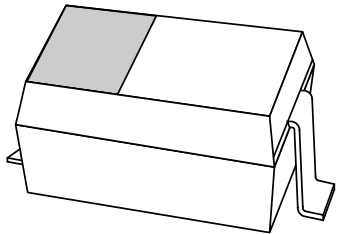


# DATA SHEET



## **1PS76SB62** Schottky barrier diode

Product specification

2001 Feb 16

## Schottky barrier diode

1PS76SB62

## FEATURES

- Ultra high switching speed
- Very low capacitance
- High breakdown voltage
- Guard ring protected
- Two pin very small plastic SMD package.

## APPLICATIONS

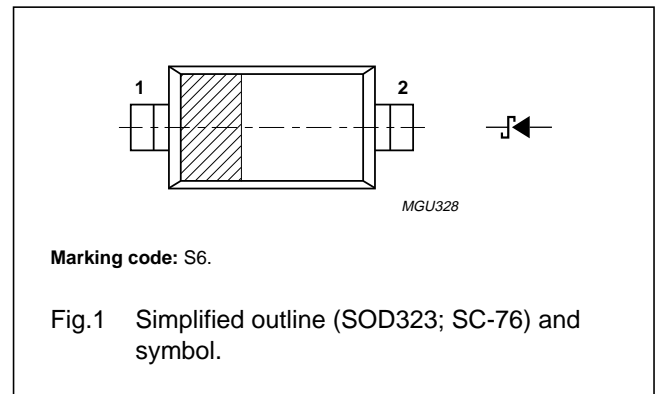
- Ultra high-speed switching
- High frequency applications.

## DESCRIPTION

Epitaxial Schottky barrier diode encapsulated in a SOD323 (SC-76) very small plastic SMD package. ESD sensitive device, observe handling precautions.

## PINNING

PIN	DESCRIPTION
1	cathode
2	anode



## LIMITING VALUES

In accordance with the Absolute Maximum Rating System (IEC 60134).

SYMBOL	PARAMETER	MIN.	MAX.	UNIT
$V_R$	continuous reverse voltage	–	40	V
$I_F$	continuous forward current	–	20	mA
$T_{stg}$	storage temperature	–65	+150	°C
$T_j$	junction temperature	–	125	°C
$T_{amb}$	operating ambient temperature	–65	+125	°C

## ELECTRICAL CHARACTERISTICS

$T_{amb} = 25\text{ °C}$  unless otherwise specified.

SYMBOL	PARAMETER	CONDITIONS	MAX.	UNIT
$V_F$	forward voltage	$I_F = 2\text{ mA}$ ; see Fig.2; note 1	800	mV
$I_R$	reverse current	$V_R = 40\text{ V}$ ; see Fig.3; note 1	1	$\mu\text{A}$
$C_d$	diode capacitance	$V_R = 0\text{ V}$ ; $f = 1\text{ MHz}$ ; see Fig.4	0.6	pF

## Note

1. Pulse test: pulse width = 300  $\mu\text{s}$ ;  $\delta = 0.02$ .

## THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$R_{th\ j-a}$	thermal resistance from junction to ambient	note 1	450	K/W

