



## SCHOTTKY BARRIER RECTIFIERS

### FEATURES

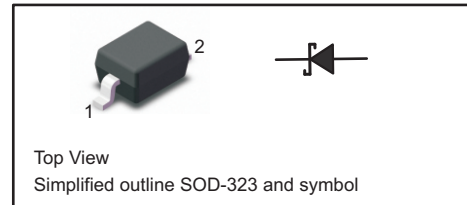
- Low power loss, high efficiency
- High current capability
- High surge capability
- Fast switching speed

### MECHANICAL DATA

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

### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



### Absolute Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz resistive or inductive load, for capacitive load, derate by 20 %

Parameter	Symbols	BAS70WS	Units
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	70	V
Maximum Average Forward Current at $T_a=25^{\circ}\text{C}$	$I_O$	0.2	A
Power Dissipation	$P_{TOT}$	225	mW
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	25	A
Peak Forward Surge Current, 1.0ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	50	A
$I^2t$ Rating for fusing ( $3\text{ms} \leq t \leq 8.3\text{ms}$ )	$I^2t$	2.6	$\text{A}^2\text{S}$
Maximum Instantaneous Forward Voltage	$V_F$	0.47 @ $I_F=1.0\text{mA}$ 0.75 @ $I_F=10\text{mA}$ 1.0 @ $I_F=15\text{mA}$	V
Reverse Breakdown Voltage @ $I_B=10\mu\text{A}$	$V_{(BR)}$	70 (min)	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	0.1 @ $V_R=50\text{V}$ 1.0 @ $V_R=70\text{V}$	$\mu\text{A}$
Typical Junction Capacitance(Note 1)	$C_j$	20	pF
Typical Thermal Resistance(Note 2)	$R_{\theta JA}$ $R_{\theta JC}$ $R_{\theta JL}$	150 50 75	$^{\circ}\text{C/W}$
Storage and Operating Junction Temperature Range	$T_j, T_{stg}$	-55 ~ +150	$^{\circ}\text{C}$

(1) Measured at 1 MHz and applied reverse voltage of 4 V D.C.

(2) P.C.B. mounted with 0.1" X 0.1" (2.54 X 2.54 mm) copper pad areas.



