

Schottky Barrier Diode

General Description

The SDB0530 Schottky barrier diodes are designed for high-speed switching applications, circuit protection, and voltage clamping. Extremely low forward voltage reduces conduction. Miniature surface mount package is excellent for hand-held and portable applications where space is limited.



SOD-323

Features and Benefits

- Low forward drop voltage and low leakage current
- Very low switching time
- “Green” device and RoHS compliant device
- Available in full lead (Pb)-free device



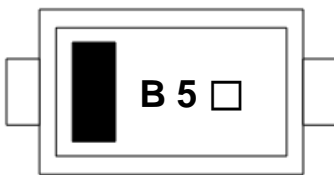
Applications

- General purpose and high speed switching
- Protection circuit and voltage clamping

Ordering Information

Part Number	Marking Code	Package	Packaging
SDB0530	B5 □	SOD-323	Tape & Reel

Marking Information

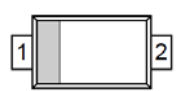
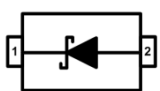


B 5 = Specific Device Code

□ = Year & Week Code Marking

■ = Color band denote cathode

Pinning Information

Pin	Description	Simplified Outline	Graphic Symbol
1	Cathode		
2	Anode		

Absolute Maximum Ratings (T_{amb}=25°C, Unless otherwise specified)

Characteristic	Symbol	Ratings	Unit
Peak reverse voltage	V _{RM}	30	V
Forward current	I _F	500	mA
Peak surge forward current (Non-repetitive 60Hz sine wave)	I _{FSM}	3	A
Power dissipation	P _D ¹⁾	200	mW
Junction temperature	T _J	150	°C
Storage temperature range	T _{stg}	-55 ~ 150	°C

* 1) Device mounted on glass epoxy PCB (recommanderable minimum solder land)

Electrical Characteristics (T_{amb}=25°C, Unless otherwise specified)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Peak forward voltage	V _{FM} ²⁾	I _F =100mA	-	-	0.36	V
		I _F =500mA	-	-	0.47	V
Repetitive peak reverse current	I _{RRM}	V _R =30V	-	-	200	μA
Total capacitance	C _T	V _R =10V, f=1.0MHz	-	15.5	-	pF

