SD101AWS THRU SD101CWS

Reverse Voltage 40-60 Volts Forward Current - 0.015 Ampere

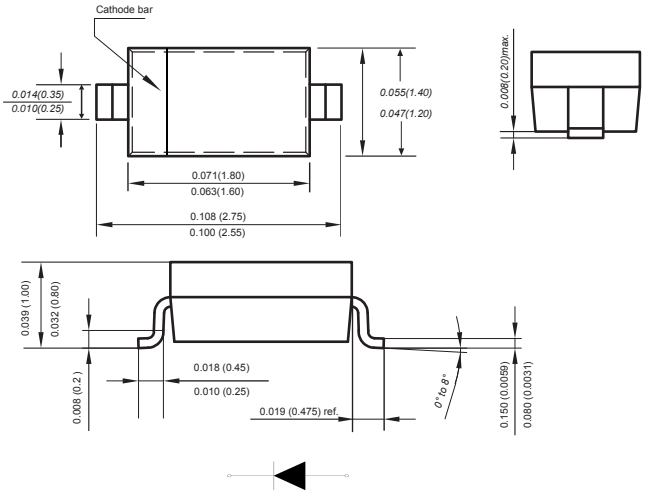
SCHOTTKY DIODES

Features

SOD-323

RoHS COMPLIANT

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



Dimensions in inches and (millimeters)

Mechanical Data

Case : JEDEC SOD-323 molded plastic body
Terminals : Plated leads solderable per MIL-STD-750, Method 2026 Polarity : Polarity symbols marked on case
Weight : 0.0007 ounce, 0.02 grams
Marking: SD101AWS:S1, SD101BWS:S2, SD101CWS:S3

Absolute Maximum Ratings at 25 °C

PARAMETER	SYMBOLS	SD101AWS	SD101BWS	SD101CWS	UNITS
Peak repetitive peak reverse voltage Working peak reverse voltage DC Blocking voltage	V_{RRM} V_{RMS} V_{DC}	60	50	40	VOLTS
RMS Reverse voltage	$V_{R(RMS)}$	42	35	28	V
Forward continuous current	I_{FM}	15			mA
Repetitive peak forward current @t<1.0s @t=10us	I_{FRM}	50 2.0			mA A
Power dissipation	Pd	200			mW
Thermal resistance junction to ambient	$R_{\Theta JA}$	300			°C/W
Storage temperature	T_{STG}	-65 to +125			°C

Characteristics at Ta= 25 °C

PARAMETER		SYMBOLS	Min.	Typ.	Max.	Unit	Conditions
Reverse break down voltage Reverse	SD101AWS	$V_{(BR)R}$	60			V	I_R=10uA
	SD101BWS		50				I_R=10uA
	SD101CWS		40				I_R=10uA
Fowrard voltage	SD101AWS	V_F			0.41	V	I_F=1.0mA
	SD101BWS				0.40		I_F=1.0mA
	SD101CWS				0.39		I_F=1.0mA
	SD101AWS				1.00		I_F=15mA
	SD101BWS				0.95		I_F=15mA
	SD101CWS				0.90		I_F=15mA
Reverse current	SD101AWS SD101BWS SD101CWS	I_{RM}			0.2	uA	V_R=50V V_R=40V V_R=30V
Capacitance between terminals	SD101AWS	C_T			2.0	pF	V_R=0V,f=1.0MHz
	SD101BWS				2.1		
	SD101CWS				2.2		
Reverse recovery time		t_{rr}			1.0	ns	I_F=I_R=5mA Irr=0.1XI_R,R_L=100Ω