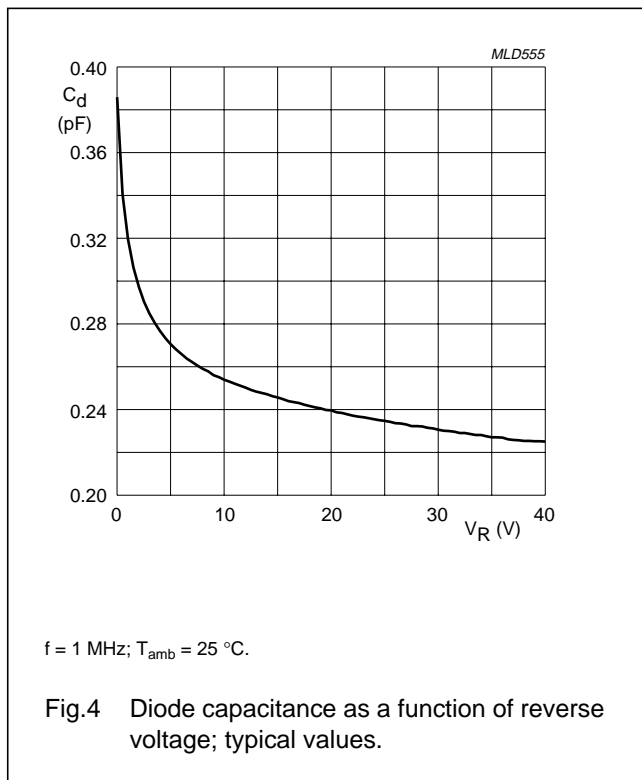
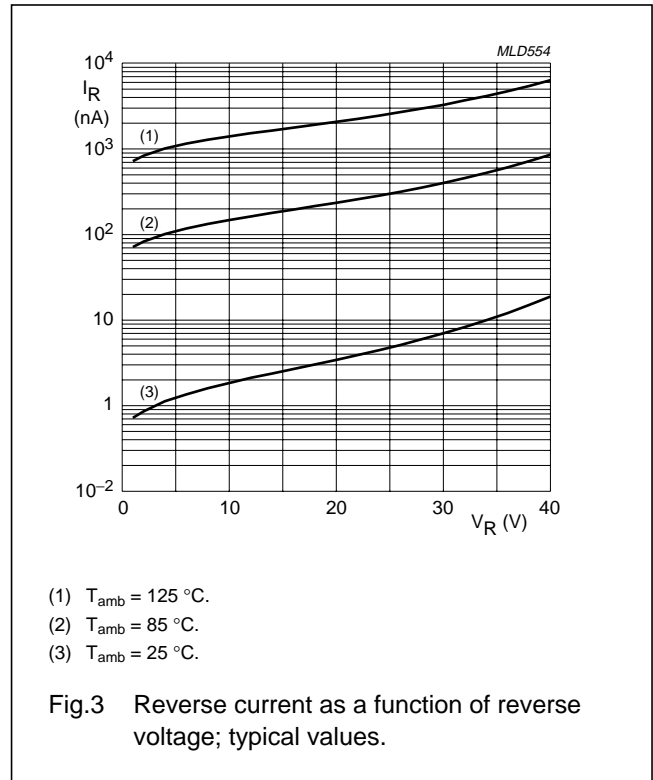
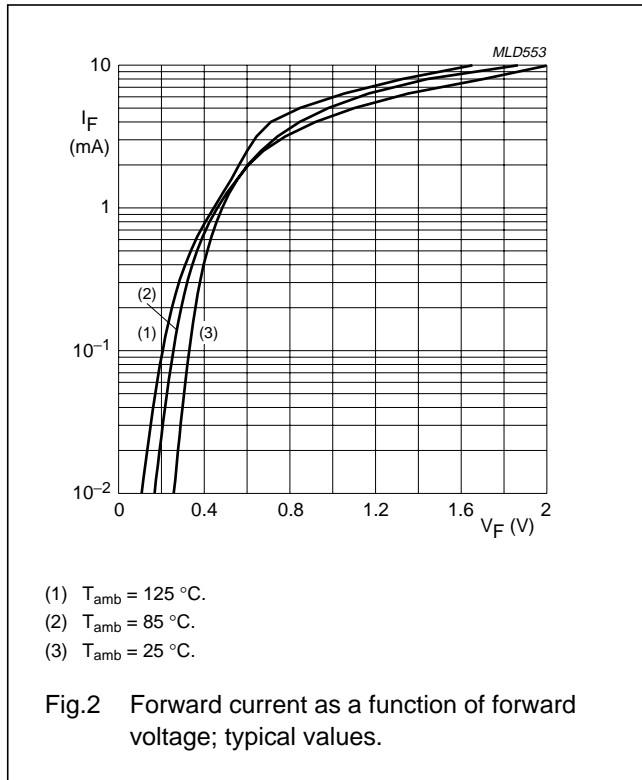
## Note

