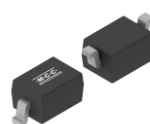


Product Summary

Parameter	Rating		
	SD101AWS	SD101BWS	SD101CWS
V_{RRM}	60 V	50 V	40 V
$V_F \text{ Max @ } 15\text{mA}$	1 V	0.95 V	0.9 V
$I_{F(AV)}$	15mA	15mA	15mA
$I_R \text{ Max}$	200 nA	200 nA	200 nA



SOD-323

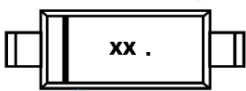
Features

- Low Reverse Recovery Time
- Low Reverse Capacitance
- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection

Mechanical Data

- Package: SOD-323
- Moisture Sensitivity: Level 1, per J-STD-020
- Halogen Free. "Green" Device (Note1)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish & RoHS Compliant
- Weight: 0.004 g (approximate)

Body Marking and Pin Layout

Body Marking	Internal structure
 XX: Device Marking Code¹ Bar: Cathode Pin indicator Dot(optional): Manufacturing Site Marking ¹ Refer to the ordering information for the specific device code.	

Ordering Information

Ordering Product Name	Device Marking Code	Reel Size	Packing Type	Qty/Reel
SD101AWS-TP	S1	7"	Tape & Reel	3,000
SD101AWS-13P	S1	13"	Tape & Reel	10,000
SD101BWS-TP	S2	7"	Tape & Reel	3,000
SD101BWS-13P	S2	13"	Tape & Reel	10,000
SD101CWS-TP	S3	7"	Tape & Reel	3,000
SD101CWS-13P	S3	13"	Tape & Reel	10,000

For packaging details, visit our website at <https://www.mccsemi.com/Package/List>

Maximum Ratings (T_A=25°C unless otherwise specified)

Parameter	Symbol	Rating			Unit
		SD101AWS	SD101BWS	SD101CWS	
Peak Repetitive Reverse Voltage	V _{RRM}	60	50	40	V
RMS Reverse Voltage	V _{R(RMS)}	42	35	28	V
Reverse Voltage	V _R	60	50	40	V
Average Forward Current	I _{F(AV)}	15	15	15	mA
Non-Repetitive Peak Surge Current	t _p = 8.3ms Half Sine Wave, T _J = 25°C I _{FSM}	2	2	2	A
Power Dissipation (Note 2)	P _D	400	400	400	mW
Operating Junction Temperature Range	T _J	-55 to +125	-55 to +125	-55 to +125	°C
Storage Temperature Range	T _{STG}	-55 to +150	-55 to +150	-55 to +150	°C

Notes:
 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
 2. Device mounted on an FR4 Printed-Circuit Board (PCB) with the recommended pad layout.

D101AWS THRU SD101CWS

Thermal characteristics (T_A=25°C unless otherwise specified)

Parameter	Symbol	Rating	Unit
Thermal Resistance from Junction to Ambient (Note 2)	R _{θJA}	250	°C/W

Electrical Characteristics (T_A=25°C unless otherwise specified)

Parameter	Product name	Test Conditions	Symbol	Min	Typ	Max	Unit
Reverse Breakdown Voltage	SD101AWS	I _R =10μA (pulse test)	V _{BR}	60			V
	SD101BWS			50			V
	SD101CWS			40			V
Forward Voltage	SD101AWS	I _F = 1mA	V _F			0.41	V
		I _F = 15mA				1	
	SD101BWS	I _F = 1mA				0.4	
		I _F = 15mA				0.95	
	SD101CWS	I _F = 1mA				0.39	
		I _F = 15mA				0.9	
Reverse Current	SD101AWS	V _R = 50 V	I _R			0.2	μA
	SD101BWS	V _R = 40 V				0.2	
	SD101CWS	V _R = 30 V				0.2	
Junction Capacitance		V _R =0 V, f=1.0MHz	C _J			5	pF
Reverse Recovery Time		I _F =5mA, I _R =5mA, I _{tr} =0.1 x I _R , R _L =100Ω	t _{rr}			1	ns

Curve Characteristics

Fig.1 - Typical Instantaneous Forward Characteristics (per diode)

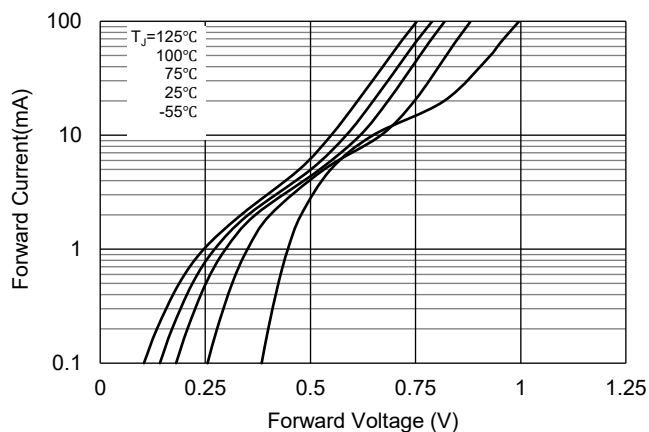


Fig.2 - Typical Reverse Leakage Characteristics (per diode)

