B0520WS-AT THRU B0540WS-AT

SCHOTTKY BARRIER RECTIFIERS

FEATURES

- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- High Conductance
- Also Available in Lead Free Version

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

Top View
Marking Code: SD,SE,SF
Simplified outline SOD-323 and symbol

Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Parameter		Symbols	B0520WS-AT	B0530WS-AT	B0540WS-AT	Units
Peak Repetitive Reverse Voltage		V_{RRM}	20	30	40	V
RMS reverse voltage reverse voltage (DC)		V_{RMS}	14	21	28	V
Maximum DC Blocking Voltage		V_{DC}	20	30	40	V
Maximum Average Forward Current at Ta=25℃		I_O	0.5			A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)		I_{FSM}	22			A
Maximum Instantaneous Forward Voltage	IF=0.1A IF=0.5A IF=1A	V_F	0.33 0.39 –	0.36 0.45 –	– 0.51 0.62	V
Reverse current	VR=10V VR=15V VR=20V VR=30V VR=40V	I_R	75 – 250 – –	– 75 100 500 –	– – 10 – 20	uA
Thermal Resistance, Junction to Ambient Air		$R_{\theta JA}$	500			°C/W
Junction temperature		T_j	-55 ~ +125			V
Storage temperature		T_{stg}	-55 ~ +150			V

Dated:08/2019
Rev:1.0

Fig.1 Forward Current Derating Curve

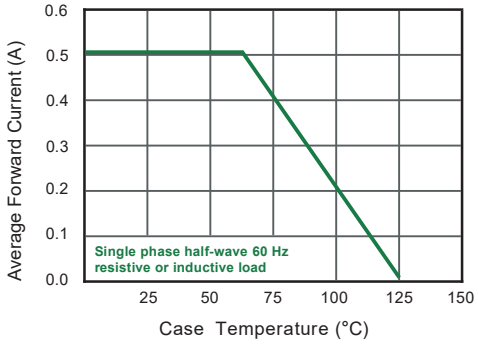


Fig.2 Typical Reverse Characteristics

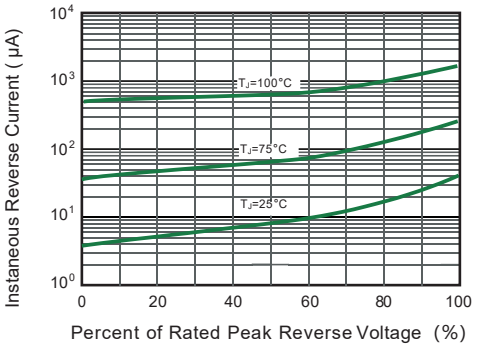


Fig.3 TYPICAL FORWARD VOLTAGE

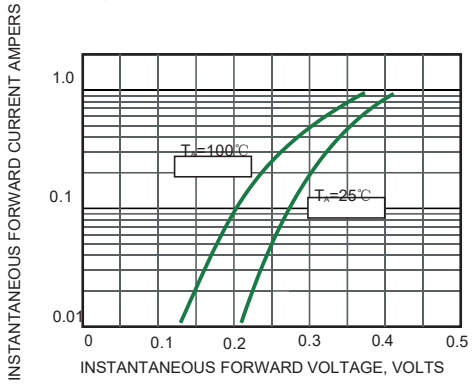


Fig.4 Typical Junction Capacitance

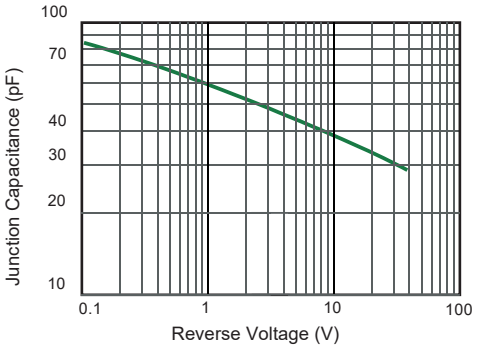


Fig.5 Maximum Non-Repetitive Peak Forward Surage Current

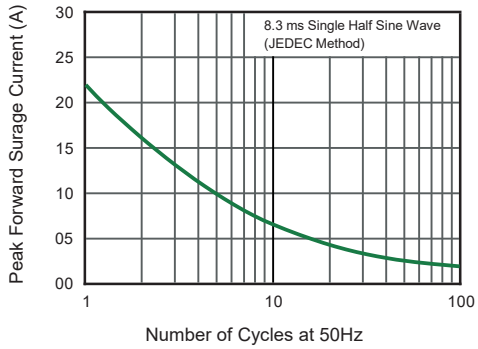
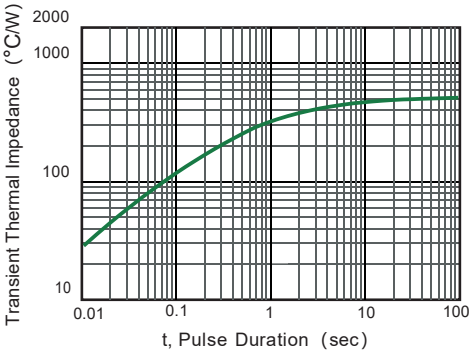


Fig.6 Typical Transient Thermal Impedance



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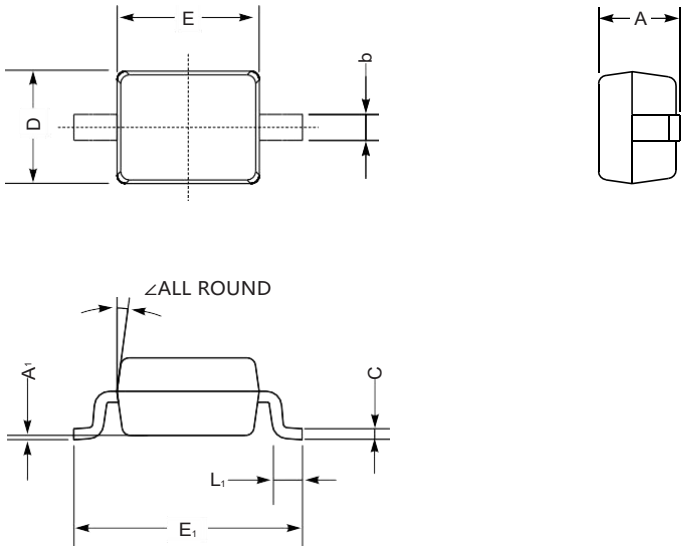
PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

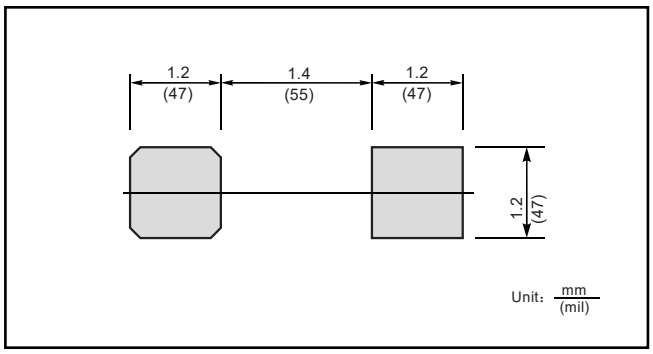
SOD-323



SOD-323 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	63	100	9.8	7.9	—	

The recommended mounting pad size



Marking

Type number	Marking code
B0520WS-AT	SD
B0530WS-AT	SE
B0540WS-AT	SF

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