




SPECIFICATION SHEET

SPECIFICATION SHEET NO.	N0310- SOD323103AS0S4
DATE	Mar. 10, 2021
REVISION	A0
DESCRIPTION	SMD Small Signal Schottky diodes, SOD-323 series, 2 pads, SD103AWS Type Reverse Voltage 40V Max. Forward Current 350mA Max. Operating Temp. Range -65°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 SD103AWS
PART CODE	SOD323103AS0S4

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

CUSTOMER APPROVE	
DATE:	

SMD SMALL SIGNAL SCHOTTKY DIODES SOD323 SERIES

MAIN FEATURE

- Low forward voltage drop
- Guard ring construction for transient protection
- Negligible reverse recovery time



APPLICATION

- For printed circuit board

RFQ

[Request For Quotation](#)

PART CODE GUIDE

SOD323	103A	S	0S4
1	2	3	4

- 1) **SOD323**: SMD Small Signal Schottky diodes, 2 pads, SOD-323 series code
- 2) **103A**: Type code for SD103AWS
- 3) **S**: Package code, Tape/reel, 3000pcs/reel.
- 4) **0S4**: Marking code for "S4" on the case surface, Different Marking for different specification.

MORE ITEMS AVAILABLE

SOD323101AS0S1	SOD323101BS0S2	SOD323101CS0S3		
SOD323103AS0S4	SOD323103BS0S5	SOD323103CS0S6		
SOD3231060SS21	SOD3231070S0SG			

SMD SMALL SIGNAL SCHOTTKY DIODES SOD323 SERIES

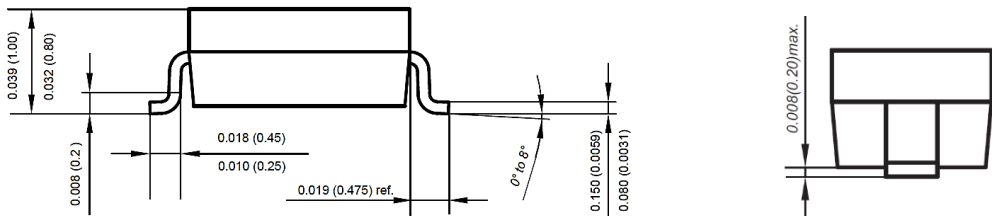
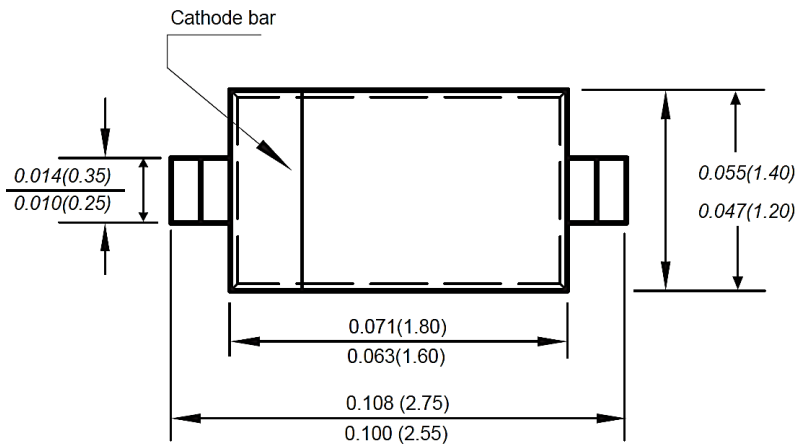
DIMENSION (Unit: Inch/mm)

Image for reference

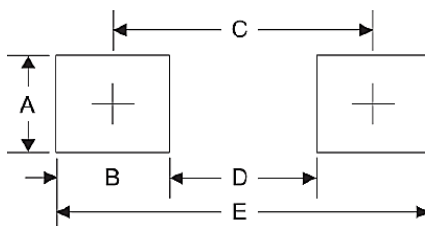


Marking: S4

SOD-323



Recommend Pad Layout



Symbol	Unit (inch)	Unit (mm)
A	0.028	0.70
B	0.028	0.70
C	0.085	2.15
D	0.071	1.80
E	0.112	2.85

