




SPECIFICATION SHEET

SPECIFICATION SHEET NO.	N0310- SMBSS34B00S304
DATE	Mar. 10, 2021
REVISION	A0
DESCRIPTION	SMD Schottky Barrier Rectifier, 2 Pads, SMB series, SS34B Type Reverse Voltage 40V Max. Forward Current 3.0A Max. Operating Temp. Range -55°C ~+125°C, Package in Tape/Reel, 3000pcs/Reel RoHS/RoHS III compliant
CUSTOMER	
CUSTOMER PART NUMBER	
CROSS REF. PART NUMBER	
ORIGINAL PART NUMBER	MDD SS34B
PART CODE	SMBSS34B00S304

VENDOR APPROVE			
Issued/Checked/Approved			
DATE: March 10, 2021			

CUSTOMER APPROVE	
DATE:	

SMD SCHOTTKY BARRIER RECTIFIER SMB SERIES



MAIN FEATURE

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

APPLICATION

- For surface mounted applications

RFQ

[Request For Quotation](#)

PART CODE GUIDE

SMB	SS34B00	S	304
1	2	3	4

- 1) **SMB**: SMD Schottky Barrier Rectifier, 2 Pads, Package SMB series
- 2) **SS34B00**: Type code for original part number SS34B
- 3) **S**: Package code, Tape/reel, 3000pcs/reel.
- 4) **304**: Specification code for Reverse Voltage 40V Max. Forward Current 3.0A Max.

MORE ITEMS AVAILABLE

SMBSS22B00S202	SMBSS23B00S203	SMBSS24B00S204	SMBSS25B00S205	SMBSS26B00S206
SMBSS28B00S208	SMBSS210B0S210	SMBSS2150BS215	SMBSS2200BS220	
SMBSS32B00S302	SMBSS33B00S303	SMBSS34B00S304	SMBSS35B00S305	SMBSS36B00S306
SMBSS38B00S308	SMBSS310B0S310	SMBSS3150BS315	SMBSS3200BS320	
SMBSS52B00S502	SMBSS53B00S503	SMBSS54B00S504	SMBSS55B00S505	SMBSS56B00S506
SMBSS58B00S508	SMBSS510B0S510	SMBSS5150BS515	SMBSS5200BS520	
SMBSS82B00S802	SMBSS83B00S803	SMBSS84B00S804	SMBSS845B0S845	SMBSS86B00S806
SMBSS88B00S808	SMBSS810B0S810			
SMBSS102B0SA02	SMBSS103B0SA03	SMBSS104B0SA04	SMBSS1045BSA45	SMBSS106B0SA06
SMBSS108B0SA08	SMBSS1010BSA10			
SMBS2A0000S205	SMBS2B0000S210	SMBS2D0000S220	SMBS2G0000S240	SMBS2J0000S260
SMBS2K0000S280	SMBS2M0000S20A			
SMBS3A0000S305	SMBS3B0000S310	SMBS3D0000S320	SMBS3G0000S340	SMBS3J0000S260
SMBS3K0000S380	SMBS3M0000S30A			

SMD SCHOTTKY BARRIER RECTIFIER SMB SERIES

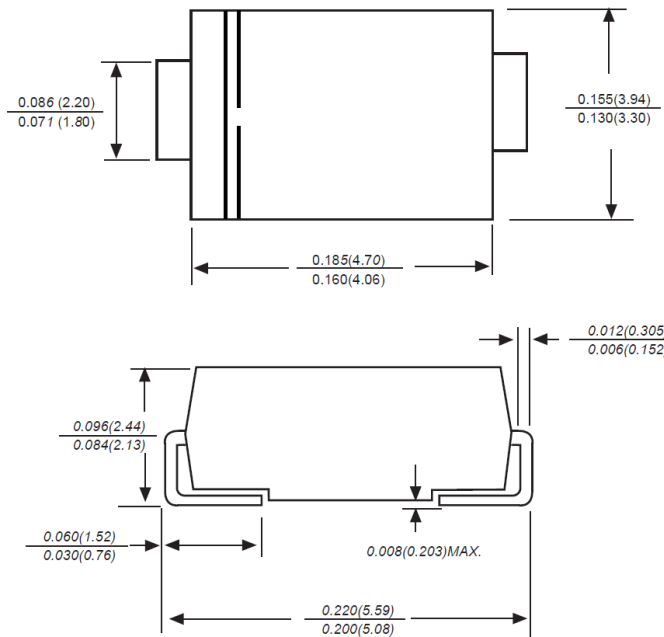
DIMENSION (Unit: Inch/mm)