Fig.1 Forward Current Derating Curve

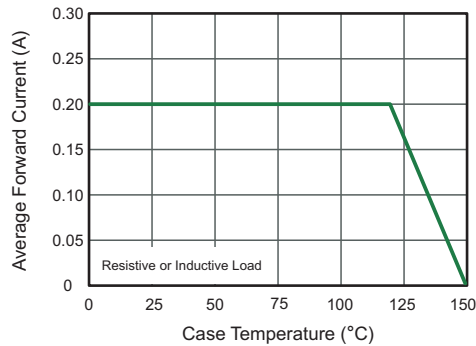


Fig.2 Typical Reverse Characteristics

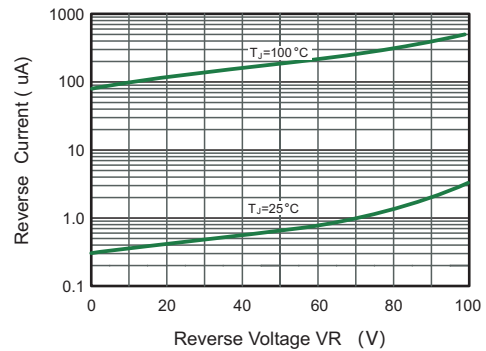


Fig.3 Typical Instantaneous Forward Characteristics

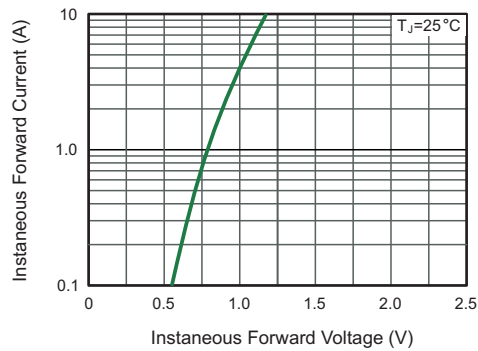


Fig.4 Typical Junction Capacitance

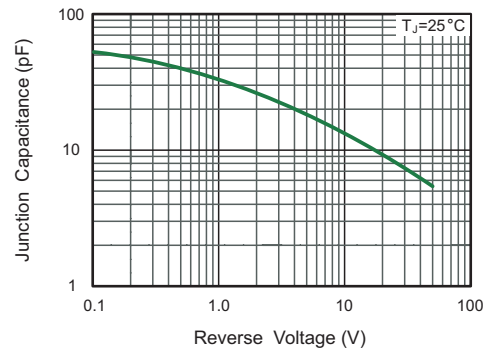


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

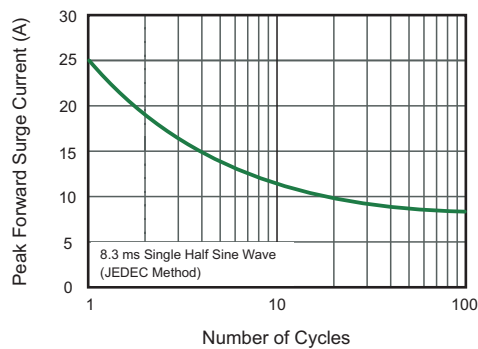
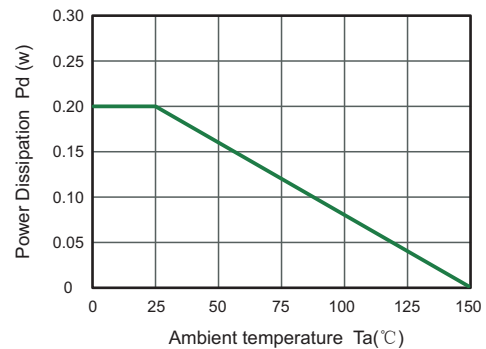


Fig.6 Power Derating Curve

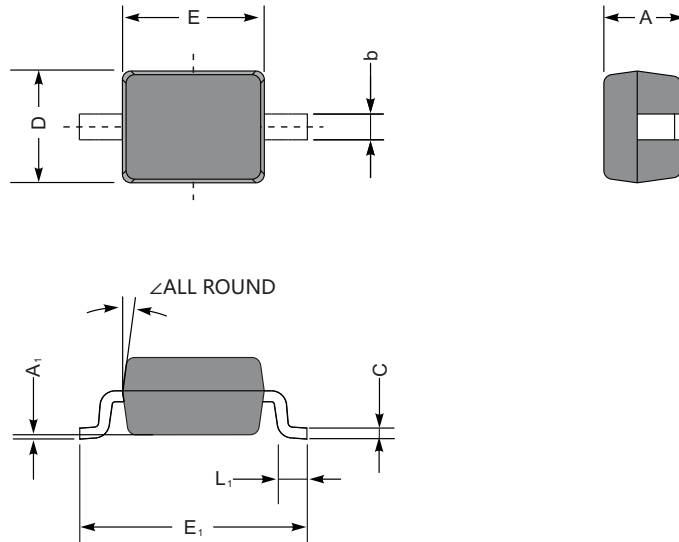




## PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

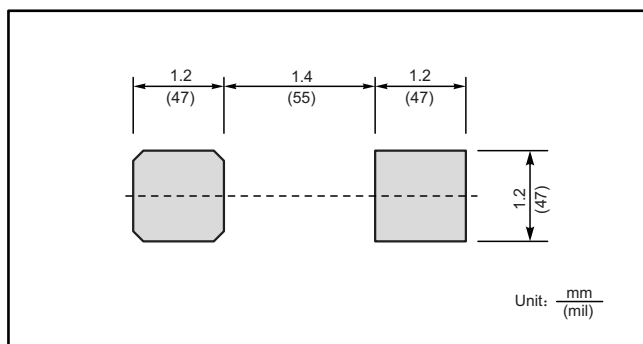
SOD-323



SOD-323 mechanical data

UNIT		A	C	D	E	E <sub>1</sub>	b	L <sub>1</sub>	A <sub>1</sub>	$\angle$
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	63	100	9.8	7.9	—	

## The recommended mounting pad size



## Marking

Type number	Marking code
BAS70WS	A70



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