

SOD-323 Plastic-Encapsulate Diode

BAS316 SCHOTTKY BARRIER DIODE

FEATURES

- For surface mounted applications
- Fast reverse recovery time
- Ideal for automated placement

Marking



Mechanical Data

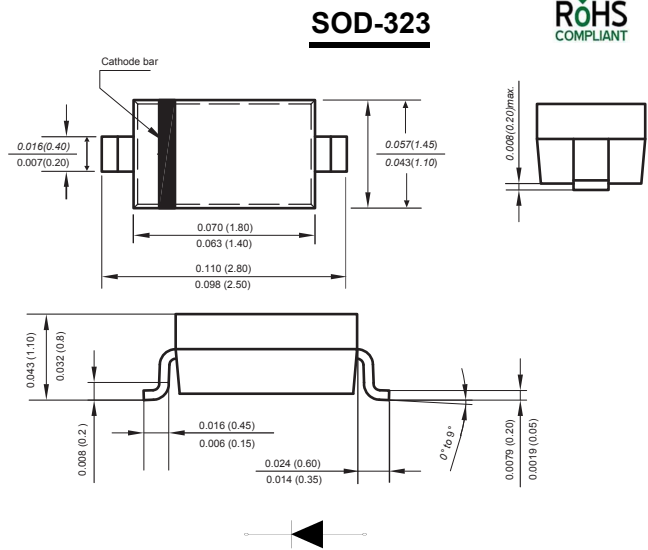
Case : SOD-323

Terminals : Solderable per MIL-STD-750, Method 2026

Polarity : Polarity symbol marking on body

Mounting Position : Any

Weight : 0.00019 ounce, 0.00548 grams



Dimensions in inches and (millimeters)



Maximum Ratings and Electrical Characteristics, Single Diode @Ta=25°C

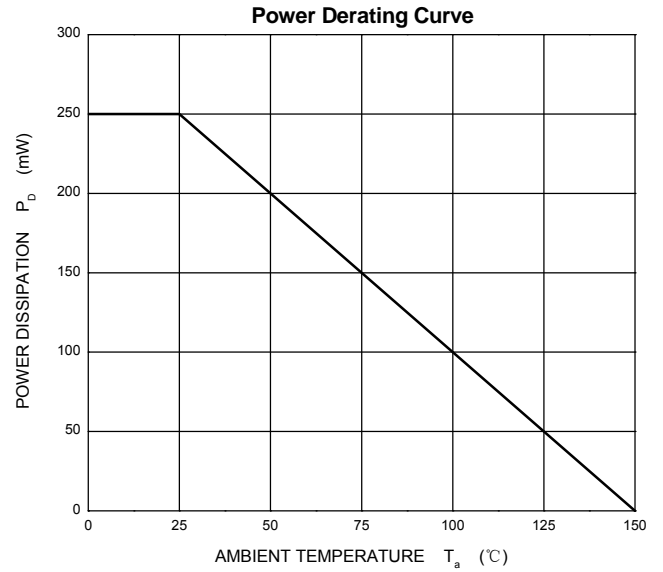
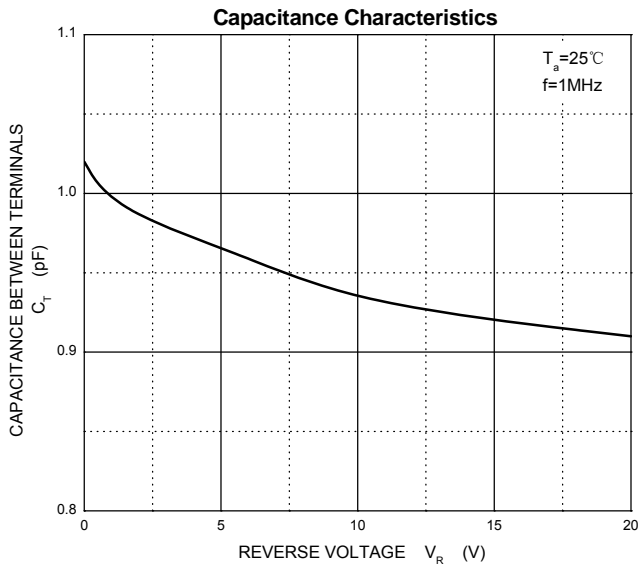
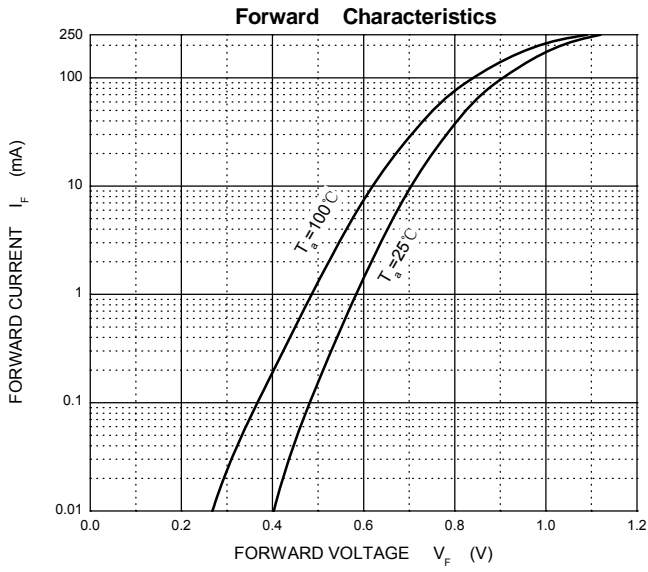
Parameter	Symbo	Limit	Unit
Peak Repetitive Peak Reverse Voltage	V_{RRM}	85	V
Peak Repetitive Peak Reverse Voltage	V_{RMS}	75	V
Average Rectified Output Current Ta=25°C	I_F	250	mA
Non-repetitive Peak Forward Surge Current at 1s at 1ms at 1us	I_{FSM}	0.5 1 4	A
Repetitive peak forward current	I_{FRM}	500	mA
Power Dissipation	P_{TOT}	400	mW
Operating and Storage Temperature Range	T_j, T_{STG}	-55~+150	°C

ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	BAS316	Unit
Reverse voltage leakage current	I_R	$V_R=25V, T_j=25°C$	0.03	μA
		$V_R=75V, T_j=25°C$	1.0	
		$V_R=25V, T_j=150°C$	30	
		$V_R=75V, T_j=150°C$	50	
Forward voltage	V_F	$I_F=1mA$	0.715	V
		$I_F=10mA$	0.855	
		$I_F=50mA$	1.00	
		$I_F=150mA$	1.25	
Typical Junction Capacitance	C_J	$V_R=0, f=1MHz$	2	pF
Revers recovery time(1)	t_{rr}	$I_F=I_R=10mA, I_{rr}=0.1 \times I_R, R_L=100\Omega$	4	ns

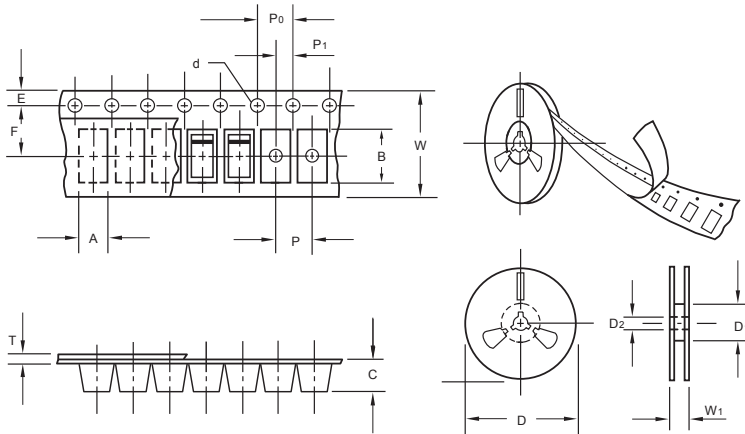
(1) Measured with $I_F=I_R=10mA, I_{rr}=0.1 \times I_R, R_L=100\Omega$

Typical Characteristics



The curve above is for reference only.

Packing information



unit:mm

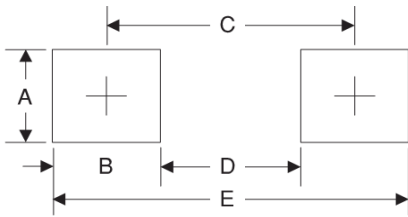
Item	Symbol	Tolerance	SOD-323
Carrier width	A	0.1	1.46
Carrier length	B	0.1	2.90
Carrier depth	C	0.1	1.25
Sprocket hole	d	0.05	1.50
13" Reel outside diameter	D	2.0	330.00
13" Reel inner diameter	D ₁	min	50.00
7" Reel outside diameter	D	2.0	178.00
7" Reel inner diameter	D ₁	min	54.40
Feed hole diameter	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	0.06
Tape width	W	0.3	8.00
Reel width	W ₁	1.0	12.30

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	9.0

Suggested Pad Layout



Symbol	Unit (mm)	Unit (inch)
A	1.2	0.047
B	1.2	0.047
C	2.6	0.102
D	1.4	0.055
E	3.8	0.149