Image for reference

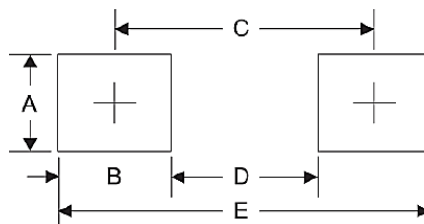


Marking: SS34B

SMB/DO-214AA



Recommend Pad Layout



Symbol	Unit (inch)	Unit (mm)
A	0.110	2.80
B	0.094	2.40
C	0.181	4.60
D	0.086	2.20
E	0.276	7.00

SMD SCHOTTKY BARRIER RECTIFIER SMB SERIES
MECHANICAL DATA

Case	Terminals	Polarity	Mounting Position	Weight per piece
JEDEC SMB/DO-214AA molded plastic body	Solder plated, Solderable per MIL-STD-750, Method 2026	Polarity symbol marking on case	Any	0.0030 Ounce, 0.0850 grams

MAX. RATING & CHARACTERISTICS

Parameter	SYMBOLS	VALUE			UNITS
		Min.	Typical	Max.	
Repetitive peak reverse voltage	V _{RRM}			40	Volts
RMS voltage	V _{RMS}			28	Volts
DC blocking voltage	V _{DC}			40	Volts
Average forward output rectified current at TL (see fig.1)	I _{AV}			3.0	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}		100		A
Instantaneous forward voltage at 3.0A	V _F			0.55	Volts
DC reverse current at rated DC blocking voltage	I _R			0.5	mA
				20	mA
Junction capacitance (NOTE 2)	C _J		500		pF
Thermal resistance (Note 3)	R _{QJA}		55.0		°C/W
Operating junction temperature range	T _J	-55		+120	°C
Storage temperature range	T _{STG}	-55		+150	°C

Note

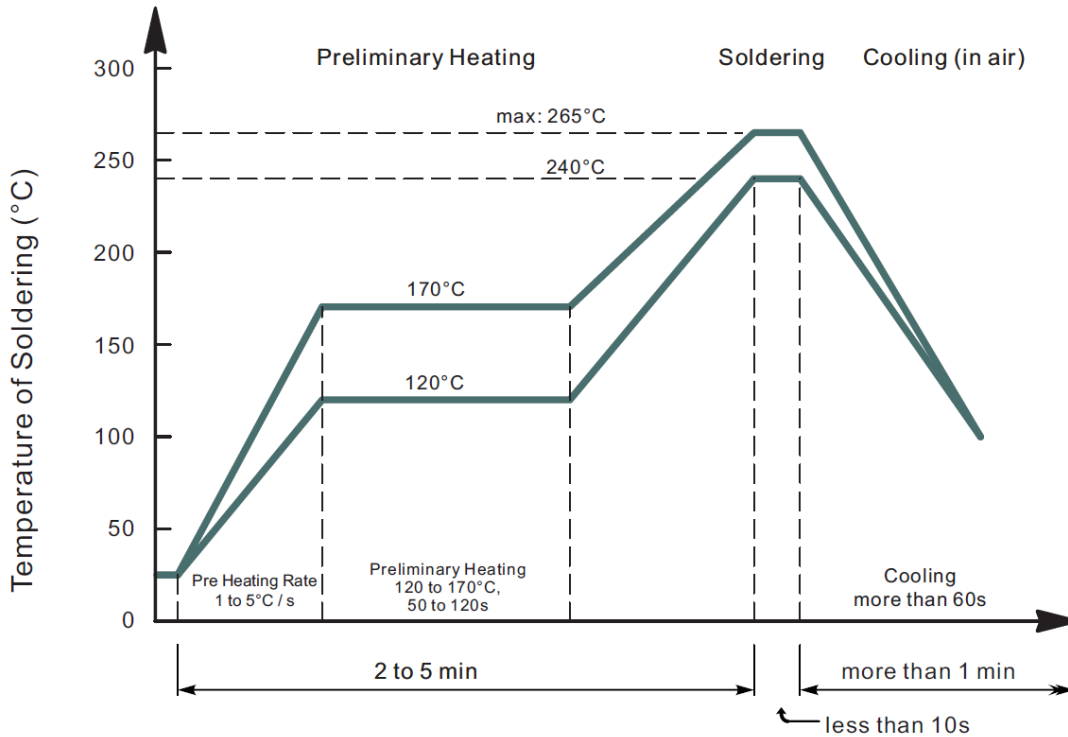
- Ratings at 25 C ambient temperature unless otherwise specified. Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.
- Measured at 1.0MHz and applied reverse voltage of 4.0Voltage
- P.C.B. mounted with 0.2x0.2"(5.0x5.0mm) copper pad areas.

