

SCHOTTKY BARRIER RECTIFIERS

FEATURES

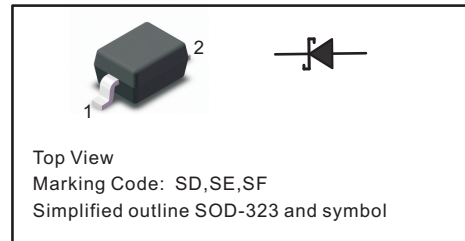
- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- High Conductance
- Also Available in Lead Free Version

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



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}	22			A
Maximum Instantaneous Forward Voltage	$I_F=0.1A$	0.33	0.36	–	V
	$I_F=0.5A$	0.39	0.45	0.51	
	$I_F=1A$	–	–	0.62	
Reverse current	$V_R=10V$	75	–	–	uA
	$V_R=15V$	–	75	–	
	$V_R=20V$	250	100	10	
	$V_R=30V$	–	500	–	
	$V_R=40V$	–	–	20	
Thermal Resistance, Junction to Ambient Air	$R_{\theta JA}$	500			°C/W
Junction temperature	T_j	-55 ~ +125			°C
Storage temperature	T_{stg}	-55 ~ +150			°C

Fig.1 Forward Current Derating Curve

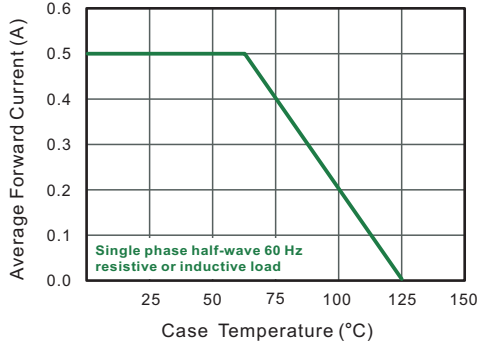


Fig.2 Typical Reverse Characteristics

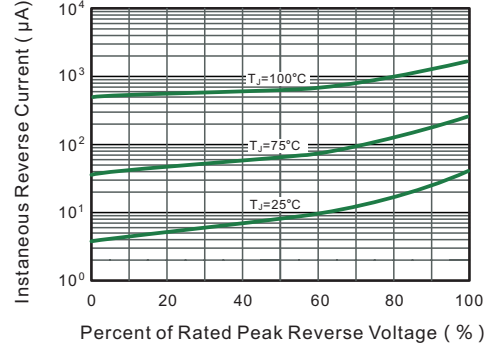


Fig.3 TYPICAL FORWARD VOLTAGE

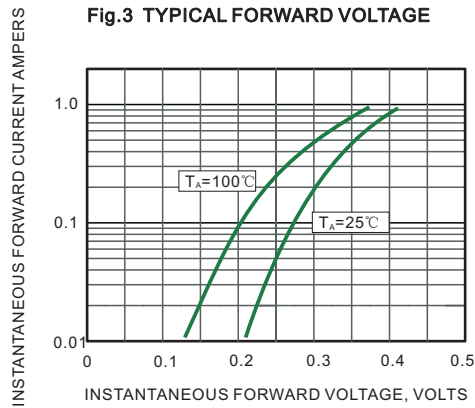


Fig.4 Typical Junction Capacitance

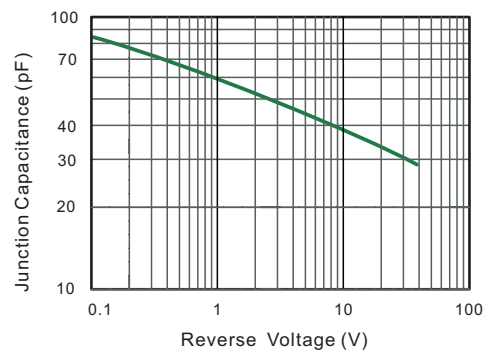


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

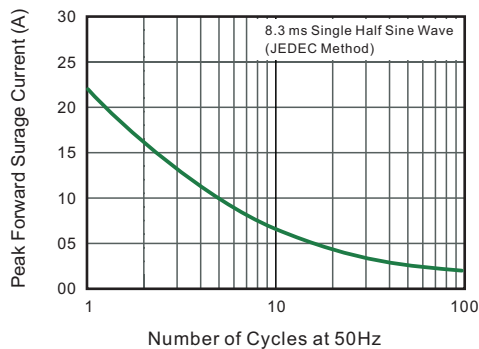
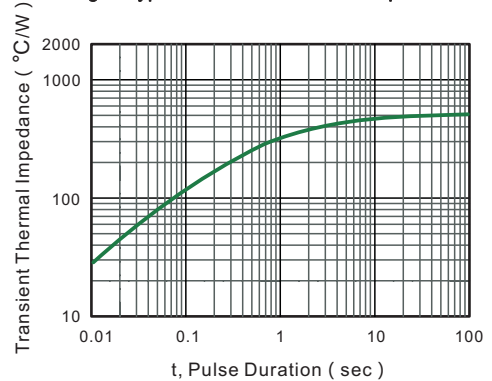


