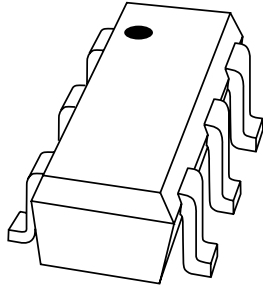


DATA SHEET



1PS88SB82

Schottky barrier triple diode

Product specification

2001 Feb 16

Schottky barrier triple diode

1PS88SB82

FEATURES

- Low forward voltage
- Low diode capacitance
- Three independent diodes in a small SMD plastic package.

APPLICATIONS

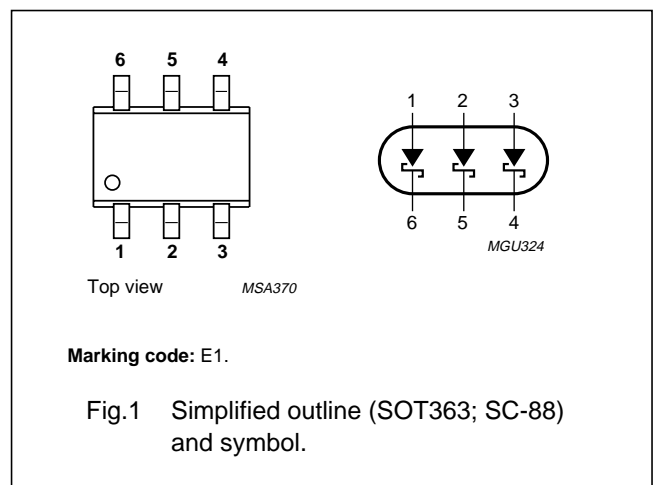
- UHF mixers
- Sampling circuits
- Modulators
- Phase detectors.

DESCRIPTION

Three internal (galvanic) isolated silicon epitaxial Schottky barrier diodes in a SOT363 (SC-88) small SMD plastic package. ESD sensitive device, observe handling precautions.

PINNING

PIN	DESCRIPTION
1	anode (a1)
2	anode (a2)
3	anode (a3)
4	cathode (k3)
5	cathode (k2)
6	cathode (k1)



LIMITING VALUES

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

SYMBOL	PARAMETER	MIN.	MAX.	UNIT
Per diode				
V_R	continuous reverse voltage	–	15	V
I_F	continuous forward voltage	–	30	mA
T_{stg}	storage temperature	–65	+150	°C
T_j	junction temperature	–	125	°C
T_{amb}	operating ambient temperature	–65	+150	°C

Schottky barrier triple diode

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THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$R_{th\ j-a}$	thermal resistance from junction to ambient	note 1	416	K/W

Note

1. Refer to SOT363 standard mounting conditions.

CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	TYP.	MAX.	UNIT
Per diode					
V_F	forward voltage	see note 1 and Fig.2 $I_F = 1\text{ mA}$ $I_F = 30\text{ mA}$	– –	340 700	mV mV
I_R	reverse current	$V_R = 1\text{ V}$; see Fig.3; note 1	–	0.2	μA
r_D	diode forward resistance	$f = 1\text{ kHz}$; $I_F = 5\text{ mA}$; see Fig.5	12	–	Ω
C_d	diode capacitance	$V_R = 0\text{ V}$; $f = 1\text{ MHz}$; see Fig.4	1	–	pF