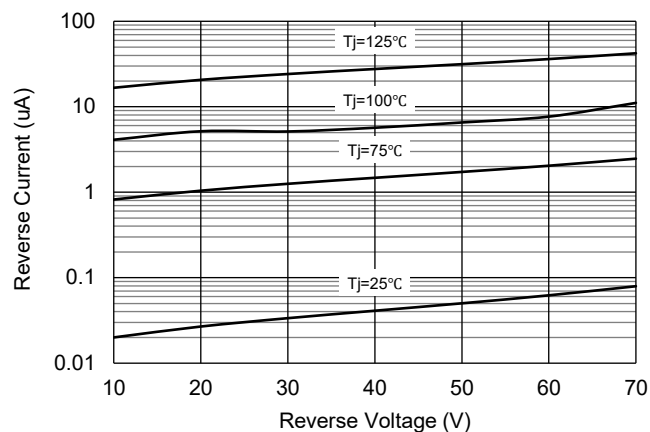


Fig.3 - Typical Capacitance Characteristics (per diode)

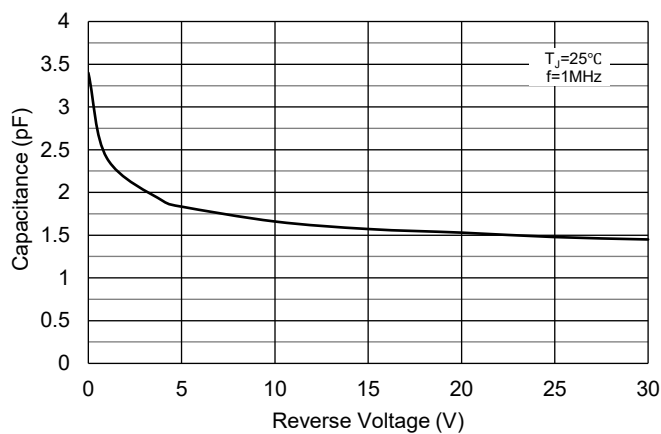
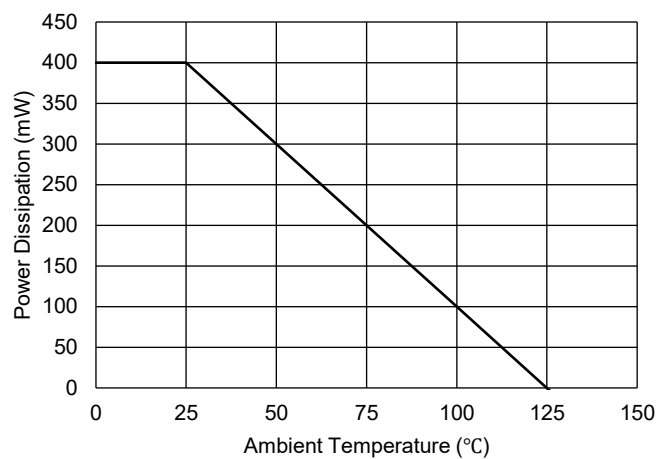
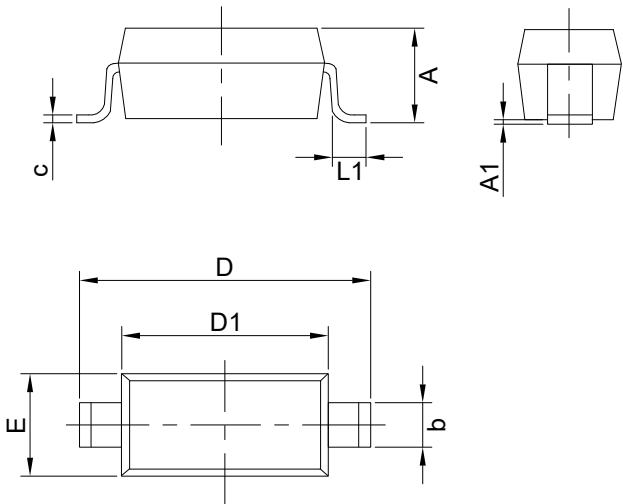


Fig.4 - Power Derating Curve



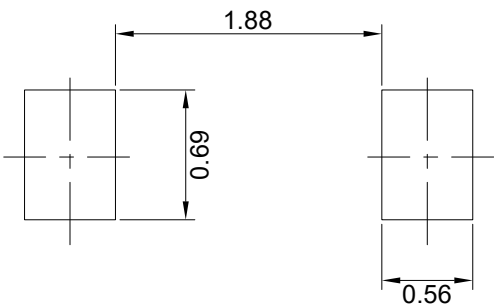
Package Outline



DIM	INCH		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.031	0.045	0.80	1.15*	Note 1
A1	0.000	0.006	0.00	0.15	
b	0.010	0.016	0.25	0.40	
c	0.003	0.010	0.08	0.25	
D	0.090	0.107	2.30	2.70	
D1	0.063	0.071	1.60	1.80	
E	0.045	0.055	1.15	1.40	
L1	0.004	0.018	0.10	0.45	

- Notes:
1. Dimension A for products from manufacturing site VN is controlled at max 1.10 mm.

Suggested Pad Layout (Unit:mm)



- Notes:
1. The suggested land pattern dimensions have been provided for reference only.
 2. For further information, please refer to document IPC-7351A.

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