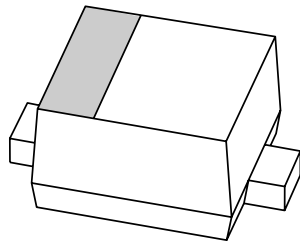


DATA SHEET



1PS79SB30 Schottky barrier diode

Product data sheet

2001 Feb 20

Schottky barrier diode

1PS79SB30

FEATURES

- Very low forward voltage
- Very low reverse current
- Guard ring protected
- Ultra small SMD package.

APPLICATIONS

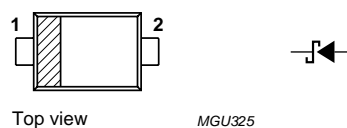
- Ultra high-speed switching
- Voltage clamping
- Protection circuits
- Blocking diodes
- Low power consumption applications (e.g. hand-held applications).

DESCRIPTION

Planar Schottky barrier diode encapsulated in a SC-79 (SOD523) ultra small SMD plastic package.

PINNING

PIN	DESCRIPTION
1	cathode
2	anode



Top view

MGU325

Marking code: G1.

Fig.1 Simplified outline (SC-79; SOD523) and symbol.

LIMITING VALUES

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

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
V_R	continuous reverse voltage		–	40	V
I_F	continuous forward current		–	200	mA
I_{FRM}	repetitive peak forward current	$t_p \leq 1$ s; $\delta \leq 0.5$	–	300	mA
I_{FSM}	non-repetitive peak forward current	$t = 8.3$ ms half sinewave; JEDEC method	–	1	A
T_{stg}	storage temperature		–65	+150	°C
T_j	junction temperature		–	150	°C
T_{amb}	operating ambient temperature		–65	+150	°C

Schottky barrier diode

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ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	TYP.	MAX.	UNIT
V_F	forward voltage	see Fig.2			
		$I_F = 0.1\text{ mA}$	190	220	mV
		$I_F = 1\text{ mA}$	250	290	mV
		$I_F = 10\text{ mA}$	320	360	mV
		$I_F = 100\text{ mA}$	440	500	mV
		$I_F = 200\text{ mA}$	520	600	mV
I_R	continuous reverse current	$V_R = 25\text{ V}$; note 1; see Fig.3	–	0.5	μA
C_d	diode capacitance	$V_R = 1\text{ V}$; $f = 1\text{ MHz}$; see Fig.4	–	20	pF

