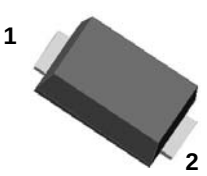
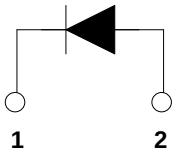
30V, 1A SCHOTTKY BARRIER RECTIFIER

Features

- Low forward voltage drop
- Low power loss and High efficiency
- Low leakage current
- High surge capability
- Full lead (Pb)-free and RoHS compliant device





Pin Configuration
Pin 1: Cathode
Pin 2: Anode

SOD-123

Applications

- High efficiency SMPS
- Output rectification
- High frequency switching
- Freewheeling
- DC-DC converter systems

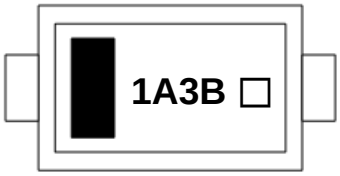
Description

The SDB130B is suited for Switch Mode Power Supply and high frequency DC to DC converters. This device is especially intended for use in low voltage, high frequency inverters, freewheeling and polarity protection applications.

Ordering Information

Device	Marking Code	Package	Packaging
SDB130B	1A3B□	SOD-123	Tape & Reel

Marking Information



1A3B = Specific Device Code

□ = Year & Week Code Marking

■ = Color band denote cathode

Absolute Maximum Ratings (Rating at 25℃ ambient temperature unless otherwise specified.)

Characteristic	Symbol	Value	Unit
Maximum repetitive reverse voltage	V_{RM}	30	V
Maximum DC blocking voltage	V_R	30	V
Average forward rectified current	I_F	1	A
Non-repetitive peak forward surge current (t=8.3ms)	I_{FSM}	8	A
Operating junction temperature	T_J	150	°C
Storage temperature range	T_{stg}	-55 ~ 150	

Electrical Characteristics (Rating at 25℃ ambient temperature unless otherwise specified.)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Forward voltage	V_F 1)	I_F=1A	-	-	0.49	V
Reverse leakage current	I_R	V_R=30V	-	-	150	uA
Total capacitance	C_T	V_R=10V, f=1MH$_Z$	-	70	-	pF
Thermal resistance	$R_{th(j-a)}$ 2)	Junction to ambient	-	-	140	°C/W

