm)	BOX (pcs)	INNER BOX (mm)	REEL DIA, (mm)	CARTON SIZE (mm)	CARTON (pcs)	APPROX. GROSS WEIGHT (kg)
SMB	13"	3,000	4.0	10,000	190*190*41	330	365*365*360	80,000	14.0

Suggested Pad Layout



Symbol	Unit (mm)	Unit (inch)
A	2.8	0.110
B	2.4	0.094
C	4.6	0.181
D	2.2	0.086
E	7.0	0.276

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