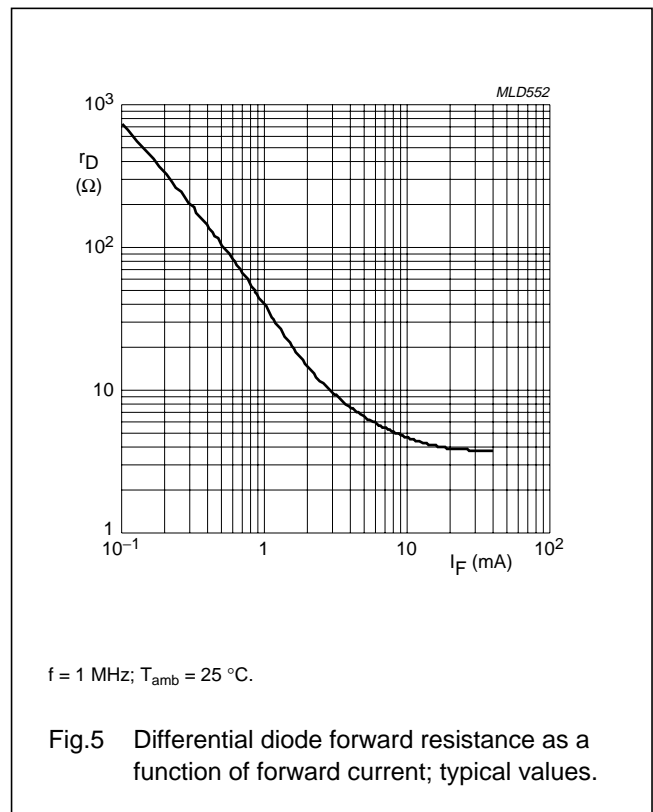
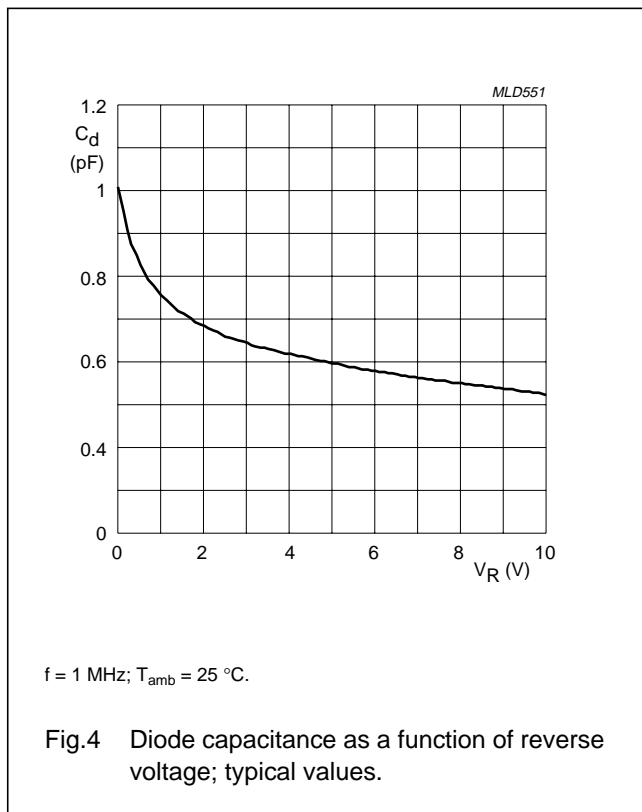
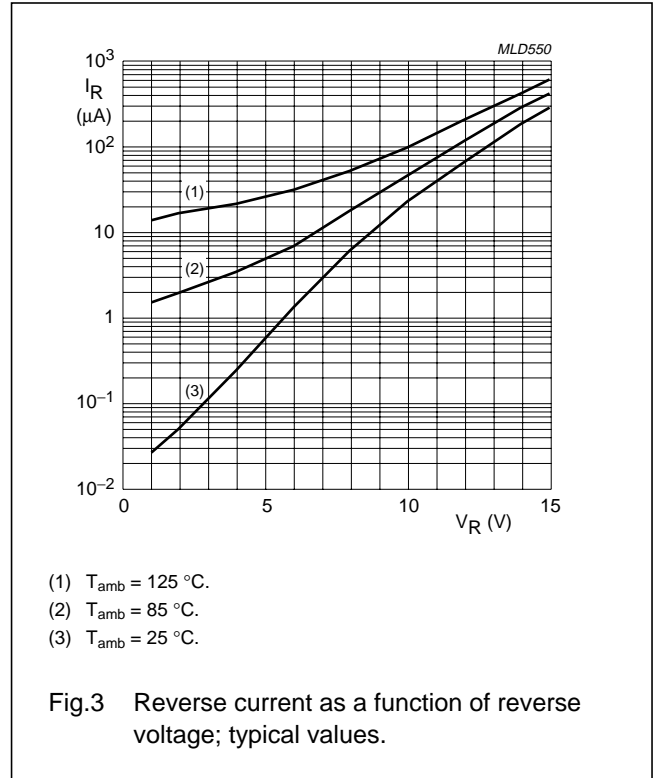
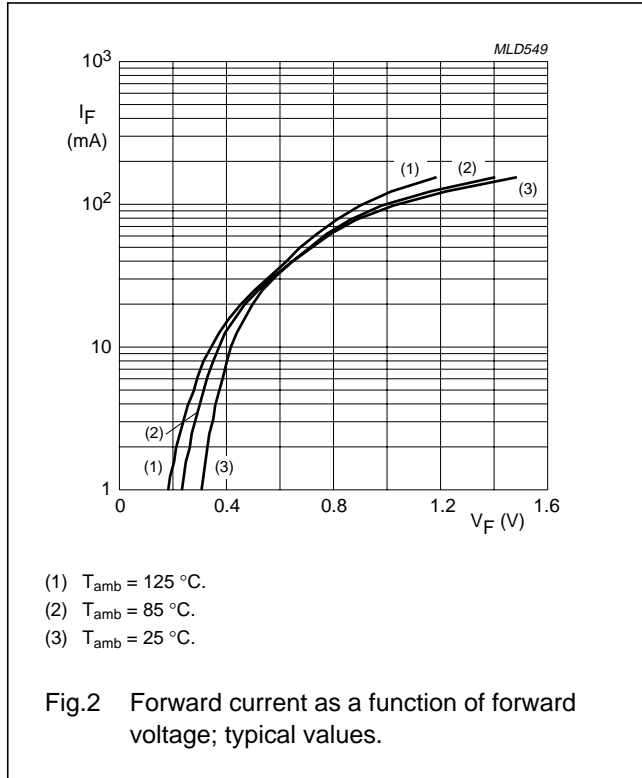
Note

