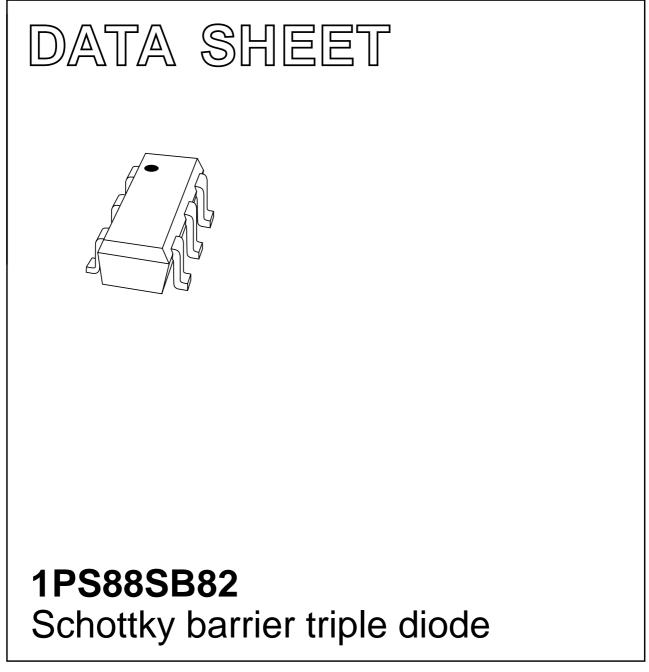
## DISCRETE SEMICONDUCTORS



Product specification Supersedes data of 2001 Feb 16 2003 Apr 11



#### FEATURES

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

#### APPLICATIONS

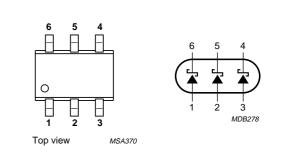
- UHF mixers
- Sampling circuits
- Modulators
- Phase detectors.

#### 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 1		
2	anode 2		
3	anode 3		
4	cathode 3		
5	cathode 2		
6	cathode 1		



Marking code: E1.

Fig.1 Simplified outline (SOT363; SC-88) and symbol.

#### LIMITING VALUES

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

SYMBOL	PARAMETER		MAX.	UNIT
Per diode				
V <sub>R</sub>	continuous reverse voltage	_	15	V
IF	continuous forward voltage		30	mA
T <sub>stg</sub>	storage temperature		+150	°C
Tj	junction temperature	-	125	°C
T <sub>amb</sub>	operating ambient temperature	-65	+150	°C

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### THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
R <sub>th j-a</sub>	thermal resistance from junction to ambient	note 1	416	K/W

#### Note

1. Refer to SOT363 standard mounting conditions.

#### CHARACTERISTICS

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

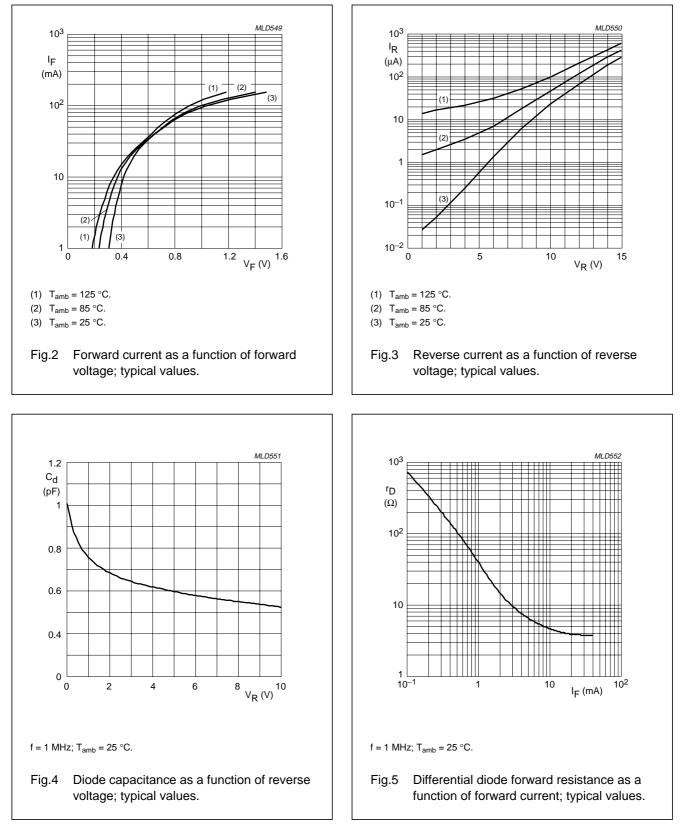
SYMBOL	PARAMETER	CONDITIONS	TYP.	MAX.	UNIT			
Per diode								
V <sub>F</sub>	forward voltage	see note 1 and Fig.2						
		I <sub>F</sub> = 1 mA	-	340	mV			
		I <sub>F</sub> = 30 mA	-	700	mV			
I <sub>R</sub>	reverse current	$V_R = 1$ V; see Fig.3; note 1	_	0.2	μA			
r <sub>D</sub>	diode forward resistance	$f = 1 \text{ kHz}; I_F = 5 \text{ mA}; \text{ see Fig.5}$	12	-	Ω			
C <sub>d</sub>	diode capacitance	V <sub>R</sub> = 0 V; f = 1 MHz; see Fig.4	1	-	pF			

