

Important notice

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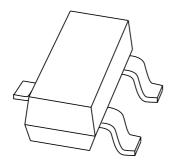
If you have any questions related to the data sheet, please contact our nearest sales office via e-mail or telephone (details via **salesaddresses@nexperia.com**). Thank you for your cooperation and understanding,

Kind regards,

Team Nexperia

DISCRETE SEMICONDUCTORS

DATA SHEET



PMBD354 Schottky barrier double diode

Product data sheet Supersedes data of 2002 Aug 06 2003 Mar 25



NXP Semiconductors Product data sheet

Schottky barrier double diode

PMBD354

FEATURES

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

APPLICATIONS

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

DESCRIPTION

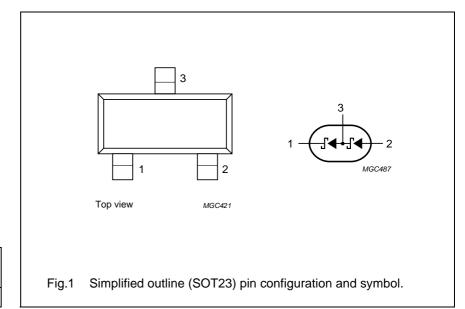
Planar Schottky barrier double diode in a SOT23 small plastic SMD package.

MARKING

TYPE NUMBER	MARKING CODE ⁽¹⁾	
PMBD354	*V8	

PINNING

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



Note

* = p : Made in Hong Kong.
* = t : Made in Malaysia.

* = W : Made in China.

LIMITING VALUES

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

SYMBOL	PARAMETER	MIN.	MAX.	UNIT
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	°C

NXP Semiconductors Product data sheet

Schottky barrier double diode

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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	$f = 1 \text{ MHz}; V_R = 0; \text{ see Fig.4}$	1	pF			
ΔC_d	capacitance matching	$f = 1 \text{ MHz}; V_R = 0$ 0.1 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

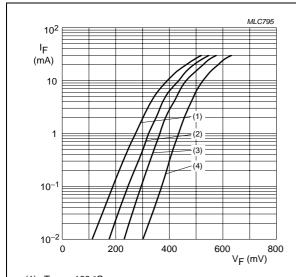
Note

1. Refer to SOT23 standard mounting conditions.

Schottky barrier double diode

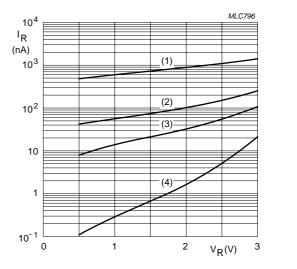
PMBD354

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 °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.

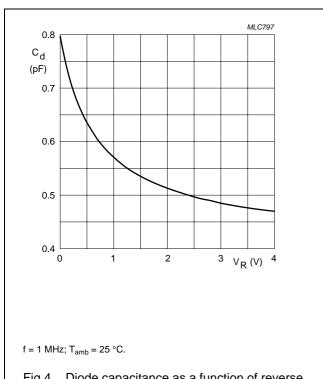


Fig.4 Diode capacitance as a function of reverse voltage; typical values.

NXP Semiconductors Product data sheet

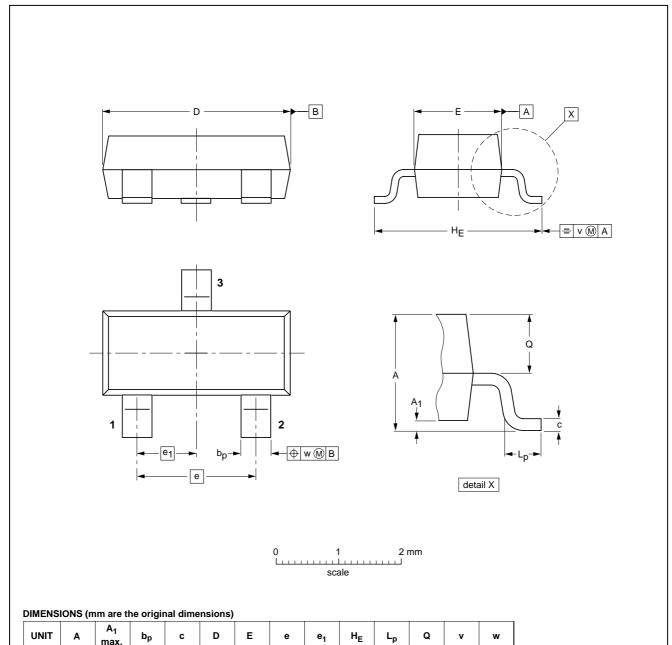
Schottky barrier double diode

PMBD354

PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT23



OUTLINE	REFE		REFERENCES			ISSUE DATE
VERSION	IEC	JEDEC	EIAJ		PROJECTION	1330E DATE
SOT23		TO-236AB				97-02-28 99-09-13

1.9

0.45

0.55

0.1

2003 Mar 25 5

max.

0.48

0.38

0.15

NXP Semiconductors Product data sheet

Schottky barrier double diode

PMBD354

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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- 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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NXP Semiconductors

Customer notification

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Contact information

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

For sales offices addresses send e-mail to: salesaddresses@nxp.com

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