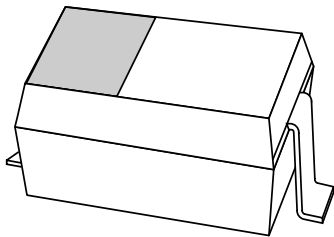


# DATA SHEET



## **1PS76SB17** Schottky barrier diode

Preliminary specification  
Supersedes data of 1996 Oct 14

1999 May 25

## Schottky barrier diode

1PS76SB17

## FEATURES

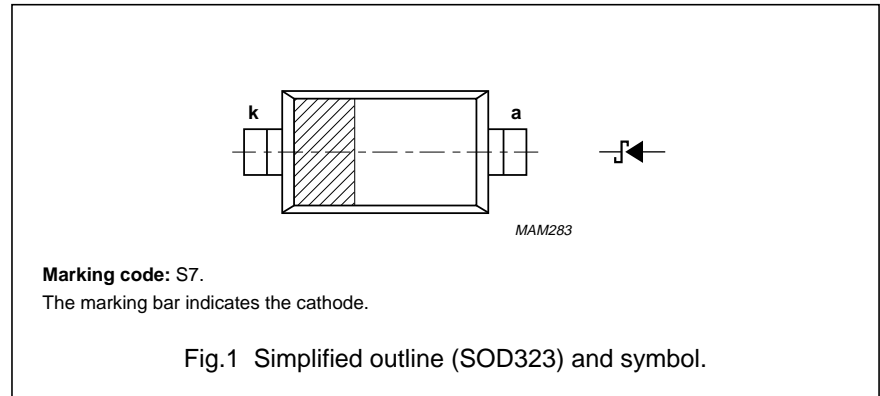
- Low forward voltage
- Low diode capacitance
- ESD > 500 V; Human body model
- Very small plastic SMD package.

## APPLICATIONS

- UHF mixers
- Sampling circuits
- Modulators
- Phase detectors.

## DESCRIPTION

Planar Schottky barrier diode encapsulated in a SOD323 very small plastic SMD package.



## LIMITING VALUES

In accordance with the Absolute Maximum Rating System (IEC 134).

SYMBOL	PARAMETER	MIN.	MAX.	UNIT
$V_R$	continuous reverse voltage	–	4	V
$I_F$	continuous forward current	–	30	mA
$T_{stg}$	storage temperature	–65	+150	°C
$T_j$	junction temperature	–	100	°C

## ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	TYP.	MAX.	UNIT
$V_F$	forward voltage	see Fig.2 $I_F = 0.1\text{ mA}$	–	300	mV
		$I_F = 1\text{ mA}$	360	450	mV
		$I_F = 10\text{ mA}$	470	600	mV
$I_R$	reverse current	$V_R = 3\text{ V}$ ; see Fig.3	0.15	0.25	$\mu\text{A}$
$C_d$	diode capacitance	$f = 1\text{ MHz}$ ; $V_R = 0\text{ V}$ ; see Fig.4	0.8	1	pF
		$f = 1\text{ MHz}$ ; $V_R = 0.5\text{ V}$ ; see Fig.4	0.65	–	pF

