

SCHOTTKY DIODES

Features

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

SOD-323



Mechanical Data

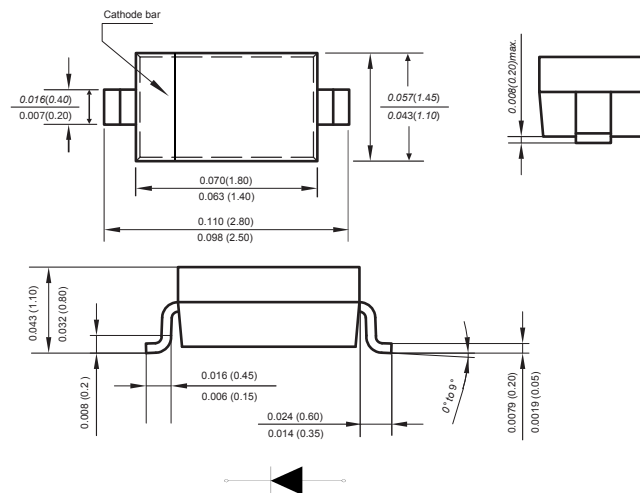
Case : JEDEC SOD-323 molded plastic body

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



Dimensions in inches and (millimeters)

Absolute Maximum Ratings at 25 °C

PARAMETER	SYMBOLS	SD101AWS	SD101BWS	SD101CWS	UNITS
Peak repetitive peak reverse voltage	V_{RRM}	60	50	40	VOLTS
Working peak reverse voltage	V_{RMS}				
DC Blocking voltage	V_{DC}				
RMS Reverse voltage	$V_{R(RMS)}$	42	35	28	V
Forward continuous current	I_{FM}	15			mA
Repetitive peak forward current @t<1.0s	I_{FRM}	50			mA
@t=10us		2.0			A
Power dissipation	P_d	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	$V_{(BR)R}$	60 50 40			V	$I_R=10\mu A$ $I_R=10\mu A$ $I_R=10\mu A$
Forward voltage	V_F			0.41 0.40 0.39 1.00 0.95 0.90	V	$I_F=1.0mA$ $I_F=1.0mA$ $I_F=1.0mA$ $I_F=15mA$ $I_F=15mA$ $I_F=15mA$
Reverse current	I_{RM}			0.2	uA	$V_R=50V$ $V_R=40V$ $V_R=30V$
Capacitance between terminals	C_T			2.0 2.1 2.2	pF	$V_R=0V, f=1.0MHz$
Reverse recovery time	t_{rr}			1.0	ns	$I_F=I_R=5mA$ $I_{rr}=0.1X I_R, R_L=100\Omega$