* 1) Pulse test : t_P≤380us, Duty cycle≤2%

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

Electrical Characteristic Curves

Fig. 1 I_F - V_F

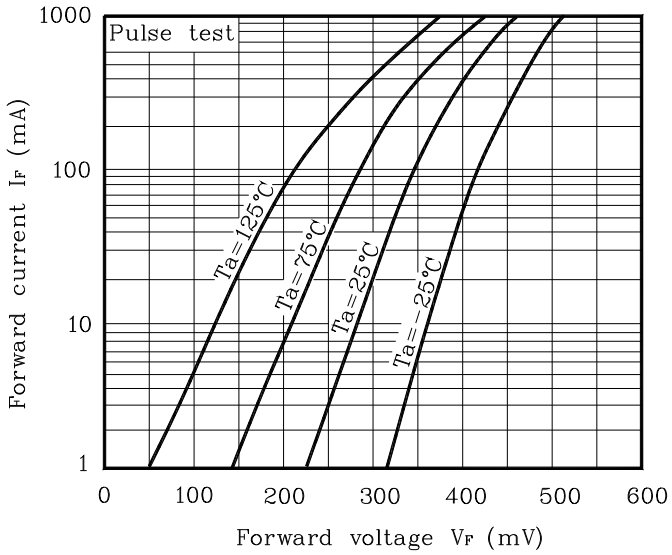


Fig. 2 I_R - V_R

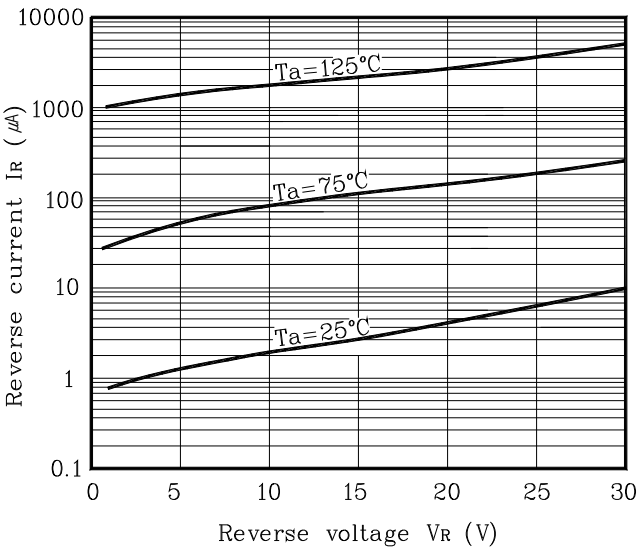
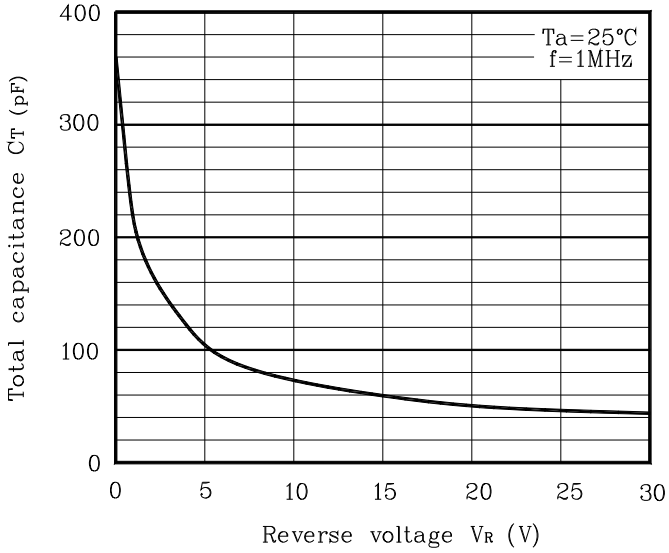
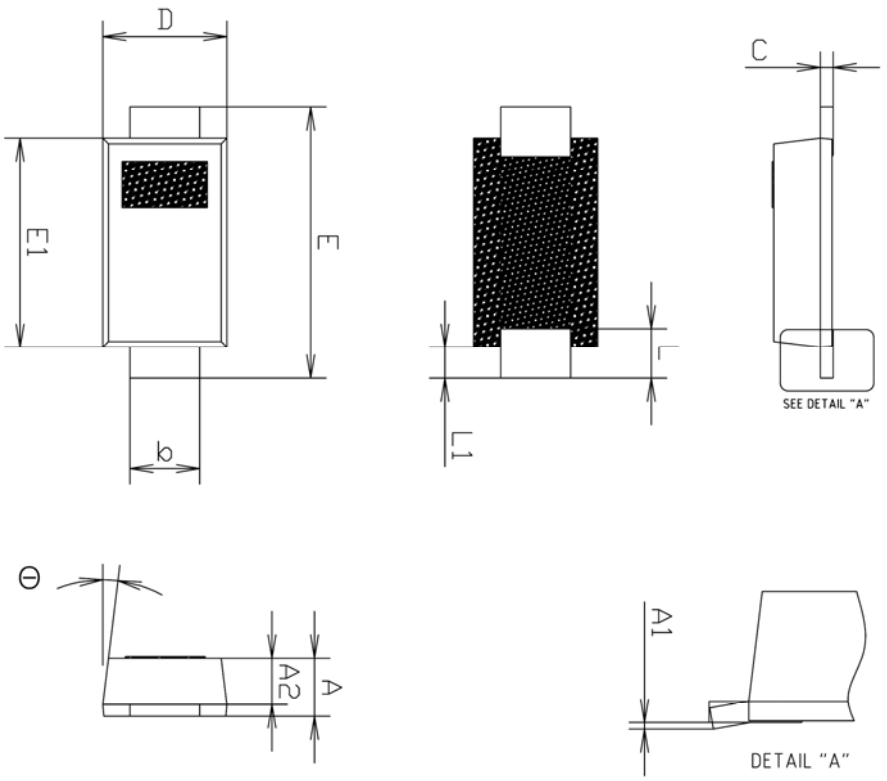


Fig. 3 C_T - V_R

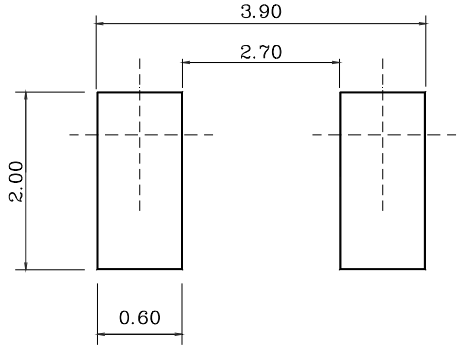


Package Outline Dimension (Unit: mm)



SYMBOL	MILLIMETERS			NOTE
	MINIMUM	NOMINAL	MAXIMUM	
A	0.70	0.750	0.80	
A1	0.00	—	0.10	
A2	0.55	0.60	0.65	
b	0.85	0.92	0.99	
c	0.12	0.17	0.22	
D	1.50	1.60	1.70	
E	3.30	3.50	3.70	
E1	2.60	2.70	2.80	
L	0.49	0.64	0.79	
L1	0.30	0.40	0.50	
Θ	4°	—	10°	

Recommend PCB Solder Land Dimension (Unit: mm)



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