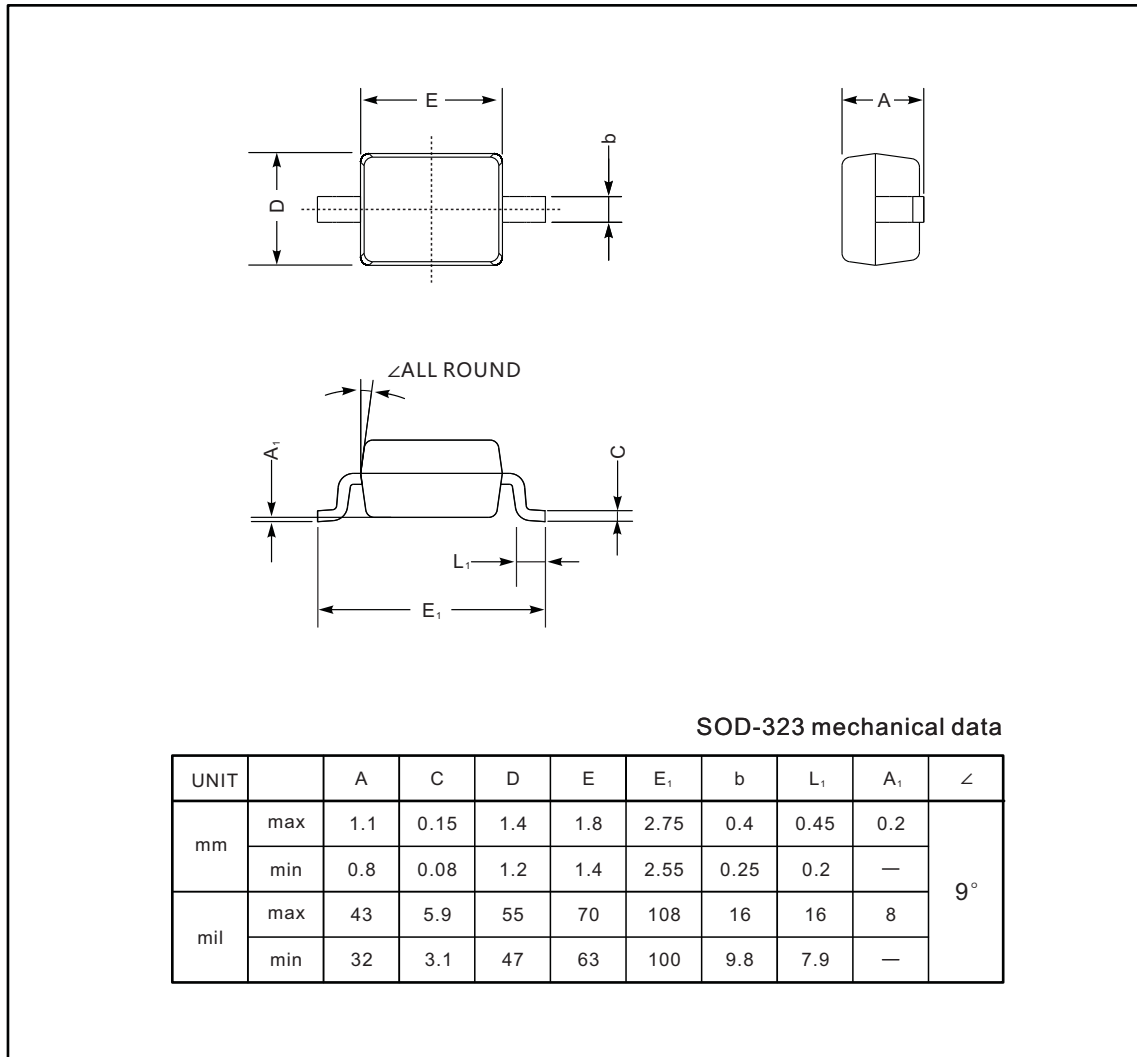
Fig.6 Typical Transient Thermal Impedance



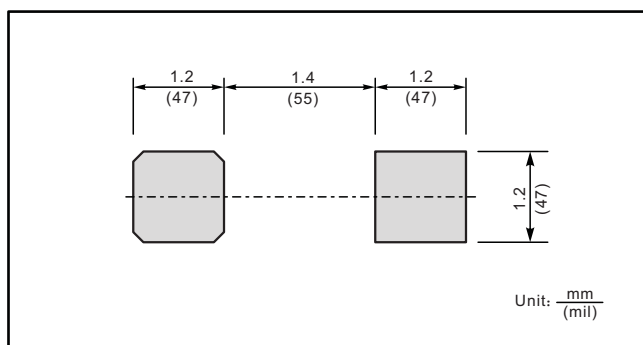
PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-323



The recommended mounting pad size



Marking

Type number	Marking code
B0520WS	SD
B0530WS	SE
B0540WS	SF