



SCHOTTKY BARRIER RECTIFIERS

FEATURES

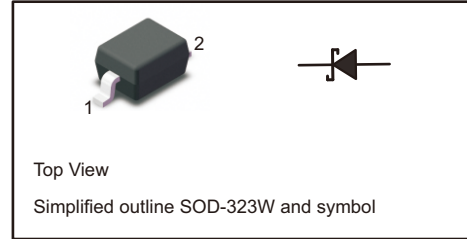
- High breakdown voltage
- Low turn-on voltage
- Guard ring construction for transient protection

MECHANICAL DATA

- Case: SOD-323W
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 5.48mg / 0.00019oz

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



MAXIMUM RATINGS (Ta=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Forward Current	I_F	150	mA
Non-Repetitive Peak Forward Surge Current at t=8.3ms	I_{FSM}	0.75	A
Power Dissipation	P_D	200	mW
Junction-to-Ambient Thermal Resistance ⁽¹⁾	$R_{\theta JA}$	500	°C/W
Operating Temperature Range	T_J	-55 to 125	°C
Storage Temperature Range	T_{stg}	-55 to 150	°C

ELECTRICAL CHARACTERISTICS (TA=25°C unless otherwise noted)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Breakdown Voltage ⁽²⁾	V_{BR}	$I_R=100\mu A$	100			V
Forward Voltage	V_{F1}	$I_F=0.1mA$			0.25	V
	V_{F2}	$I_F=10mA$			0.45	
	V_{F3}	$I_F=250mA$			1	
Reverse Leakage Current	I_R	$V_R=1.5V$			0.3	μA
		$V_R=10V$			0.5	
		$V_R=50V$			1	
		$V_R=75V$			2	
Junction Capacitance	C_j	$V_R=0V, f=1MHz$			20	pF
		$V_R=1V, f=1MHz$			12	

NOTES:

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



Typical Performance Characteristics

Fig. 1 Power Derating Curve

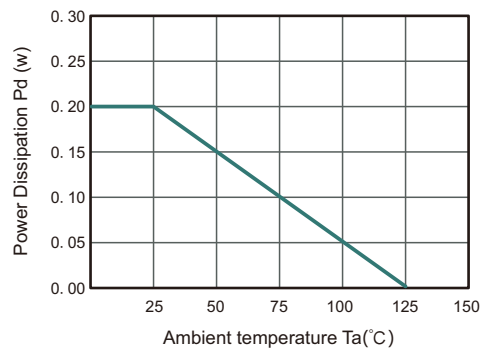


Fig. 2 Typical Reverse Characteristics

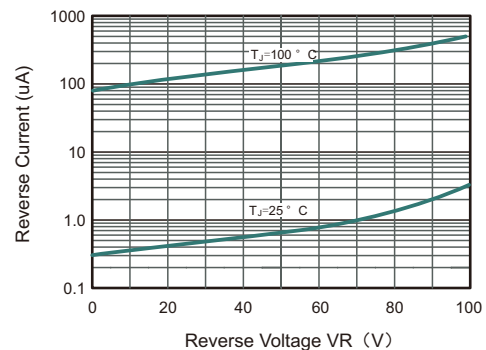


Fig. 3 Typical Forward Voltage

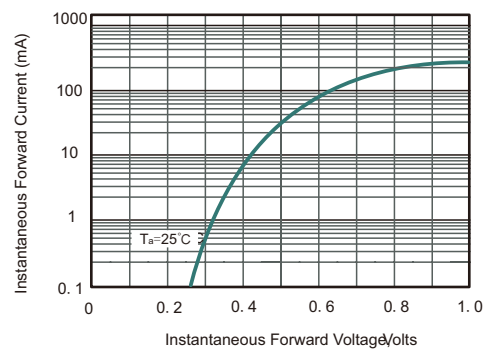


Fig. 4 Typical Junction Capacitance

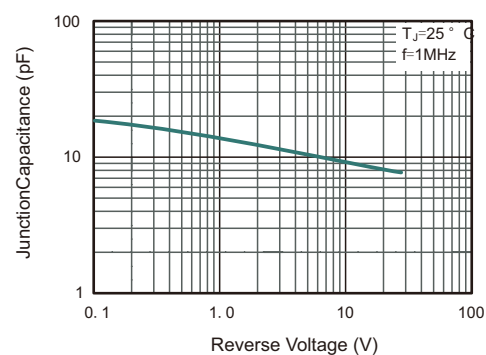
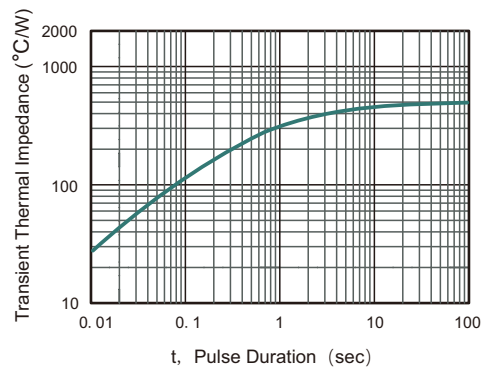


Fig. 5 Typical Transient Thermal Impedance

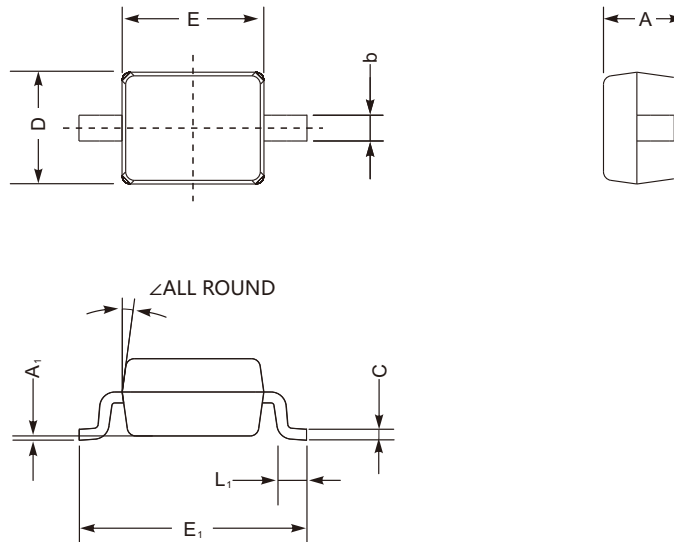




PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

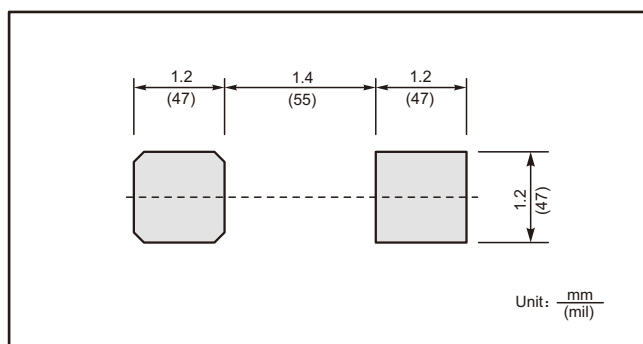
SOD-323W



SOD-323W mechanical data

UNIT		A	C	D	E	E ₁	b	L ₁	A ₁	∠
mm	max	1.1	0.15	1.4	1.8	2.75	0.4	0.45	0.2	9°
	min	0.8	0.08	1.2	1.4	2.55	0.25	0.2	—	
mil	max	43	5.9	55	70	108	16	16	8	
	min	32	3.1	47	55	100	9.8	7.9	—	

The recommended mounting pad size



Marking

Type number	Marking code
BAT46WB	S9



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