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RELIABILITY

Number	Experiment Items	Experiment Method And Conditions	Reference Documents
1	Solder Resistance Test	Test 260°C± 5°C for 10 ± 2 sec. Immerse body into solder 1/16" ± 1/32"	MIL-STD-750D METHOD-2031.2
2	Solderability Test	230°C ±5°C for 5 sec.	MIL-STD-750D METHOD-2026.1 0
3	Pull Test	1 kg in axial lead direction for 10 sec.	MIL-STD-750D METHOD-2036.4
4	Bend Test	0.5Kg Weight Applied To Each Lead, Bending Arcs 90 °C ± 5 °C For 3 Times	MIL-STD-750D METHOD-2036.4
5	High Temperature Reverse Bias Test	TA=100°C for 1000 Hours at VR=80% Rated VR	MIL-STD-750D METHOD-1038.4
6	Forward Operation Life Test	TA=25°C Rated Average Rectified Current	MIL-STD-750D METHOD-1027.3
7	Intermittent Operation Life Test	On state: 5 min with rated IRMS Power Off state: 5 min with Cool Forced Air. On and off for 1000 cycles.	MIL-STD-750D METHOD-1036.3
8	Pressure Cooker Test	15 PSIG, TA=121°C, 4 hours	MIL-S-19500 APPENOIXC
9	Temperature Cycling Test	-55°C~+125°C; 30 Minutes For Dwelled Time 5 minutes for transferred time. Total: 10 cycles.	MIL-STD-750D METHOD-1051.7
10	Thermal Shock Test	0°C for 5 minutes., 100°C for 5minutes, Total: 10 cycles	MIL-STD-750D METHOD-1056.7
11	Forward Surge Test	8.3ms Single Sale Sine-wave One Surge.	MIL-STD-750D METHOD-4066.4
12	Humidity Test	TA=65°C, RH=98% for 1000 hours.	MIL-STD-750D METHOD-1021.3
13	High Temperature Storage life Test	150°C for 1000 Hours	MIL-STD-750D METHOD-1031.5

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SUGGESTED REFLOW PROFILE (For Reference Only)



- Recommended peak temperature is over 245°C, If peak temperature is below 245 °C, you may adjust the following parameters; time length of peak temperature (longer), time length of soldering (longer), thickness of solder paste (thicker)
- Welding shall not exceed 2 times
- Remark: lead free solder paste (96.5 sn/3.0 Ag/0.5Cu)

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RATINGS AND CHARACTERISTIC CURVES (For Reference Only)