1. Refer to SOD323 (SC-76) standard mounting conditions.

Schottky barrier diode

1PS76SB62

GRAPHICAL DATA



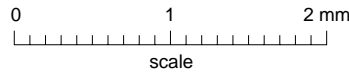
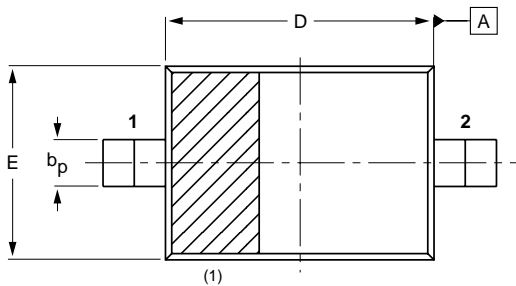
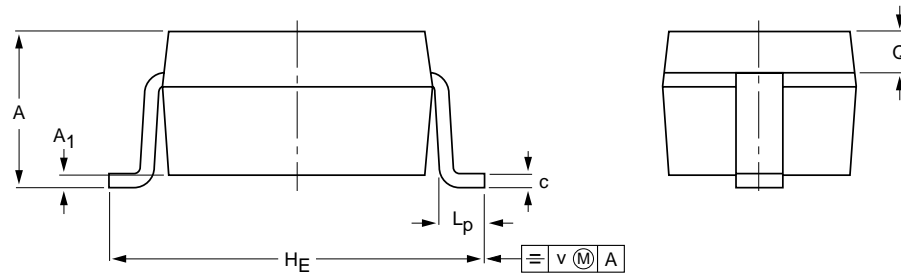
Schottky barrier diode

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PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD323



DIMENSIONS (mm are the original dimensions)

UNIT	A	A <sub>1</sub> max.	b <sub>p</sub>	c	D	E	H <sub>E</sub>	L <sub>p</sub>	Q	v
mm	1.1 0.8	+0.05 -0.05	0.40 0.25	0.25 0.10	1.8 1.6	1.35 1.15	2.7 2.3	0.45 0.15	0.25 0.15	0.2

Note

1. The marking bar indicates the cathode.

OUTLINE VERSION	REFERENCES			EUROPEAN PROJECTION	ISSUE DATE
	IEC	JEDEC	EIAJ		
SOD323			SC-76		98-09-14 99-09-13

## Schottky barrier diode

1PS76SB62

## DATA SHEET STATUS

DATA SHEET STATUS	PRODUCT STATUS	DEFINITIONS <sup>(1)</sup>
Objective specification	Development	This data sheet contains the design target or goal specifications for product development. Specification may change in any manner without notice.
Preliminary specification	Qualification	This data sheet contains preliminary data, and supplementary data will be published at a later date. Philips Semiconductors reserves the right to make changes at any time without notice in order to improve design and supply the best possible product.
Product specification	Production	This data sheet contains final specifications. Philips Semiconductors reserves the right to make changes at any time without notice in order to improve design and supply the best possible product.

## Note

1. Please consult the most recently issued data sheet before initiating or completing a design.

## DEFINITIONS

**Short-form specification** — The data in a short-form specification is extracted from a full data sheet with the same type number and title. For detailed information see the relevant data sheet or data handbook.

**Limiting values definition** — Limiting values given are in accordance with the Absolute Maximum Rating System (IEC 60134). Stress above one or more of the limiting values may cause permanent damage to the device. These are stress ratings only and operation of the device at these or at any other conditions above those given in the Characteristics sections of the specification is not implied. Exposure to limiting values for extended periods may affect device reliability.

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Schottky barrier diode

1PS76SB62

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**NOTES**

Schottky barrier diode

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**NOTES**

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