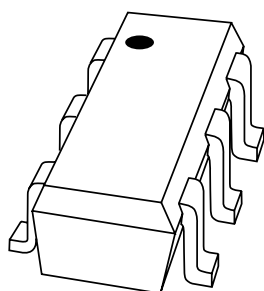


DATA SHEET



1PS88SB48 Schottky barrier diodes

Product specification
Supersedes data of 1999 Apr 26

2002 Nov 07

Schottky barrier diodes

1PS88SB48

FEATURES

- Ultra fast switching speed
- Low forward voltage
- Small SMD package
- Guard ring protected
- Low capacitance.

APPLICATIONS

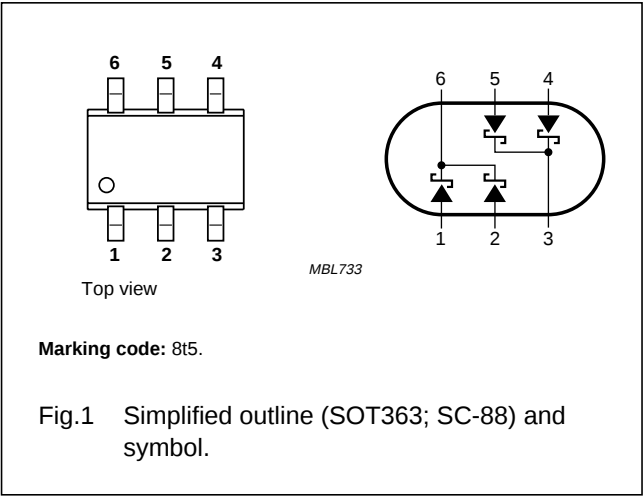
- High speed switching
- Circuit protection
- Voltage clamping.

DESCRIPTION

The 1PS88SB48 consists of two dual Schottky barrier diodes with common cathodes, fabricated in planar technology and encapsulated in the small SOT363 SMD plastic package.

PINNING

PIN	DESCRIPTION
1	anode (a1)
2	anode (a2)
3	common cathode (k1)
4	anode (a3)
5	anode (a4)
6	common cathode (k2)



LIMITING VALUES

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

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
Per diode					
V_R	continuous reverse voltage		–	40	V
I_F	continuous forward current		–	120	mA
I_{FRM}	repetitive peak forward current	$t_p \leq 1\text{ s}; \delta \leq 0.5$	–	120	mA
I_{FSM}	non-repetitive peak forward current	$t_p < 10\text{ ms}$	–	200	mA
T_{stg}	storage temperature		–65	+150	°C
T_j	junction temperature		–	150	°C
T_{amb}	operating ambient temperature		–65	+150	°C

Schottky barrier diodes

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ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MAX.	UNIT
Per diode				
V_F	continuous forward voltage	see Fig.2		
		$I_F = 1\text{ mA}$	380	mV
		$I_F = 10\text{ mA}$	500	mV
		$I_F = 40\text{ mA}$	1	V
I_R	continuous reverse current	$V_R = 30\text{ V}$; note 1; see Fig.3	1	μA
		$V_R = 40\text{ V}$; note 1; see Fig.3	10	μA
C_d	diode capacitance	$V_R = 0$; $f = 1\text{ MHz}$; see Fig.5	5	pF