Fig.1 Forward Current Derating Curve

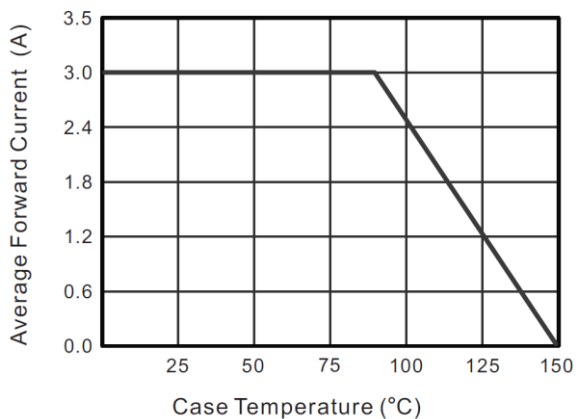


Fig.2 Typical Reverse Characteristics

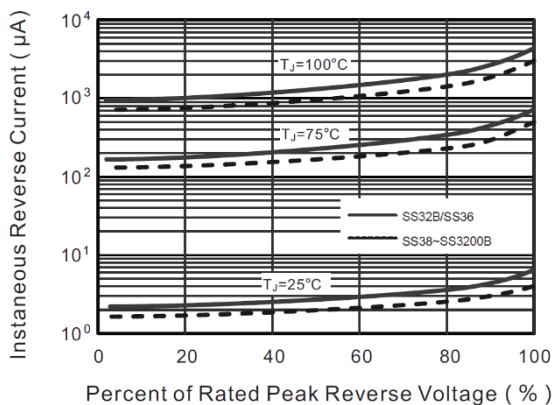


Fig.3 Typical Forward Characteristic

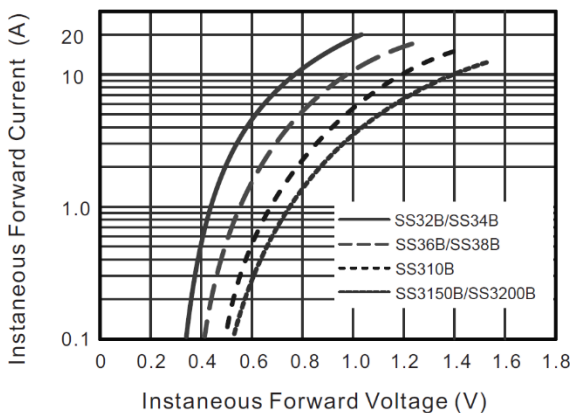


Fig.4 Typical Junction Capacitance

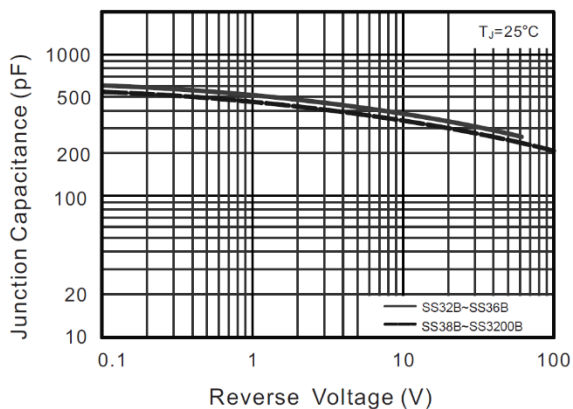


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

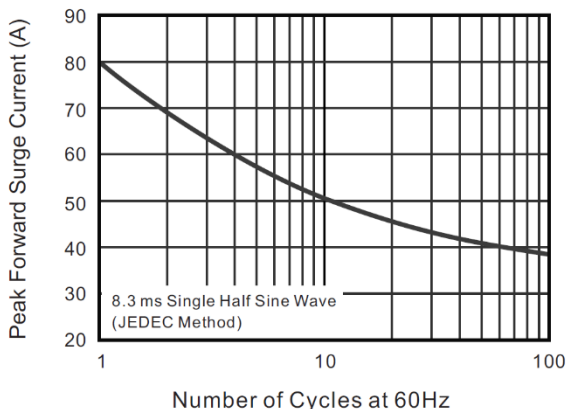
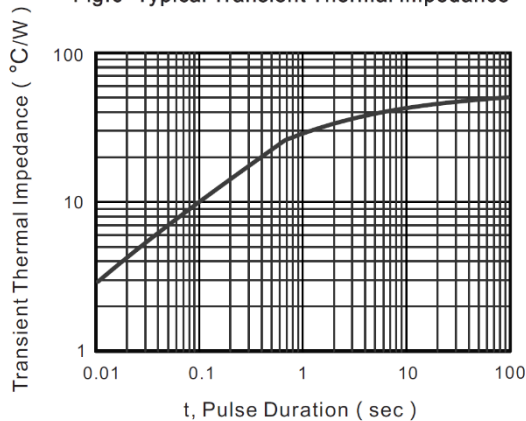
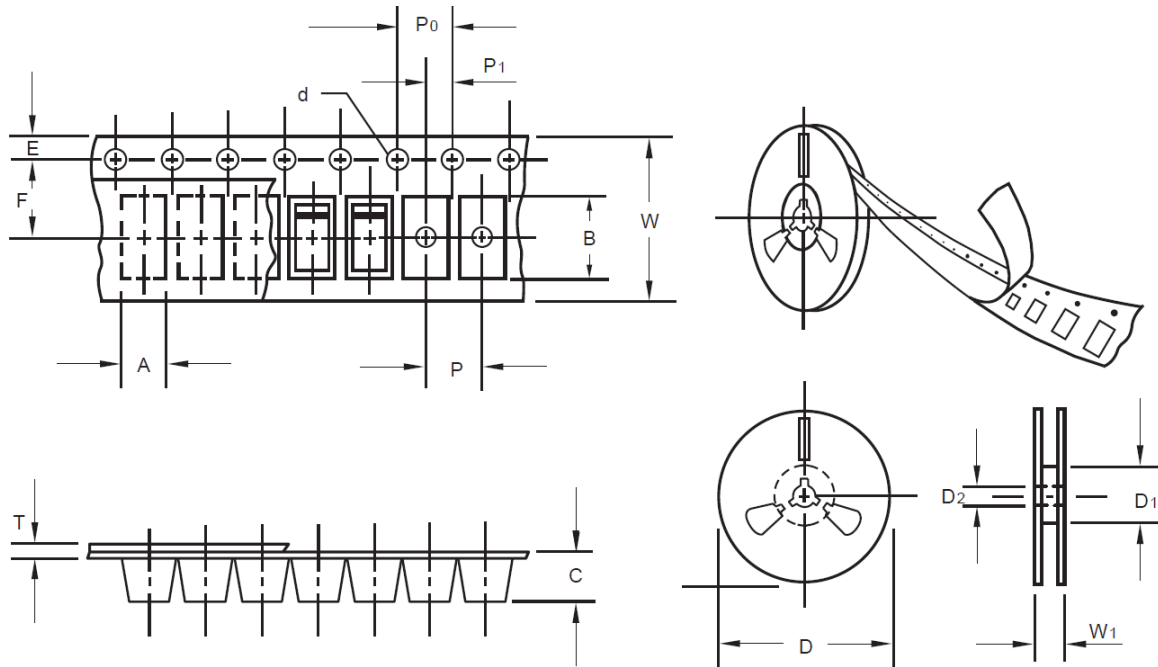


