

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

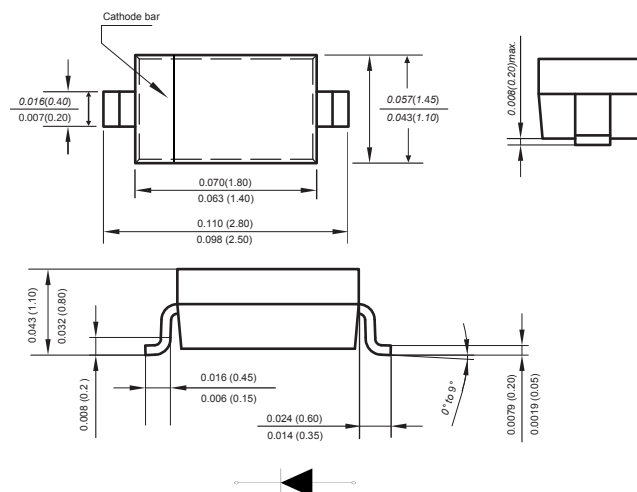
Weight : 0.0007 ounce, 0.02 grams

Marking: L9

Absolute Maximum Ratings at 25 °C

PARAMETER	SYMBOLS	BAT54WS	UNITS
Non-Repetitive peak reverse voltage	V_{RM}	30	V
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

SOD-323

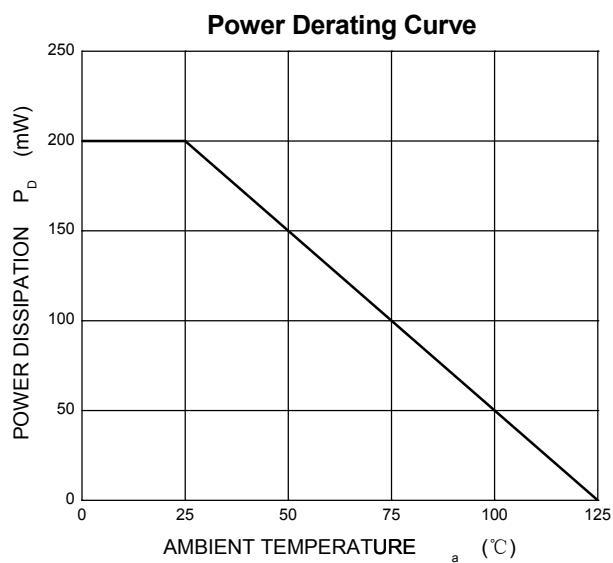
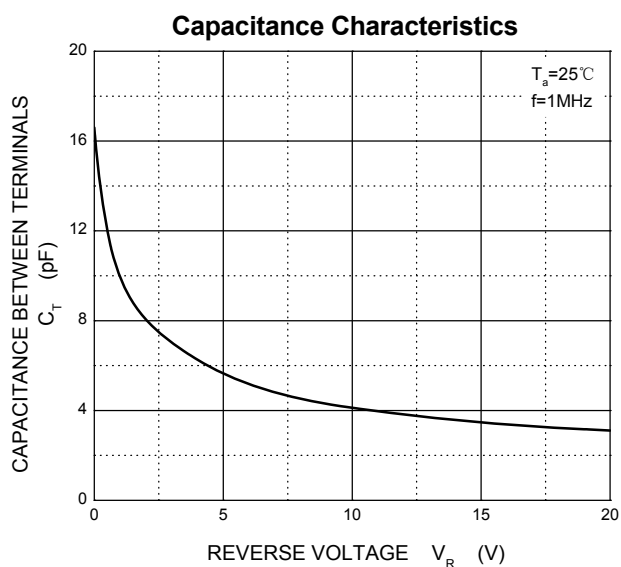
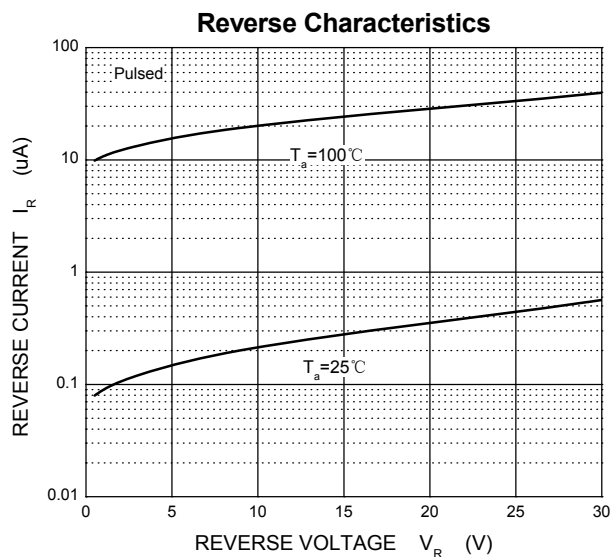
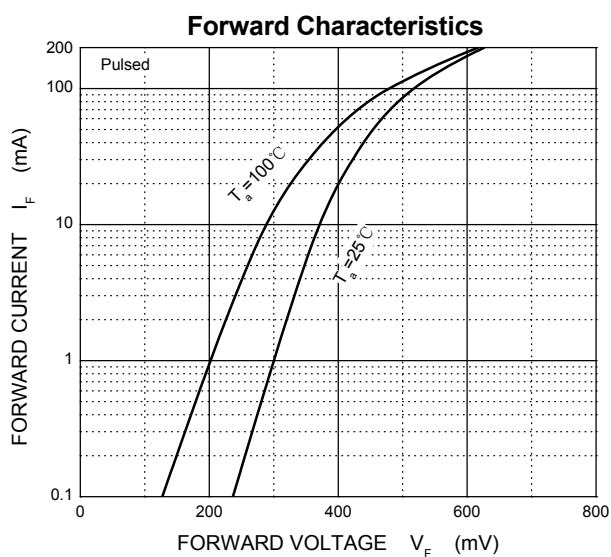