SMD SMALL SIGNAL SCHOTTKY DIODES SOD323 SERIES
MECHANICAL DATA

Case	Terminals	Polarity	Mounting Position	Weight per piece
JEDEC SOD-323 molded plastic body	Solder plated, Solderable per MIL-STD-750, Method 2026	Polarity symbol marking on case	Any	0.0007 Ounce, 0.0021 grams

ABSOLUTE MAX. RATING AT 25 °C

Parameter	SYMBOLS	VALUE			UNITS
		Min.	Typical	Max.	
Repetitive peak reverse voltage	V _{RRM}			40	Volts
Working peak reverse voltage	V _{RMS}			40	Volts
DC Blocking voltage	V _{DC}			40	Volts
RMS voltage	V _{R(RMS)}			28	Volts
Forward continuous current	I _{FM}			350	mA
Repetitive peak forward current @t 1.0s	I _{FRM}			1.50	A
Power Dissipation	P _d			200	mW
Thermal resistance junction to ambient	R _{QA}			300	°C/W
Operating Junction temperature range	T _J	-65		+125	°C
Storage temperature range	T _{STG}	-65		+125	°C

CHARACTERISTICS AT Ta= 25 °C

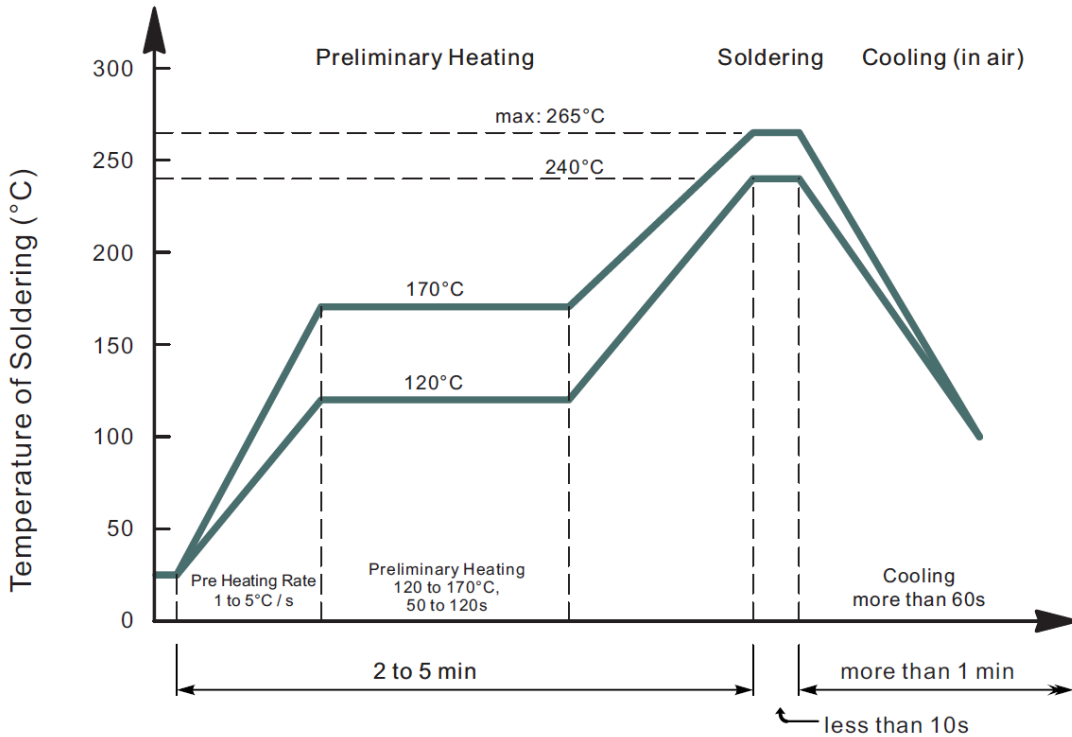
Parameter	SYMBOLS	VALUE			UNIT	Condition
		Min.	Typ.	Max.		
Reverse breakdown Voltage Reverse	V _{(BR)R}	40			V	I _R = 10 μA
Forward voltage	V _F			0.37	V	I _F = 20mA
				0.60	V	I _F = 200mA
Reverse current	I _{RM}			5.0	μA	V _R = 30 V
Capacitance between terminals	C _T		50		pF	V _R = 0V, f = 1.0MHz
Reverse recovery time	t _{rr}		10		ns	I _F = I _R = 200mA I _{rr} = 0.1 * I _R , R _L = 100 Ω