Note

1. Pulse test: pulse width = 300 μs ; $\delta = 0.02$.

THERMAL CHARACTERISTICS

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

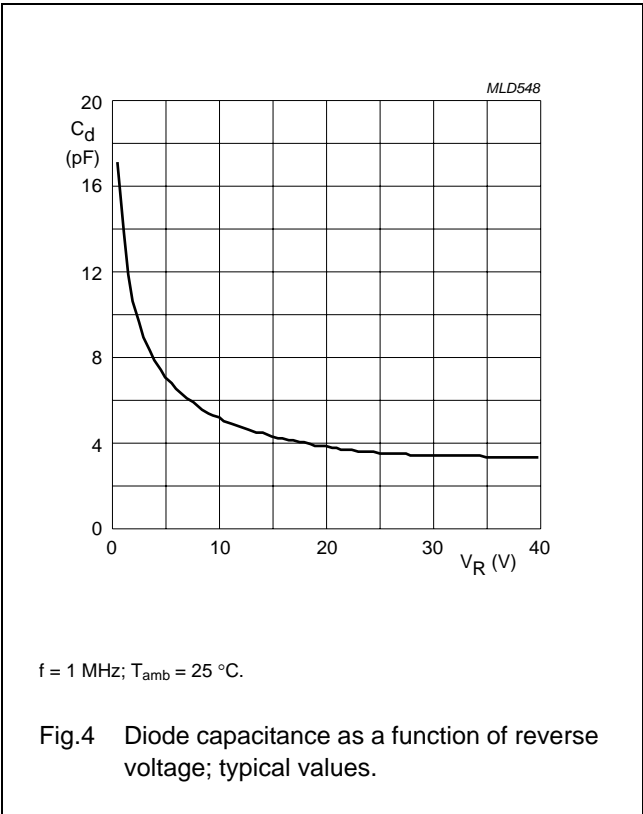
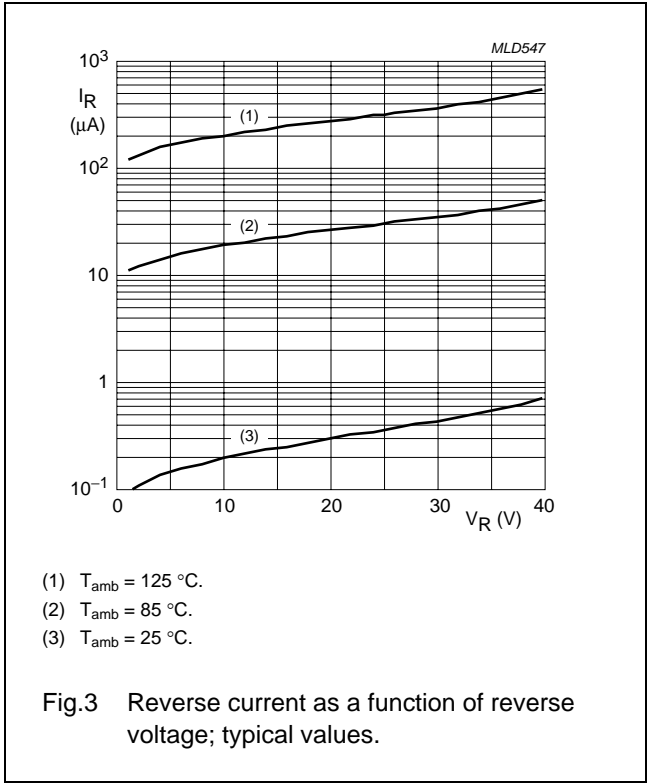
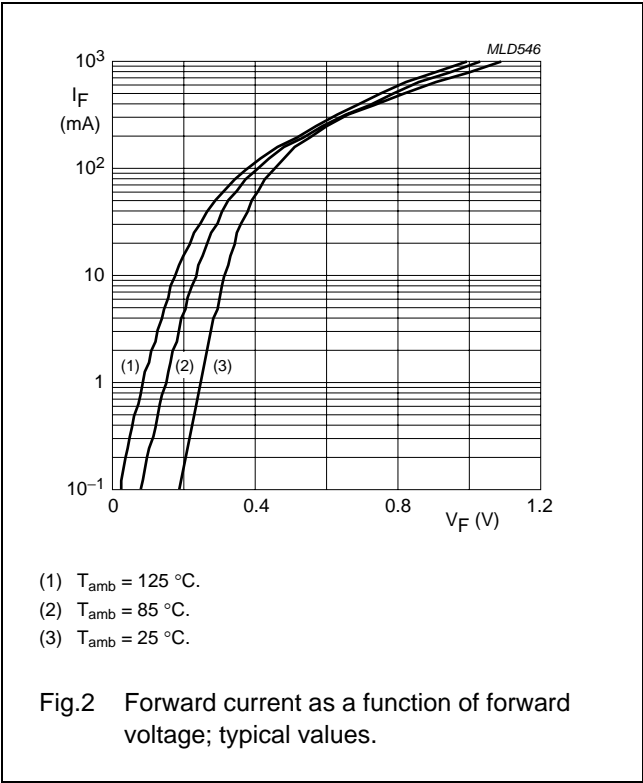
Note

