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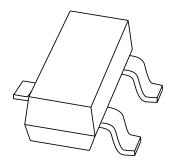
If you have any questions related to the data sheet, please contact our nearest sales office via e-mail or telephone (details via **salesaddresses@nexperia.com**). Thank you for your cooperation and understanding,

Kind regards,

Team Nexperia

DISCRETE SEMICONDUCTORS

DATA SHEET



PMBD353 Schottky barrier double diode

Product data sheet Supersedes data of 1999 May 25 2001 Oct 15



NXP Semiconductors Product data sheet

Schottky barrier double diode

PMBD353

FEATURES

- · Low forward voltage
- Small SMD package
- · Low capacitance.

APPLICATIONS

- UHF mixer
- · Sampling circuits
- Modulators
- Phase detection.

DESCRIPTION

Planar Schottky barrier double diode in a SOT23 small plastic SMD package.

MARKING

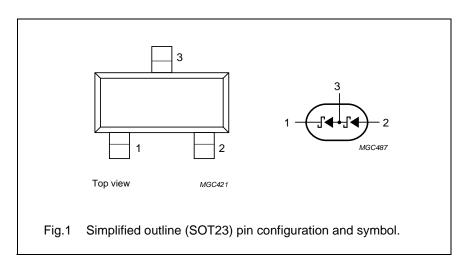
TYPE NUMBER	MARKING CODE ⁽¹⁾	
PMBD353	*4F	

Note

- 1. * = p: Made in Hong Kong.
 - * = t: Made in Malaysia.
 - * = W: Made in China.

PINNING

PIN	DESCRIPTION	
1	cathode k ₁	
2	anode a ₂	
3	common connection a ₁ , k ₂	



LIMITING VALUES

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

SYMBOL	PARAMETER	MIN.	MAX.	UNIT	
Per diode	Per diode				
V_R	continuous reverse voltage	_	4	V	
I _F	continuous forward current	_	30	mA	
T _{stg}	storage temperature	-65	+150	°C	
Tj	junction temperature – 100		100	°C	

NXP Semiconductors Product data sheet

Schottky barrier double diode

PMBD353

ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MAX.	UNIT	
Per diode					
V _F	forward voltage	see Fig.2			
		I _F = 0.1 mA	350	mV	
		I _F = 1 mA	450	mV	
		I _F = 10 mA	600	mV	
I _R	reverse current	V _R = 3 V; note 1; see Fig.3	0.25	μΑ	
C _d	diode capacitance	$f = 1 \text{ MHz}$; $V_R = 0$; see Fig.4	1	pF	

Note

1. Pulse test: t_p = 300 μ s; δ = 0.02.

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
R _{th j-a}	thermal resistance from junction to ambient	note 1	500	K/W

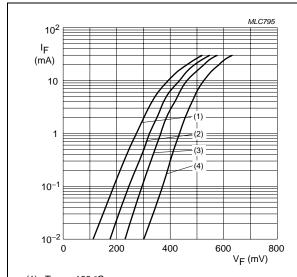
Note

1. Refer to SOT23 standard mounting conditions.

Schottky barrier double diode

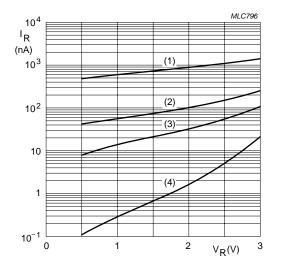
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GRAPHICAL DATA



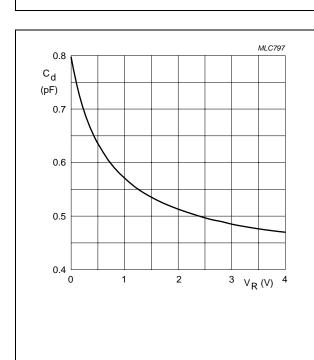
- (1) $T_{amb} = 100 \, ^{\circ}C$.
- (2) $T_{amb} = 60 \, ^{\circ}C$.
- (3) $T_{amb} = 25 \, ^{\circ}C$.
- (4) $T_{amb} = -40 \, ^{\circ}C$.

Fig.2 Forward current as a function of forward voltage; typical values.



- (1) $T_{amb} = 100 \, ^{\circ}C$.
- (2) $T_{amb} = 60 \, ^{\circ}C$.
- (3) $T_{amb} = 25 \,^{\circ}C$.
- (4) $T_{amb} = -40 \, ^{\circ}C$.

Fig.3 Reverse current as a function of reverse voltage; typical values.



 $f = 1 \text{ MHz}; T_{amb} = 25 \,^{\circ}\text{C}.$

Fig.4 Diode capacitance as a function of reverse voltage; typical values.

NXP Semiconductors Product data sheet

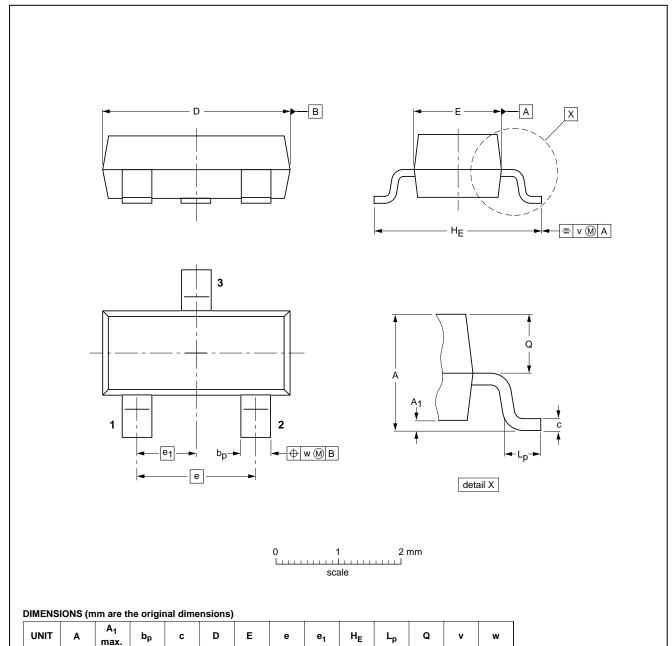
Schottky barrier double diode

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PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT23



OUTLINE		REFERENCES			EUROPEAN	ISSUE DATE
VERSION	IEC	JEDEC	EIAJ		PROJECTION	ISSUE DATE
SOT23		TO-236AB				97-02-28 99-09-13

0.45

0.55

0.1

2001 Oct 15 5

max.

0.48

0.38

0.15

NXP Semiconductors Product data sheet

Schottky barrier double diode

PMBD353

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.

Notes

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NXP Semiconductors

Customer notification

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Contact information

For additional information please visit: http://www.nxp.com

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Printed in The Netherlands 613514/04/pp7 Date of release: 2001 Oct 15 Document order number: 9397 750 08769



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