* 2) Pulse test: t_p≤380μs, Duty cycle≤2%

Rating and Characteristic Curves

Fig. 1 $I_F - V_F$

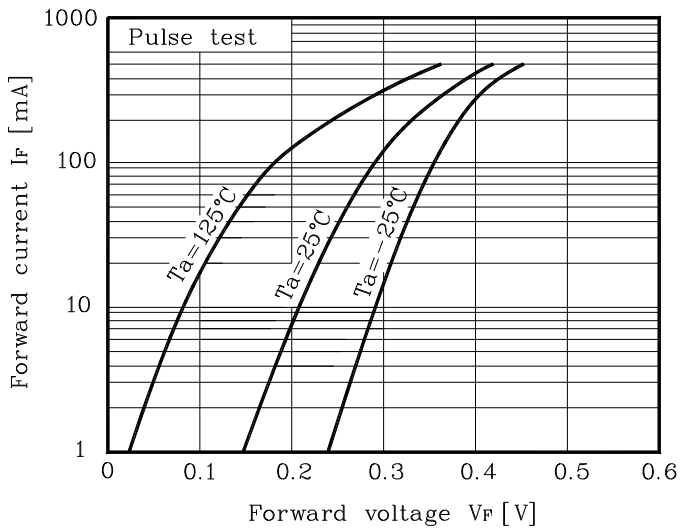


Fig. 2 $I_R - V_R$

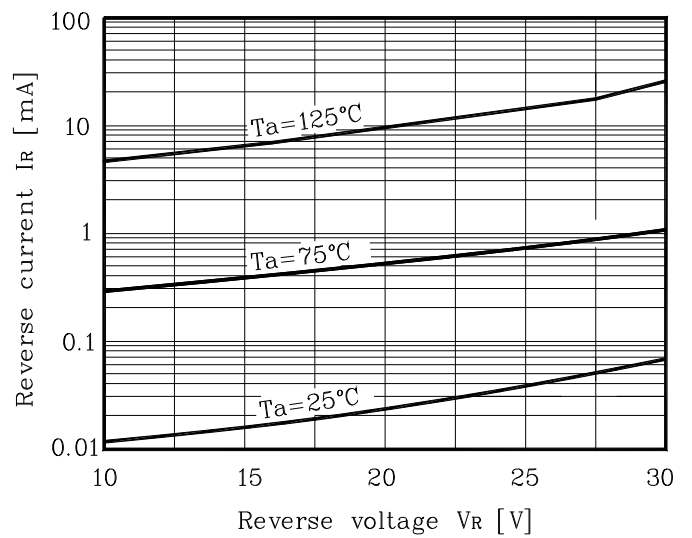
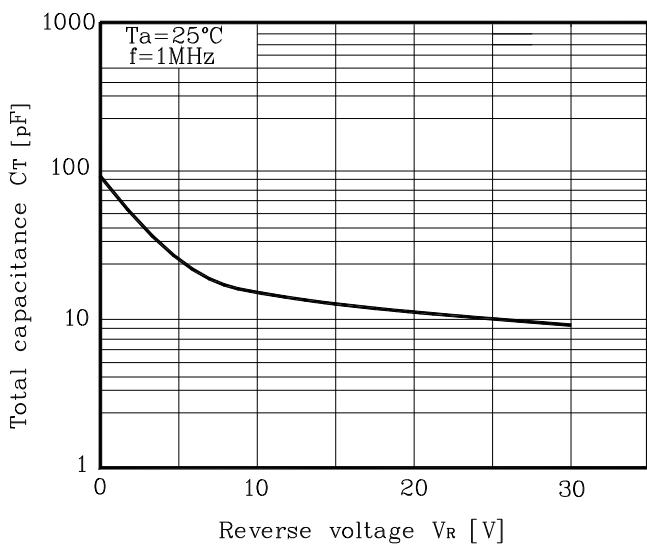
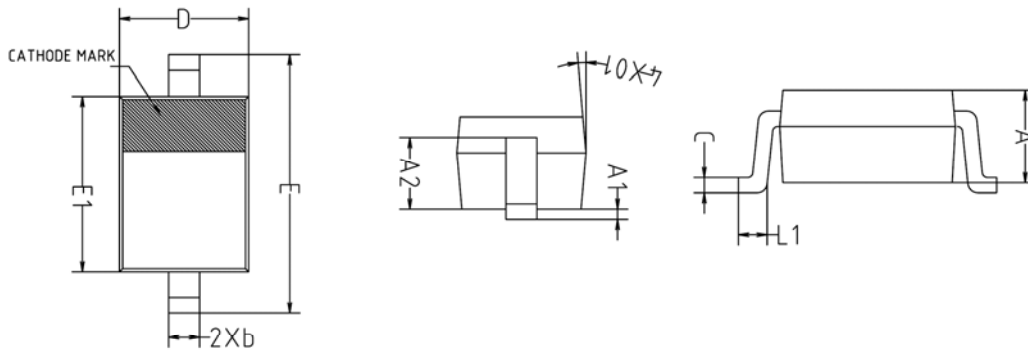


Fig. 3 $C_T - V_R$

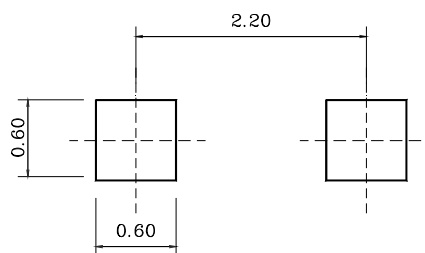


Package Outline Dimensions



SYMBOL	MILLIMETERS			NOTE
	MINIMUM	NOMINAL	MAXIMUM	
A	0.850	-	0.950	
A1	0.000	-	0.100	
A2	0.650	0.700	0.750	
b	0.250	0.300	0.350	
c	0.110	0.150	0.190	
D	1.200	1.250	1.300	
E	2.400	2.500	2.600	
E1	1.650	1.700	1.750	
L1	0.200	-	0.300	
∅2	5° REF			

※ Recommend PCB solder land (Unit : mm)



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