1. Refer to SC-79 (SOD523) standard mounting conditions.

Schottky barrier diode

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GRAPHICAL DATA



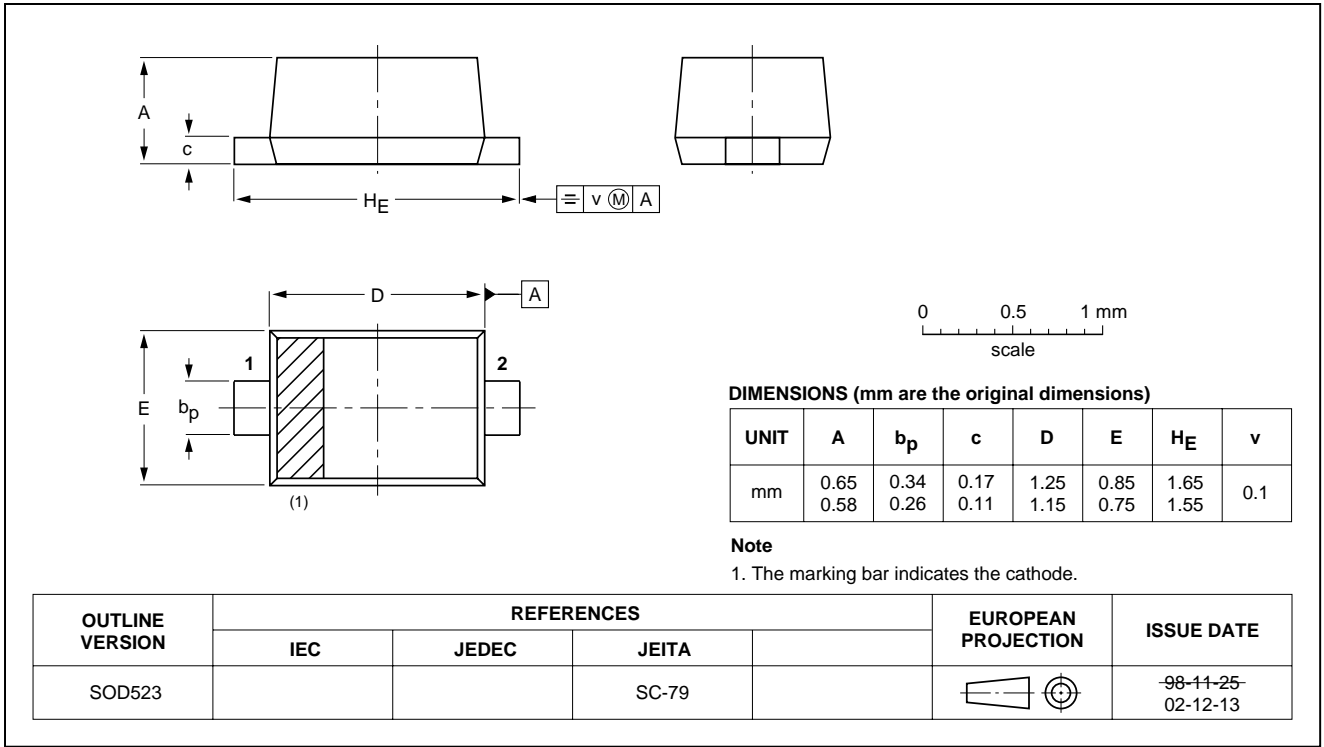
Schottky barrier diode

1PS79SB30

PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD523



Schottky barrier diode

1PS79SB30

DATA SHEET STATUS

DOCUMENT STATUS ⁽¹⁾	PRODUCT STATUS ⁽²⁾	DEFINITION
Objective data sheet	Development	This document contains data from the objective specification for product development.
Preliminary data sheet	Qualification	This document contains data from the preliminary specification.
Product data sheet	Production	This document contains the product specification.

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2. The product status of device(s) described in this document may have changed since this document was published and may differ in case of multiple devices. The latest product status information is available on the Internet at URL <http://www.nxp.com>.

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Customer notification

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Printed in The Netherlands

613514/01/pp7

Date of release: 2001 Feb 20

Document order number: 9397 750 07938

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