SMD SMALL SIGNAL SCHOTTKY DIODES SOD323 SERIES
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

SMD SMALL SIGNAL SCHOTTKY DIODES SOD323 SERIES

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)

SMD SMALL SIGNAL SCHOTTKY DIODES SOD323 SERIES

RATINGS AND CHARACTERISTIC CURVES (For Reference Only)

FIG. 1- TYPICAL FORWARD CHARACTERISTICS

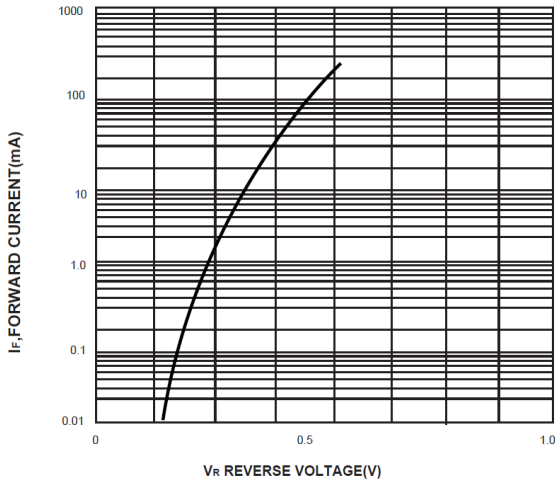
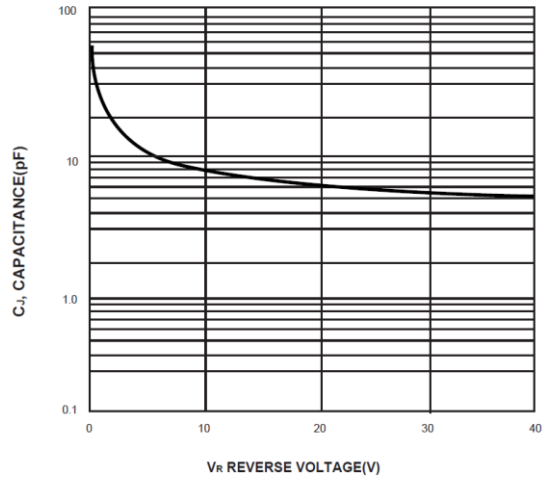
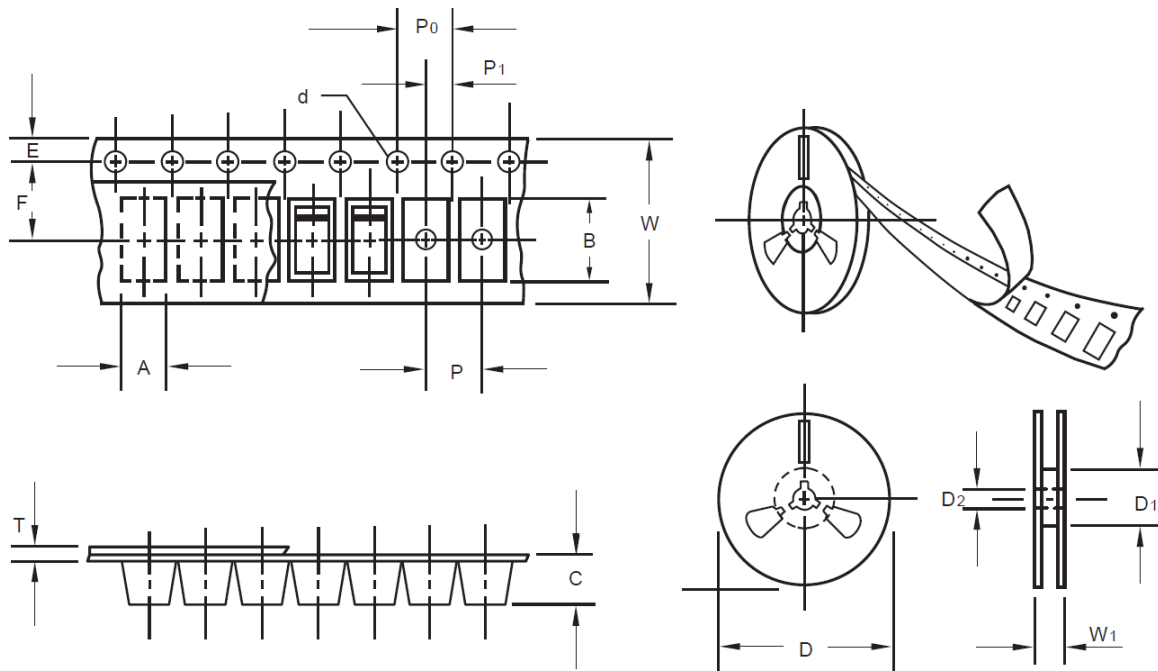