#### Note

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

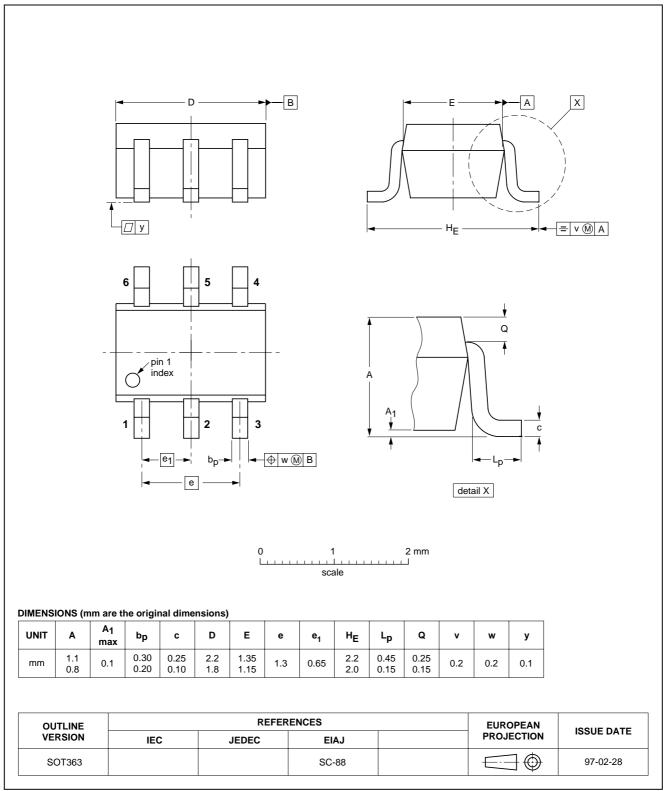
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#### **GRAPHICAL DATA**



#### PACKAGE OUTLINE





SOT363

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#### DATA SHEET STATUS

LEVEL	DATA SHEET STATUS <sup>(1)</sup>	PRODUCT STATUS <sup>(2)(3)</sup>	DEFINITION
I	Objective data	Development	This data sheet contains data from the objective specification for product development. Philips Semiconductors reserves the right to change the specification in any manner without notice.
11	Preliminary data	Qualification	This data sheet contains data from the preliminary specification. Supplementary data will be published at a later date. Philips Semiconductors reserves the right to change the specification without notice, in order to improve the design and supply the best possible product.
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- 2. The product status of the device(s) described in this data sheet may have changed since this data sheet was published. The latest information is available on the Internet at URL W://www.semiconductors.philips.com.
- 3. For data sheets describing multiple type numbers, the highest-level product status determines the data sheet status.

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Printed in The Netherlands

613514/02/pp8

Date of release: 2003 Apr 11

Document order number: 9397 750 11052

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Catalog by System	Three internal (galvanic) isolated silicon epita plastic package. ESD sensitive device, observe	•	OT363 (SC-88) small SMD
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<u>information</u> Distributors Go <u>Here!</u> <u>Models</u>	<ul> <li>Low forward voltage</li> <li>Low diode capacitance</li> <li>Three independent diodes in a small SM</li> </ul>	ID plastic package.	
→ <u>SoC solutions</u>	Applications		
	<ul> <li>UHF mixers</li> <li>Sampling circuits</li> <li>Modulators</li> <li>Phase detectors.</li> </ul>		

# Datasheet

<u>Type number</u>	<u>r</u> <u>Title</u>	Publication release date	Datasheet status	Page count	File size (kB)	Datasheet
1PS88SB82	Schottky barrier triple diode	4/3/2011	Product specification	8	56	Download

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<u>Type</u> number	<u>North</u> <u>American</u> <u>type</u> <u>number</u>	Ordering code (12NC)	Marking/Packing Discretes packing info	Package	<u>Device status</u>	Buy online
1PS88SB82	1PS88SB82 T/R	9340 565 80115	Standard Marking * Reel Pack, SMD	<u>SOT363</u> (UMT6)	Full production	order this -
		9340 565 80165	Standard Marking * Reel Pack, SMD, Large, Reverse	<u>SOT363</u> (UMT6)	Full production	-

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## Support & tools

Spice model of 1PS88SB82

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