## THERMAL CHARACTERISTICS

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

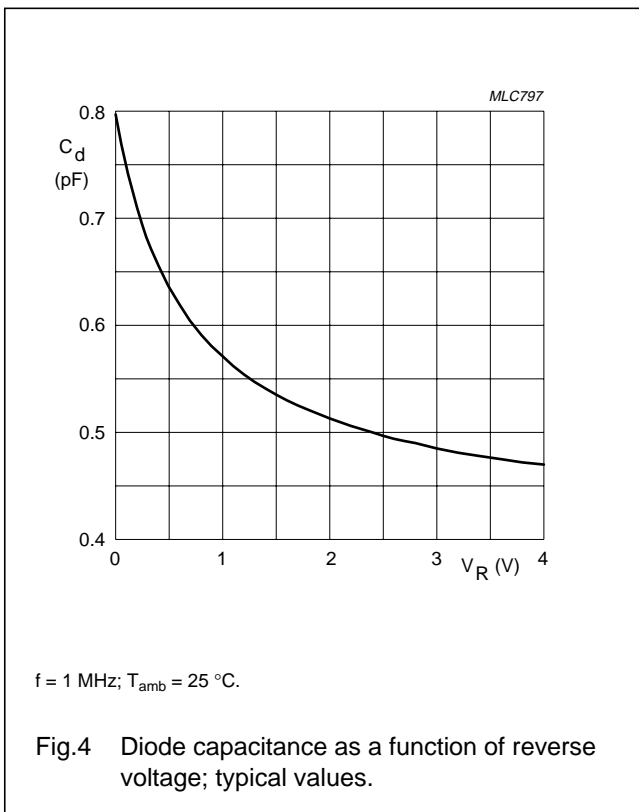
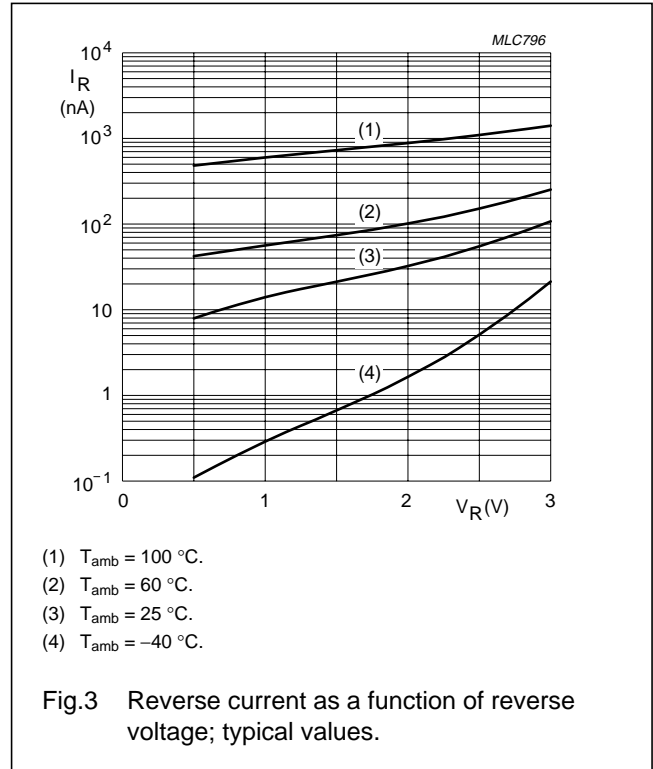
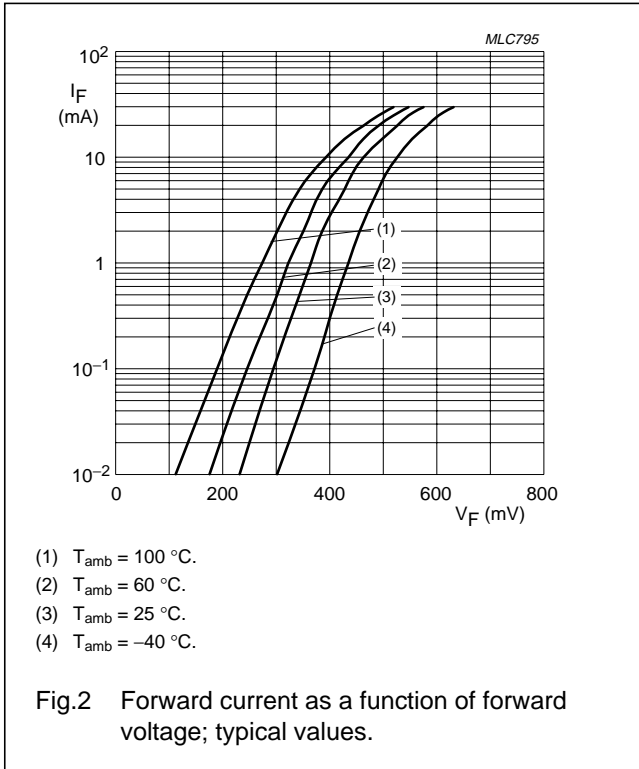
## Note

1. Refer to SOD323 standard mounting conditions.

Schottky barrier diode

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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					98-09-14

## Schottky barrier diode

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**DEFINITIONS**

<b>Data sheet status</b>	
Objective specification	This data sheet contains target or goal specifications for product development.
Preliminary specification	This data sheet contains preliminary data; supplementary data may be published later.
Product specification	This data sheet contains final product specifications.
<b>Limiting values</b>	
Limiting values given are in accordance with the Absolute Maximum Rating System (IEC 134). 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.	
<b>Application information</b>	
Where application information is given, it is advisory and does not form part of the specification.	

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Schottky barrier diode

1PS76SB17

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**NOTES**

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**NOTES**

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