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

Schottky barrier triple diode

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GRAPHICAL DATA



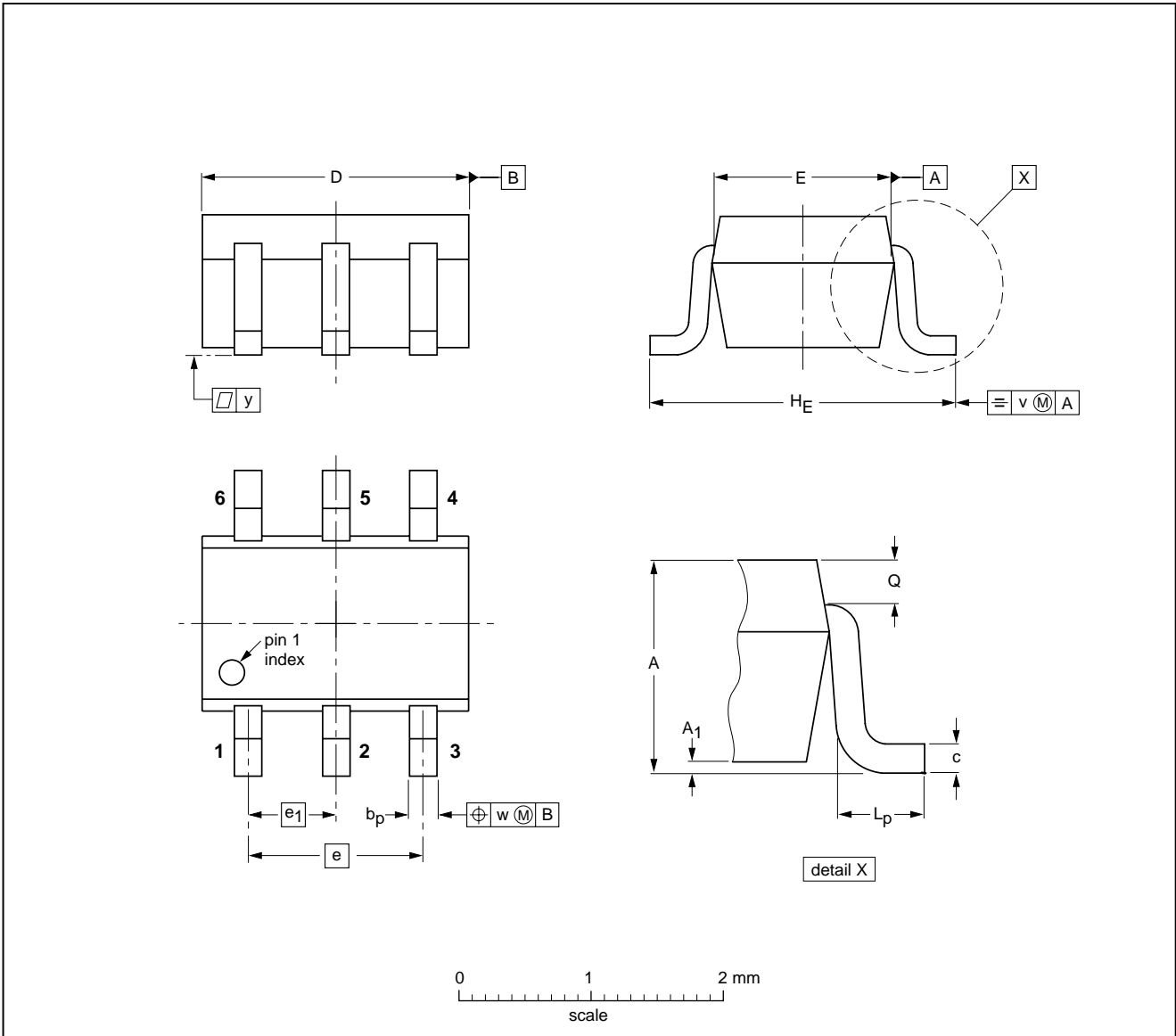
Schottky barrier triple diode

1PS88SB82

PACKAGE OUTLINE

Plastic surface mounted package; 6 leads

SOT363



DIMENSIONS (mm are the original dimensions)

UNIT	A	A1 max	bp	c	D	E	e	e1	HE	Lp	Q	v	w	y
mm	1.1 0.8	0.1	0.30 0.20	0.25 0.10	2.2 1.8	1.35 1.15	1.3	0.65	2.2 2.0	0.45 0.15	0.25 0.15	0.2	0.2	0.1

OUTLINE VERSION	REFERENCES				EUROPEAN PROJECTION	ISSUE DATE
	IEC	JEDEC	EIAJ			
SOT363			SC-88			97-02-28

Schottky barrier triple diode

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DATA SHEET STATUS

DATA SHEET STATUS	PRODUCT STATUS	DEFINITIONS ⁽¹⁾
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 triple diode

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