

SCHOTTKY DIODES

Features

- ◆ Low forward voltage drop
- ◆ Fast switching time
- ◆ Surface mount package ideally suited for automatic insertion
- ◆ Lead, Halogen and Antimony Free, RoHS Compliant

"Green" Device

Mechanical Data

Case : JEDEC SOD-323 molded plastic body

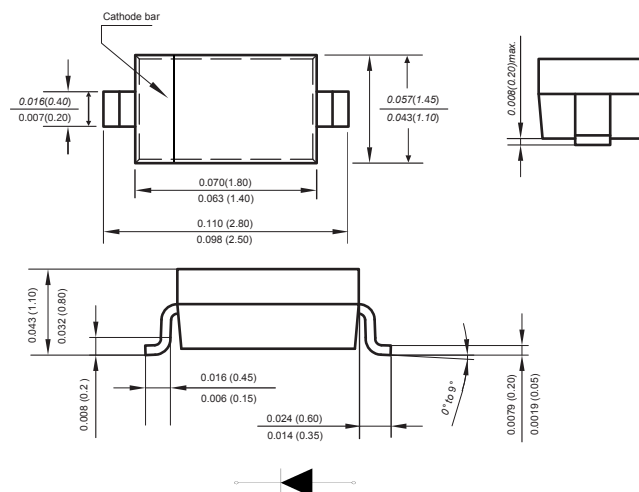
Terminals : Plated leads solderable per MIL-STD-750, Method 2026

Polarity : Polarity symbols marked on case

Weight : 0.0007 ounce, 0.02 grams

Marking: L9

SOD-323



Dimensions in inches and (millimeters)

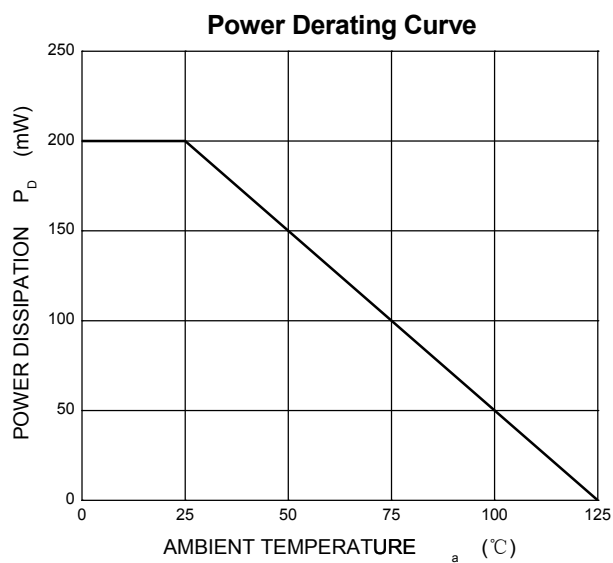
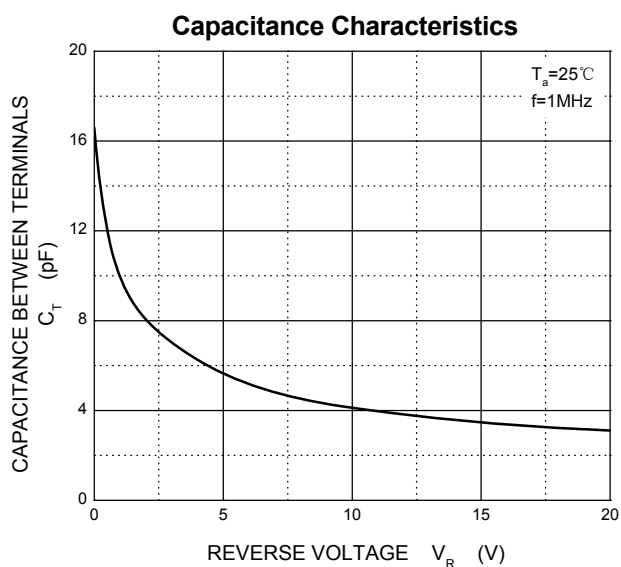
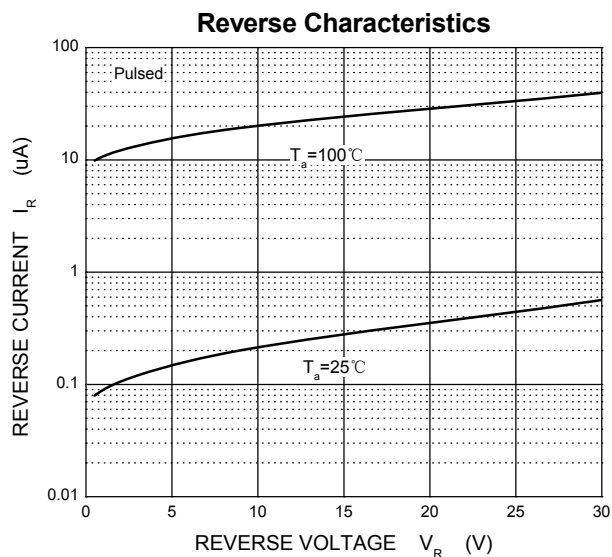
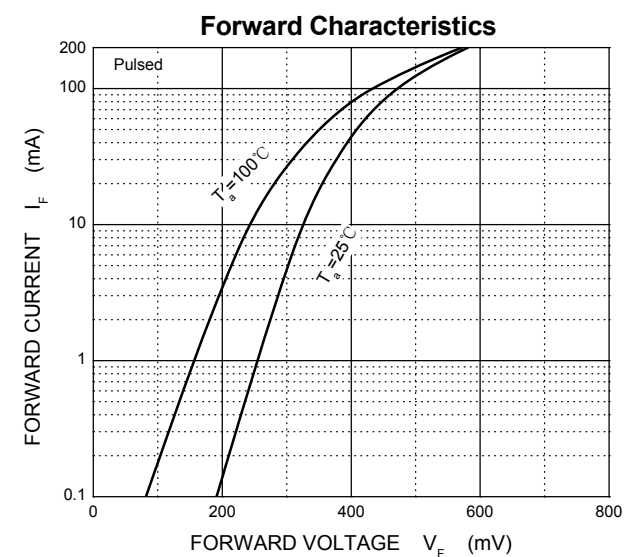
Absolute Maximum Ratings at 25 °C

