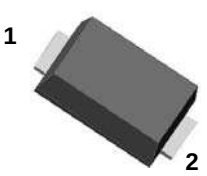
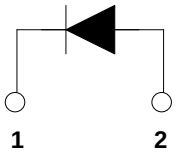
# 30V, 1A SCHOTTKY BARRIER RECTIFIER

## 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

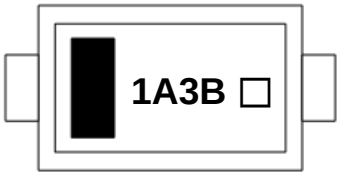
## Description

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 $I_F$ - $V_F$**

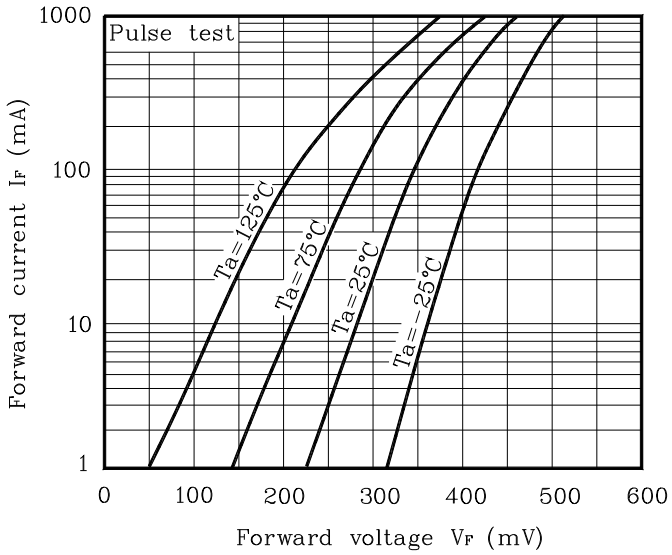



**Fig. 2 $I_R$ - $V_R$**

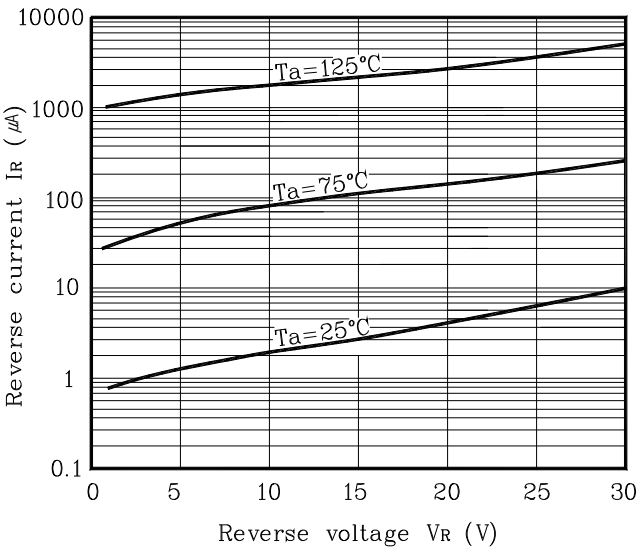
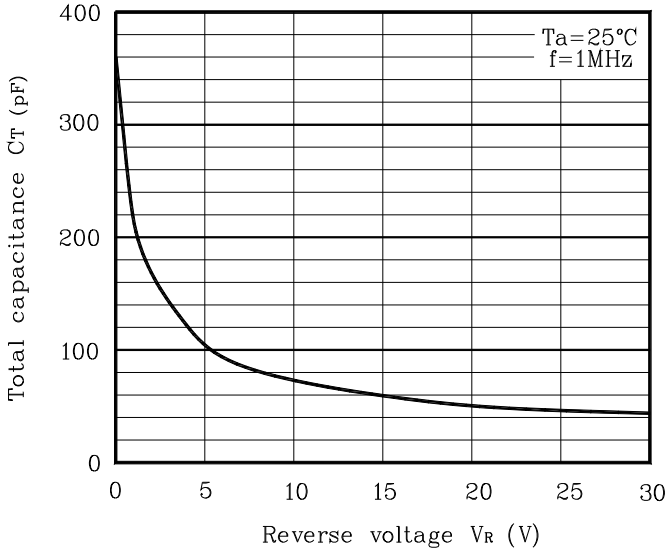
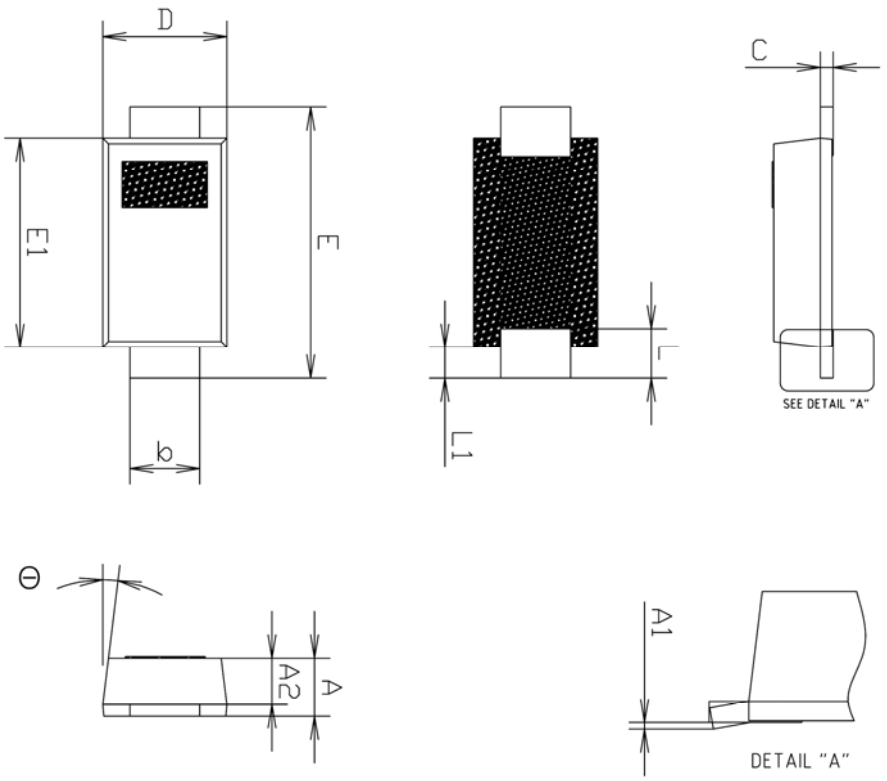



**Fig. 3 $C_T$ - $V_R$**

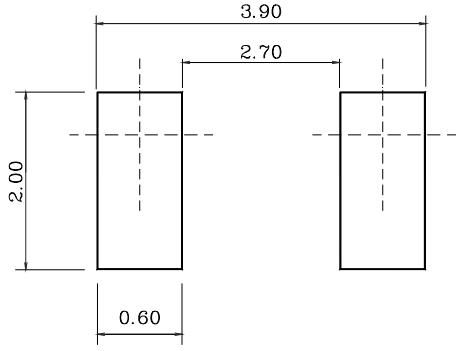


## Package Outline Dimension (Unit: mm)




| 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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