Note

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

THERMAL CHARACTERISTICS

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

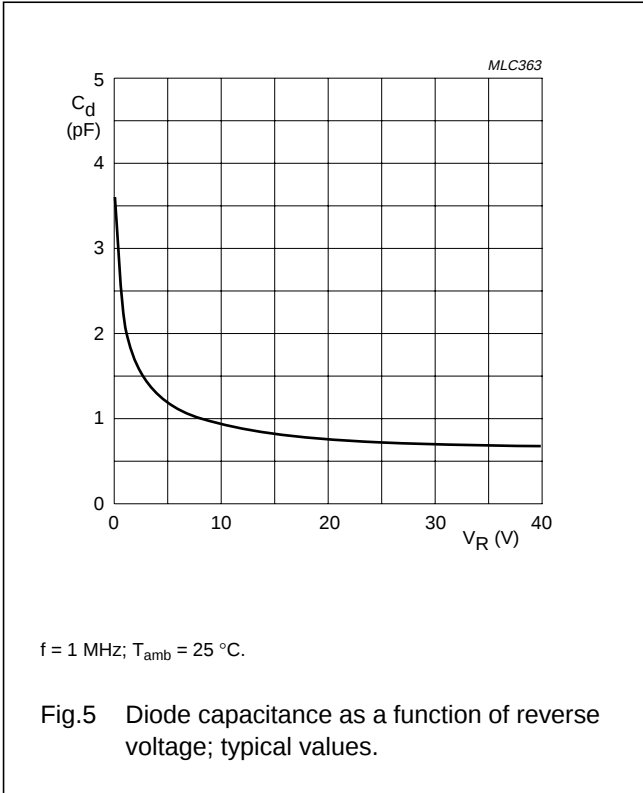
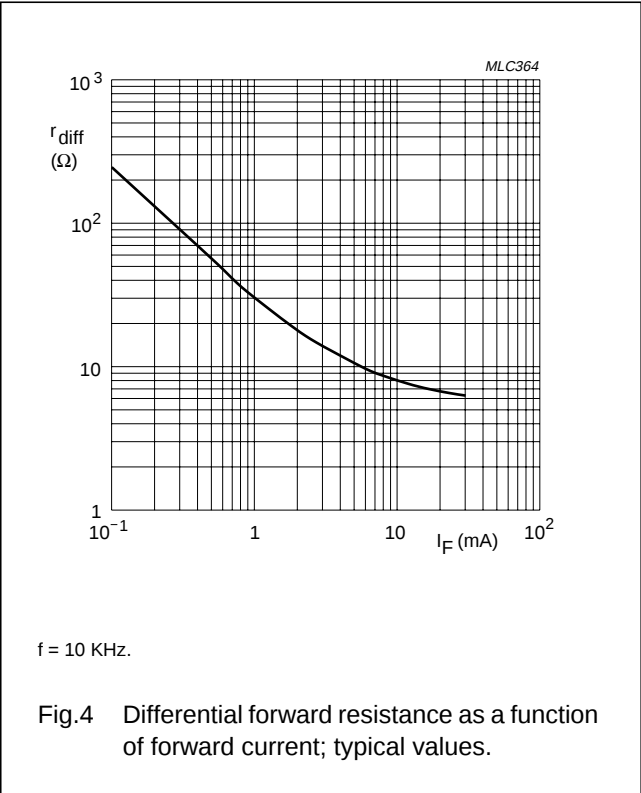
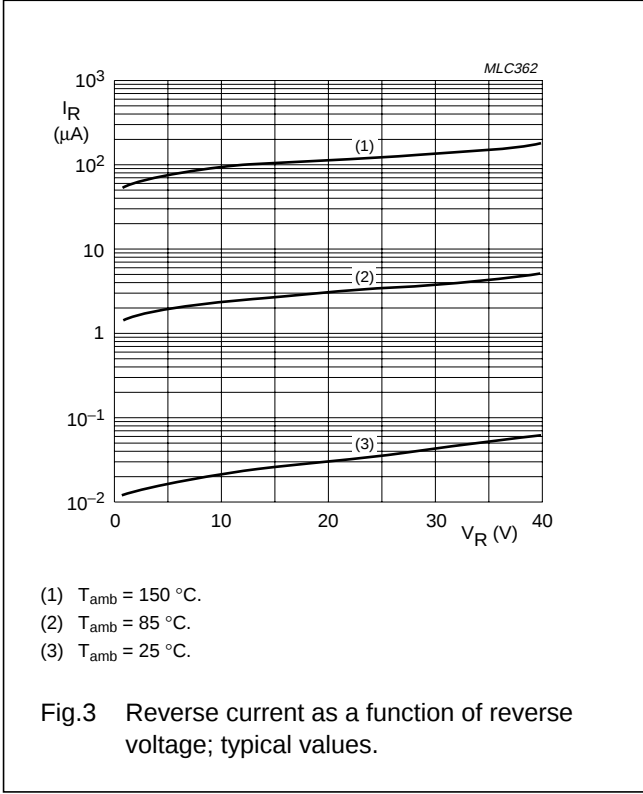
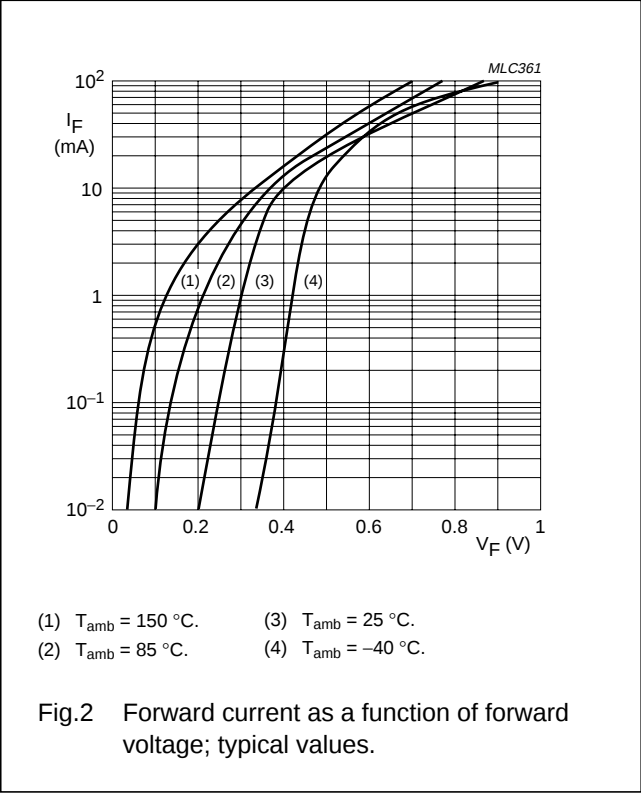
Note

