

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	B0530WS	B0540WS	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°C	I_O	0.5			A	
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	5.5			A	
Maximum Instantaneous Forward Voltage	V_F	IF=0.1A	0.33	0.36	–	V
		IF=0.5A	0.39	0.45	0.51	
		IF=1A	–	–	0.62	
Reverse current	I_R	VR=10V	75	–	–	uA
		VR=15V	–	75	–	
		VR=20V	250	100	10	
		VR=30V	–	500	–	
		VR=40V	–	–	20	
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	

Fig.1 Forward Current Derating Curve

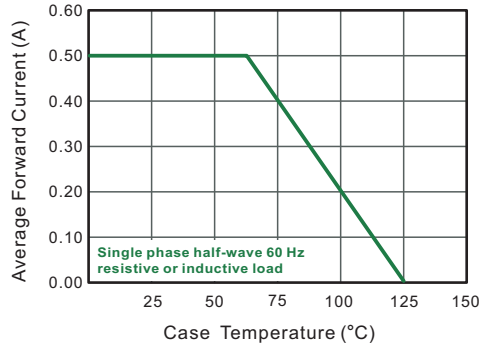


Fig.2 Typical Reverse Characteristics

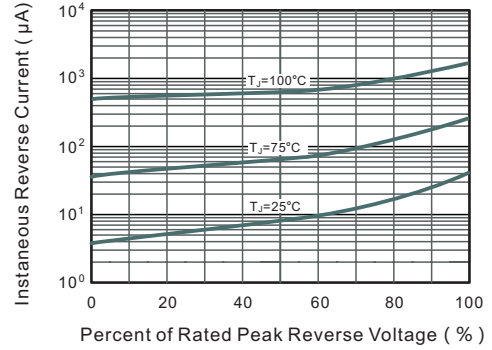


Fig.3 Forward Characteristics

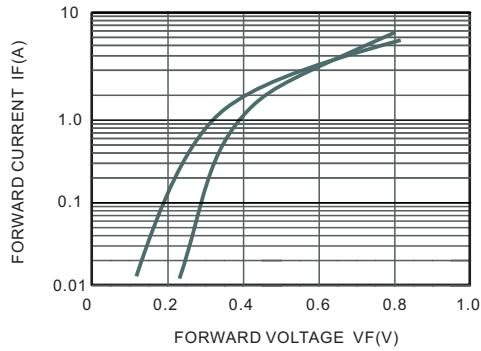
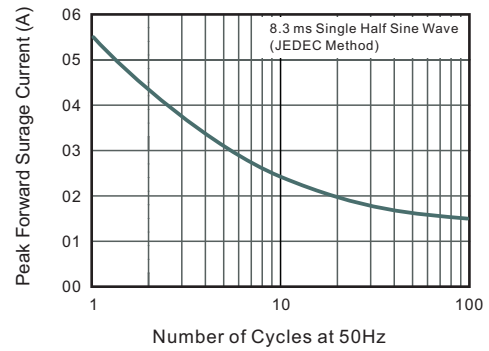


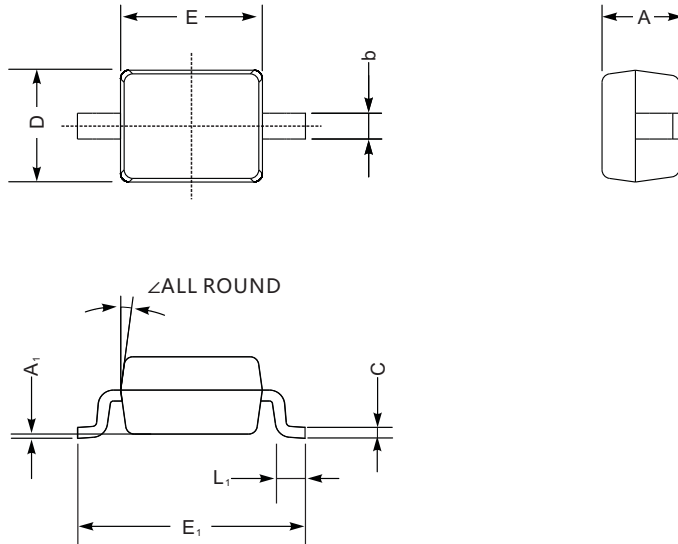
Fig.4 Maximum Non-Repetitive Peak Forward Surge Current



PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

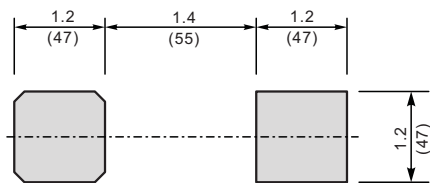
SOD-323



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



Unit: $\frac{\text{mm}}{\text{mil}}$