

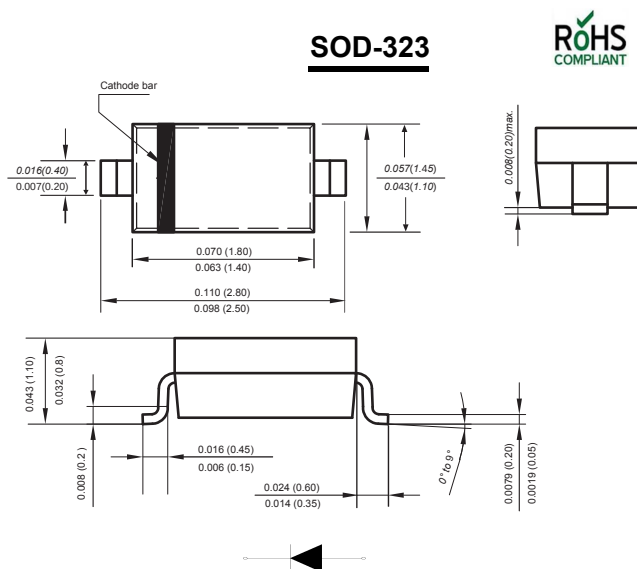
SOD-323 Plastic-Encapsulate Diode

BAS40WS SCHOTTKEY BARRIER DIODE

FEATURES

- Low power loss, high efficiency
- High current capability
- High surge capability
- Fast Switching Speed

Marking



Dimensions in inches and (millimeters)

Mechanical Data

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

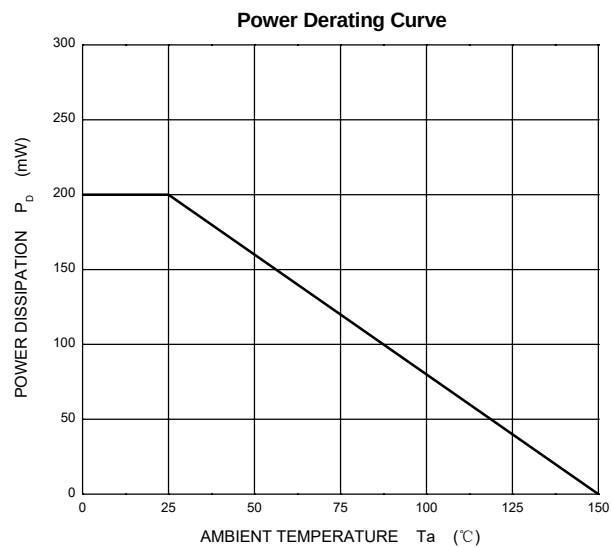
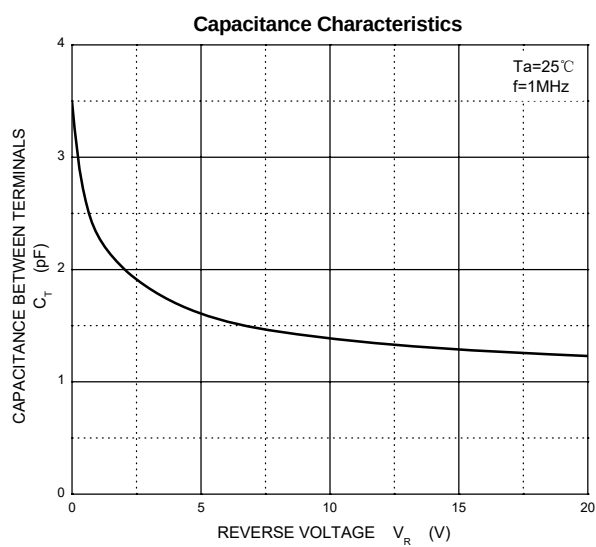
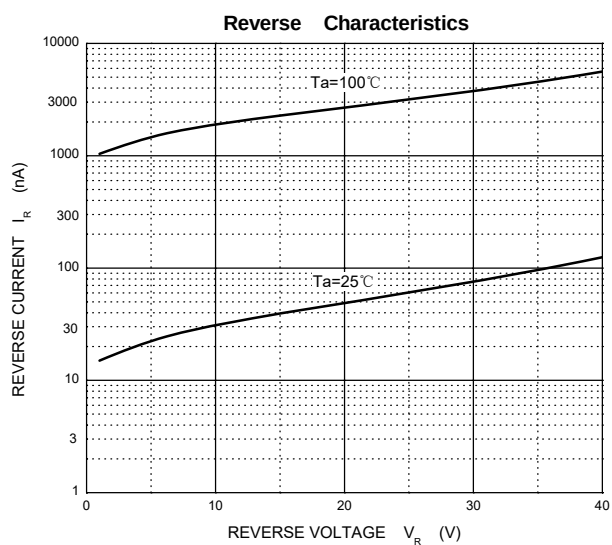
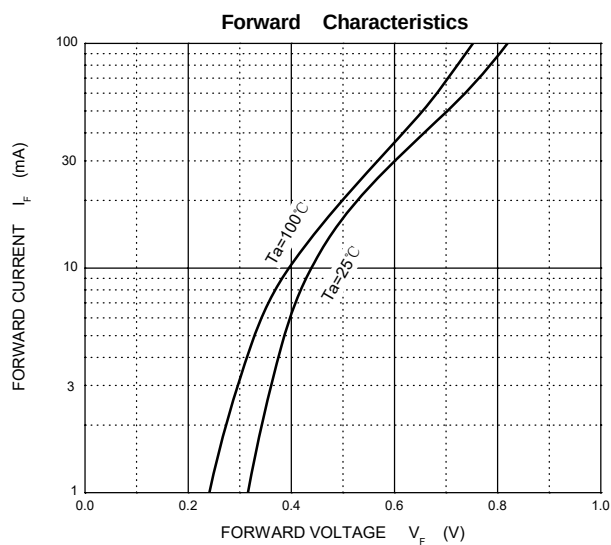
Weight : 0.00019 ounce, 0.00548 grams