1. Refer to SOT363 (SC-88) standard mounting conditions.

Schottky barrier diodes

1PS88SB48

GRAPHICAL DATA



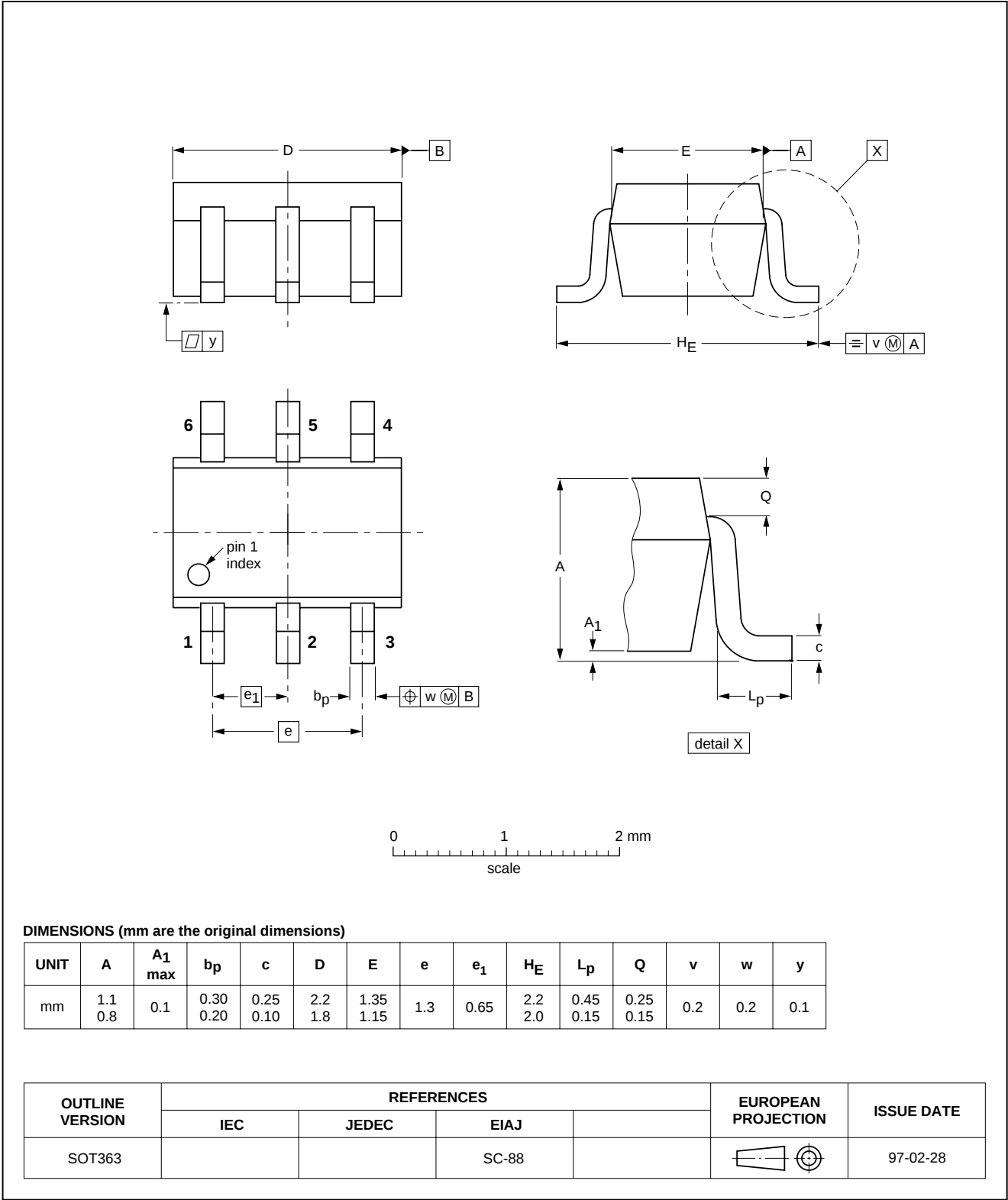
Schottky barrier diodes

1PS88SB48

PACKAGE OUTLINE

Plastic surface mounted package; 6 leads

SOT363



Schottky barrier diodes

1PS88SB48

DATA SHEET STATUS

LEVEL	DATA SHEET STATUS ⁽¹⁾	PRODUCT STATUS ⁽²⁾⁽³⁾	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.
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Schottky barrier diodes

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NOTES

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