Fig.6- Typical Transient Thermal Impedance



SMD SCHOTTKY BARRIER RECTIFIER SMB SERIES
TAPE/REEL (Unit: mm)

All Devices are packed in accordance with EIA standard RS-481-A and specifications.

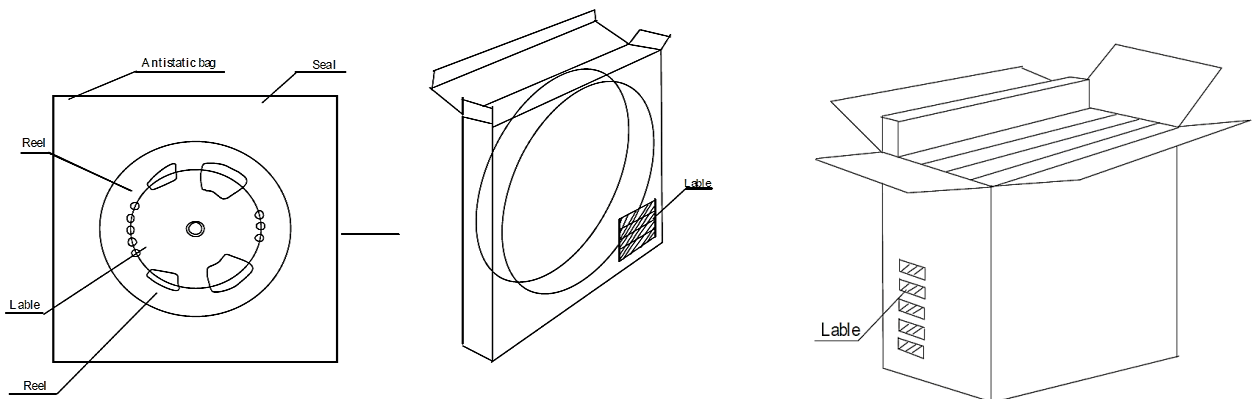


Item	Symbol	Tolerance	SMB/DO-214AA
Carrier width	A	0.1	3.81
Carrier Length	B	0.1	5.41
Carrier Depth	C	0.1	2.42
Sprocket hole	d	0.05	1.50
13" Reel outside diameter	D	2.0	330.00
13" Reel inner diameter	D1	Min.	50.00
7" Reel outside diameter	-	-	-
7" Reel inner diameter	-	-	-
Feed hole diameter	D2	0.5	13.00
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	P0	0.1	4.00
Embossment center	P1	0.1	2.00
Overall tape thickness	T	0.1	0.30
Tape width	W	0.3	12.00
Reel width	W1	1.0	12.30

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PACKAGE

Case Code	Reel Size	MPQ (pcs)	Component Spacing (mm)	Qty. Per Box (pcs)	Inner Box L*W*H (mm)	Reel Size (mm)	Carton size L*W*H (mm)	Qty. Per Carton (pcs)	G. W (kg)
SMB	13"	3,000		6,000	190*190*41	330	370*370*380	48,000	13.0



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