PARAMETER	SYMBOLS	BAT54WS	UNITS
DC Blocking voltage	V_R	21	V
Average rectified output current	I_O	100	mA
Forward continuous current	I_{FM}	200	mA
Repetitive peak forward current	I_{FRM}	300	mA
Forward surge current	I_{FSM}	0.6	A
Power dissipation	P_d	200	mW
Thermal resistance, junction to ambient air	$R_{\theta JA}$	500	°C/W
Junction temperature	T_J	-55 to +125	°C
Storage temperature	T_{STG}	-55 to +150	°C
Non-Repetitive peak reverse voltage	V_{RM}	30	V

Characteristics at $T_a = 25\text{ °C}$

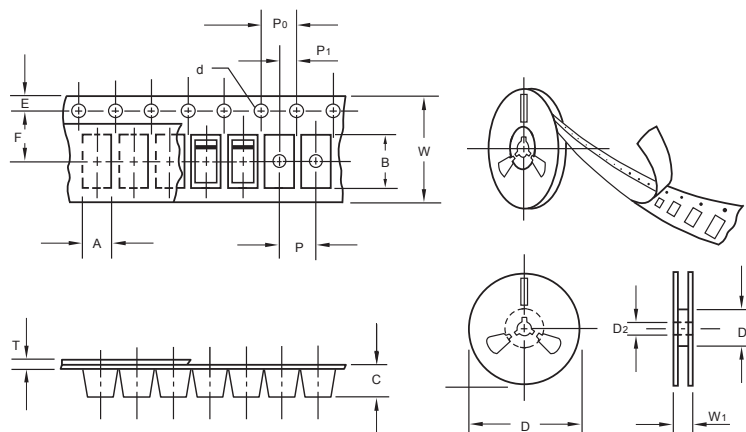
PARAMETER	SYMBOLS	Min.	Typ.	Max.	Unit	Conditions
Reverse breakdown voltage	$V_{(BR)R}$	30			V	$I_R = 100\mu A$
Forward voltage	V_{F1}			240	mV	$I_F = 1.0\text{mA}$
	V_{F2}			1000	mV	$I_F = 100\text{mA}$
Reverse current	I_R			2.0	μA	$V_R = 25\text{V}$
Capacitance between terminals	C_T			10	pF	$V_R = 1\text{V}, f = 1.0\text{MHz}$
Reverse recovery time	t_{rr}			5.0	ns	$I_F = 10\text{mA}, I_R = 10\text{mA to } 1\text{mA}$ $R_L = 100\Omega$

Typical Characteristics



The curve above is for reference only.

Packing information



unit:mm

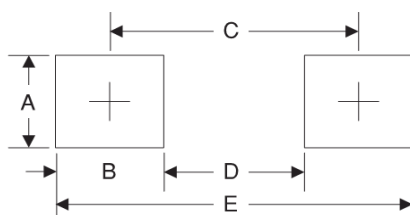
Item	Symbol	Tolerance	SOD-323
Carrier width	A	0.1	2.1
Carrier length	B	0.1	4.0
Carrier depth	C	0.1	1.60
Sprocket hole	d	0.05	1.55
7" Reel outside diameter	D	2.0	178.00
7" Reel inner diameter	D ₁	min	50.0
Feed hole diameter	D ₂	0.5	13.00
Sprocket hole position	E	0.1	1.75
Punch hole position	F	0.1	3.50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