

**SCHOTTKY BARRIER RECTIFIERS**
**FEATURES**

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

**PINNING**

PIN	DESCRIPTION
1	Cathode
2	Anode



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

**MECHANICAL DATA**

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

**Maximum Ratings and Electrical characteristics**

Ratings at 25 °C ambient temperature unless otherwise specified.

Parameter	Symbols	KB0520WS-7-F	KB0530WS-7-F	KB0540WS-7-F	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

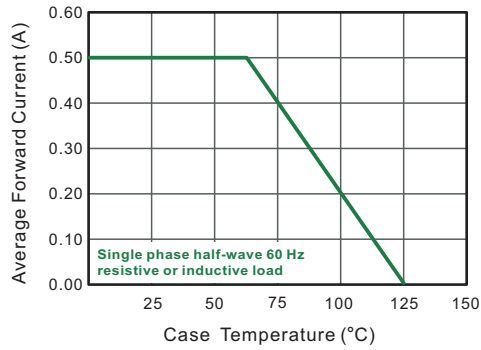


Fig.2 Typical Reverse Characteristics

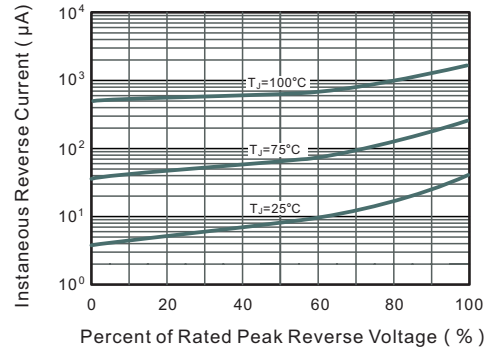


Fig.3 Forward Characteristics

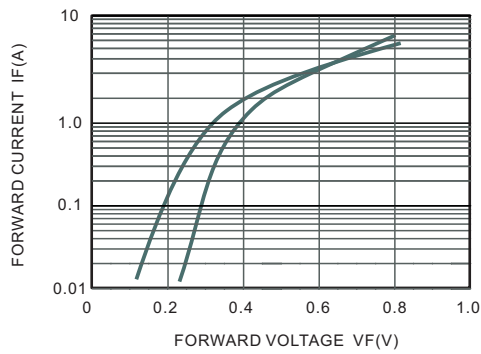
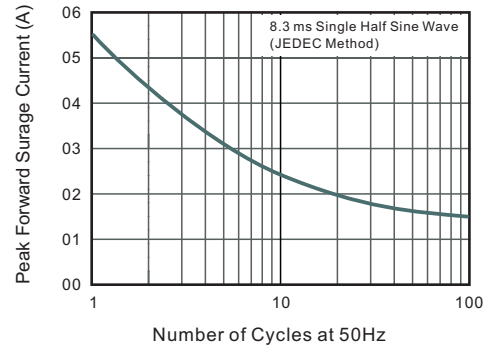


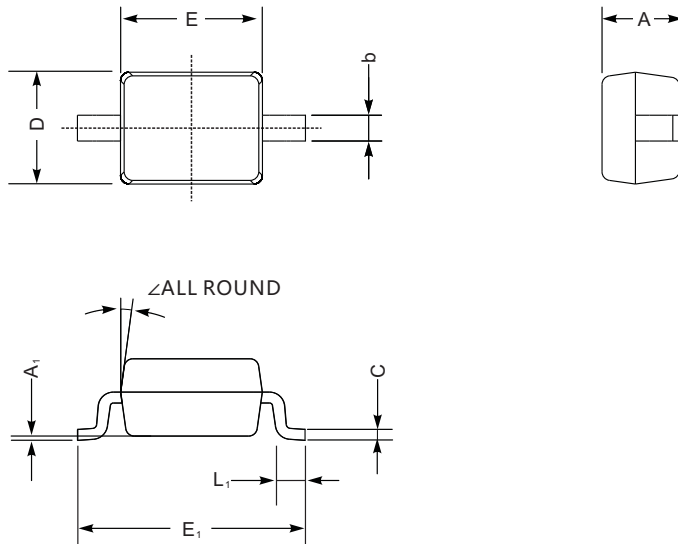
Fig.4 Maximum Non-Repetitive Peak Forward Surge Current



**PACKAGE OUTLINE**

Plastic surface mounted package; 2 leads

**SOD-323**



SOD-323 mechanical data

UNIT		A	C	D	E	E <sub>1</sub>	b	L <sub>1</sub>	A <sub>1</sub>	∠
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**