Typical Characterisitics

FIG. 1- POWER DERATING CURVE

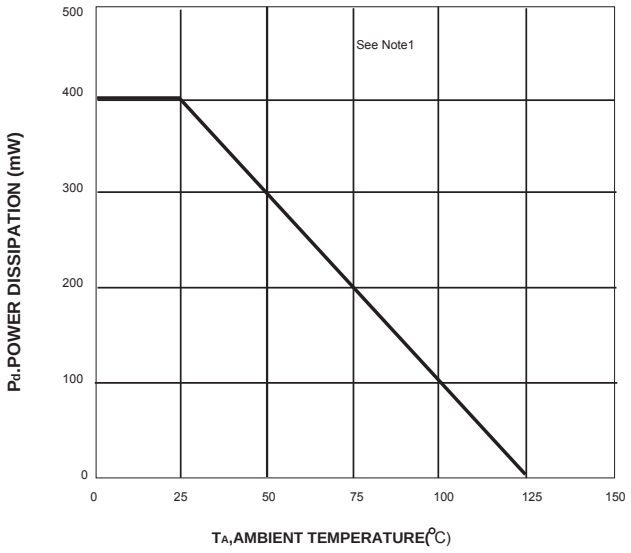


FIG. 2-TYPICAL FORWARD CHARACTERISTIC

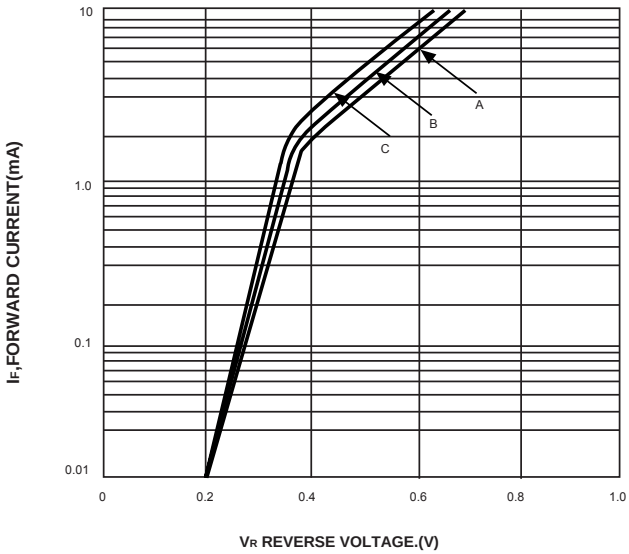


FIG.3- TYPICAL TOTAL CAPACITANCE VS REVERSE VOLTAGE

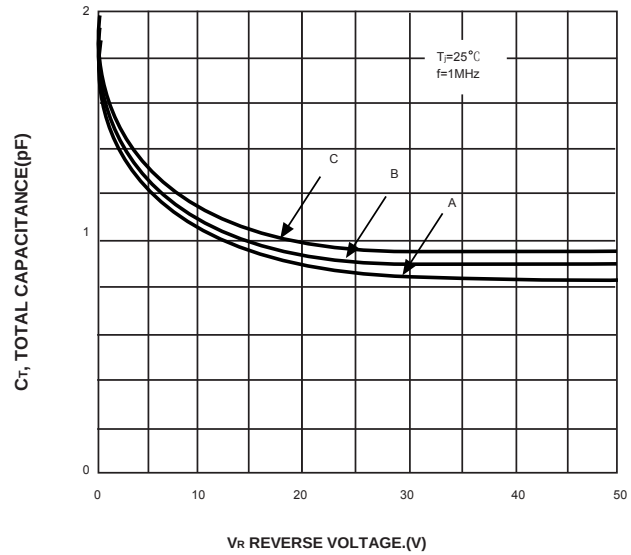
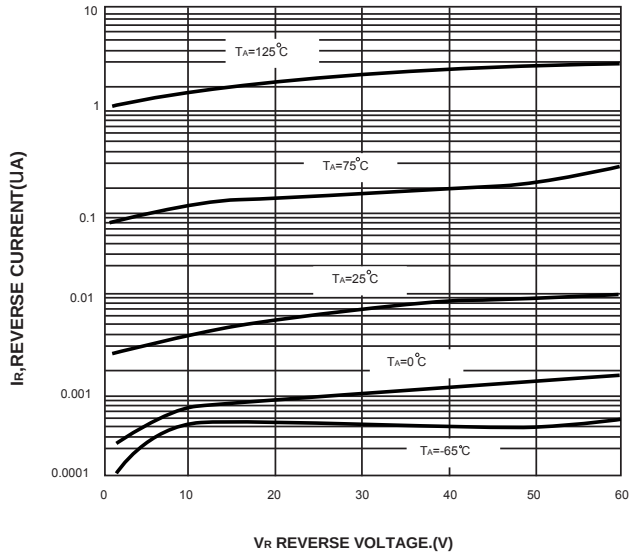
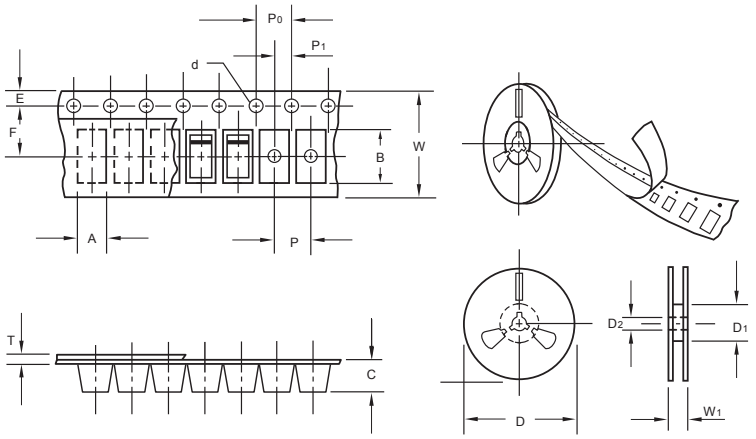


FIG. 4- TYPICAL REVERSE CHARACTERISTICS



The curve above is for reference only.

Packing information



unit:mm

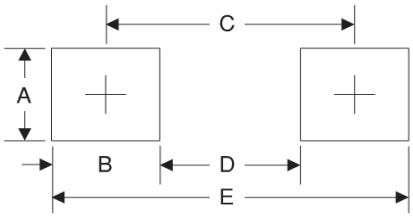
Item	Symbol	Tolerance	SOD-323
Carrier width	A	0.1	2.1
Carrier length	B	0.1	4.0
Carrier depth	C	0.1	1.60
Sprocket hole	d	0.05	1.55
7" Reel outside diameter	D	2.0	178.00
7" Reel inner diameter	D_1	min	50.0
Feed hole diameter	D_2	0.5	13.00
Sprocket hole position	E	0.1	1.75
Punch hole position	F	0.1	3.50
Punch hole pitch	P	0.1	4.00
Sprocket hole pitch	P_0	0.1	4.00
Embossment center	P_1	0.1	2.00
Overall tape thickness	T	0.1	0.25
Tape width	W	0.3	8.15
Reel width	W_1	1.0	10.5

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 (m/m)	BOX (pcs)	INNER BOX (m/m)	REEL DIA, (m/m)	CARTON SIZE (m/m)	CARTON (pcs)	APPROX. GROSS WEIGHT (kg)
SOD-323	7"	3,000	4.0	45,000	210*208*203	178	430*430*235	180,000	

Suggested Pad Layout



Symbol	Unit (mm)	Unit (inch)
A	0.7	0.028
B	0.7	0.028
C	2.15	0.085
D	1.8	0.071
E	2.85	0.112