Typical Characteristics

FIG. 1- POWER DERATING CURVE

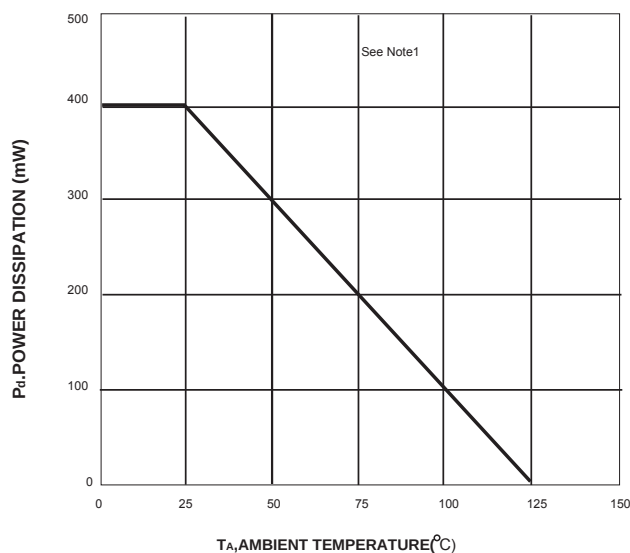


FIG. 2-TYPICAL FORWARD CHARACTERISTIC

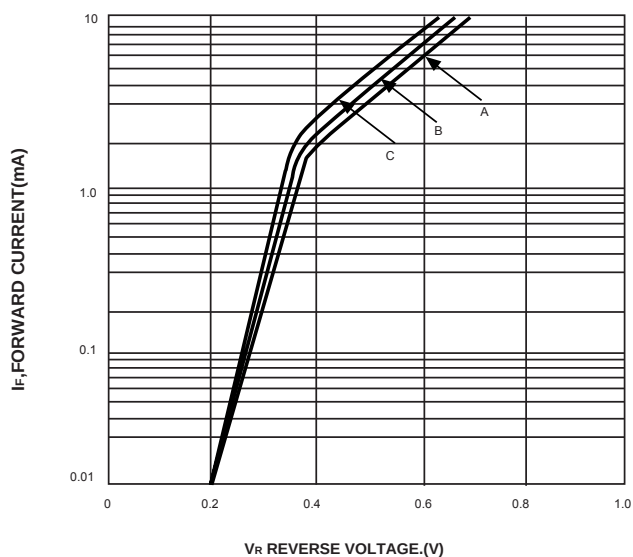


FIG.3- TYPICAL TOTAL CAPACITANCE VS REVERSE VOLTAGE

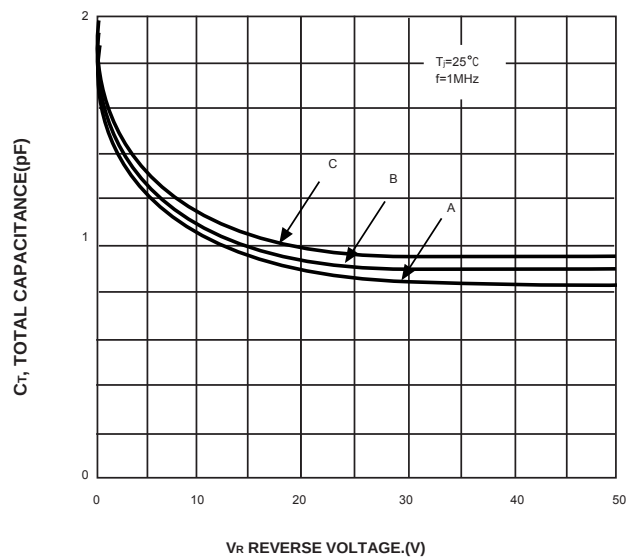
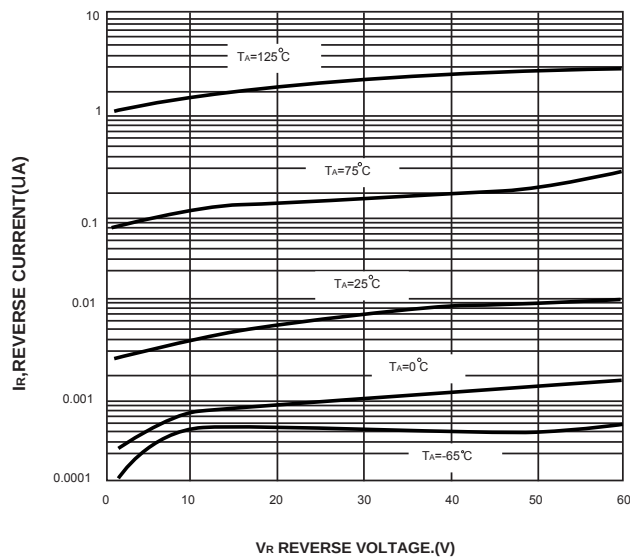
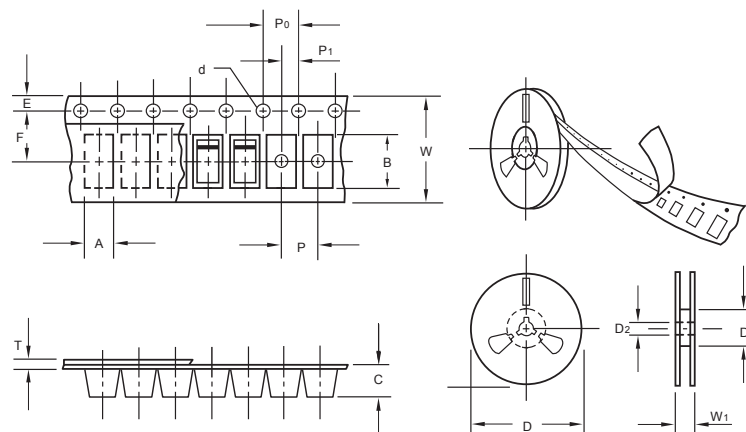


FIG. 4- TYPICAL REVERSE CHARACTERISTICS



The curve above is for reference only.

Packing information



unit:mm

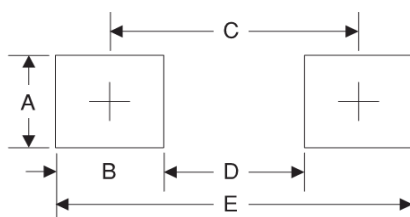
Item	Symbol	Tolerance	SOD-323
Carrier width	A	0.1	2.1
Carrier length	B	0.1	4.0
Carrier depth	C	0.1	1.60
Sprocket hole	d	0.05	1.55
7" Reel outside diameter	D	2.0	178.00
7" Reel inner diameter	D ₁	min	50.0
Feed hole diameter	D ₂	0.5	13.00
Sprocket hole position	E	0.1	1.75
Punch hole position	F	0.1	3.50
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 accordance with EIA standard 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