Maximum Ratings and Electrical Characteristics, Ratings at 25 °C ambient temperature unless otherwise specified

Parameter	Symbols	BAS40WS	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	40	V
RMS Reverse Voltage	$V_{R(RMS)}$	28	V
Forward Continuous Current	I_F	0.2	A
Non-Repetitive Peak Forward Surge Current @t = 8.3ms	I_{FSM}	0.6	A
Power dissipation	P_D	200	mW
Reverse Breakdown Voltage $I_R = 10\mu A$	V_{BR}	40	V
Forward Voltage (NOTE 2) $I_F = 1.0mA$ $I_F = 10mA$ $I_F = 40mA$	V_F	0.38 0.50 1.0	V
Peak Reverse Current $V_{R1} = 30V, T_j = 25^\circ C$	I_R	0.2	μA
Typical Junction Capacitance $V_R = 0V, f = 1MHz$	C_T	5.0	pF
Reverse Recovery Time $I_F = I_R = 10mA,$ $I_{rr} = 0.1 \times I_R,$ $R_L = 100\Omega$	t_{rr}	5	ns
Thermal Resistance, Junction to Ambient Air (NOTE 1)	$R_{\theta JA}$	500	$^\circ C/W$
Junction Temperature	T_j	125	$^\circ C$
Storage Temperature	T_{stg}	-55 ~ +150	$^\circ C$

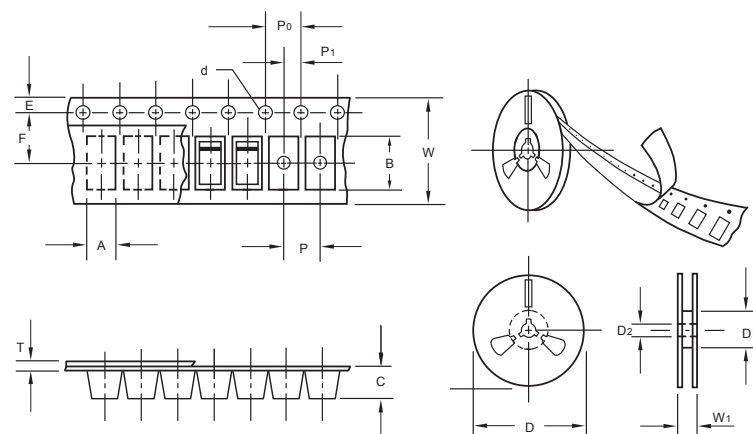
Notes: 1. Part mounted on FR-4 board with recommended pad layout.
2. Short duration pulse test used to minimize self-heating effect.

Typical Characteristics



The curve above is for reference only.

Packing information



unit:mm

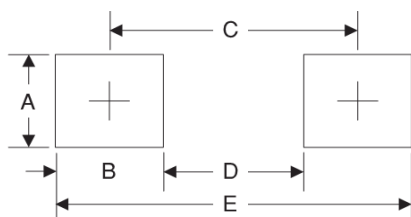
Item	Symbol	Tolerance	SOD-323
Carrier width	A	0.1	1.46
Carrier length	B	0.1	2.90
Carrier depth	C	0.1	1.25
Sprocket hole	d	0.05	1.50
13" Reel outside diameter	D	2.0	330.00
13" Reel inner diameter	D ₁	min	50.00
7" Reel outside diameter	D	2.0	178.00
7" Reel inner diameter	D ₁	min	54.40
Feed hole diameter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