Dimensions in inches and (millimeters)

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

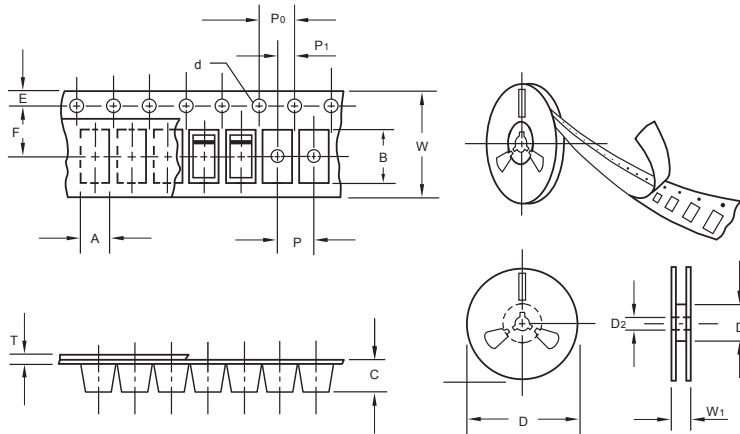
PARAMETER	SYMBOLS	Min.	Typ.	Max.	Unit	Conditions
Reverse breakdown voltage	$V_{(BR)R}$	30			V	$I_R = 100\mu A$
Forward voltage	V_{F1}			320	mV	$I_F = 1.0\text{mA}$
	V_{F2}			1000	mV	$I_F = 100\text{mA}$
Reverse current	I_R			2.0	μA	$V_R = 25\text{V}$
Capacitance between terminals	C_T			10	pF	$V_R = 1\text{V}, f = 1.0\text{MHz}$
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

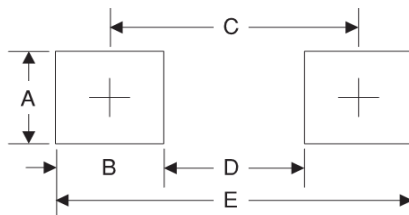
Item	Symbol	Tolerance	SOD-323
Carrier width	A	0.1	2.1
Carrier length	B	0.1	4.0
Carrier depth	C	0.1	1.60
Sprocket hole	d	0.05	1.55
7" Reel outside diameter	D	2.0	178.00
7" Reel inner diameter	D ₁	min	50.0
Feed hole diameter	D ₂	0.5	13.00
Sprocket hole position	E	0.1	1.75
Punch hole position	F	0.1	3.50
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	190*190*190	178	400*400*220	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

Important Notice and Disclaimer

Microdiode Electronics (Shenzhen) reserves the right to make changes to this document and its products and specifications at any time without notice. Customers should obtain and confirm the latest product information and specifications before final design, purchase or use.

Microdiode Electronics (Shenzhen) makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does Microdiode Electronics (Shenzhen) assume any liability for application assistance or customer product design. Microdiode Electronics (Shenzhen) does not warrant or accept any liability with products which are purchased or used for any unintended or unauthorized application.

No license is granted by implication or otherwise under any intellectual property rights of Microdiode Electronics (Shenzhen).

Microdiode Electronics (Shenzhen) products are not authorized for use as critical components in life support devices or systems without express written approval of Microdiode Electronics (Shenzhen).