FIG. 2-TYP. JUNCTION CAPACITANCE VS REVERSE VOLTAGE



SMD SMALL SIGNAL SCHOTTKY DIODES SOD323 SERIES
TAPE/REEL (Unit: mm)

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

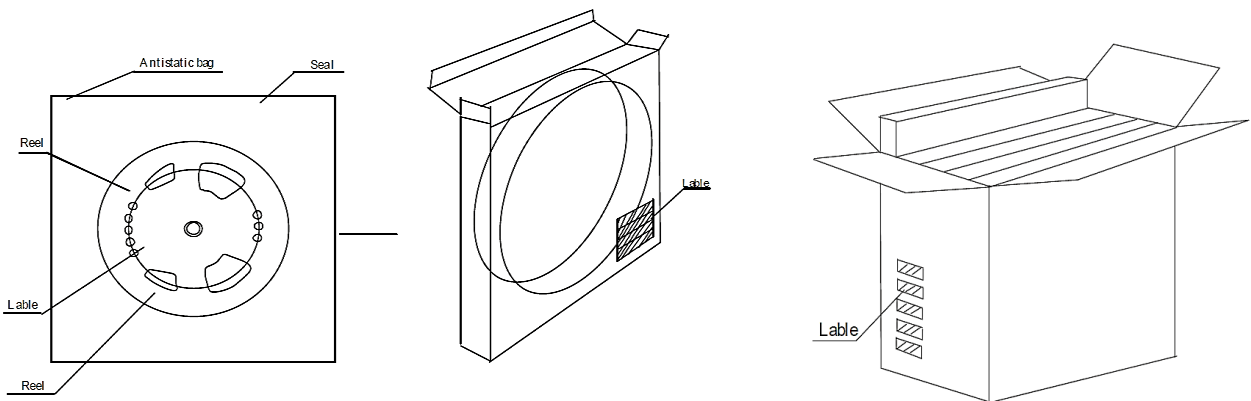


Item	Symbol	Tolerance	SO-323
Carrier width	A	0.1	2.10
Carrier Length	B	0.1	4.00
Carrier Depth	C	0.1	1.60
Sprocket hole	d	0.05	1.55
13" Reel outside diameter	-	-	-
13" Reel inner diameter	-	-	-
7" Reel outside diameter	D	2.0	178.00
7" Reel inner diameter	D1	Min.	50.00
Feed hole diameter	D2	0.5	13.00
Sprocket hole position	E	0.1	1.75
Punch hole position	F	0.1	3.50
Punch hole pitch	P	0.1	4.00
Sprocket hole pitch	P0	0.1	4.00
Embossment center	P1	0.1	2.00
Overall tape thickness	T	0.1	0.25
Tape width	W	0.3	8.15
Reel width	W1	1.0	10.50

SMD SMALL SIGNAL SCHOTTKY DIODES SOD323 SERIES

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)
SOD-323	7"	3,000	-	24,000	210*208*203	178	400*400*250	180,000	8.0



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