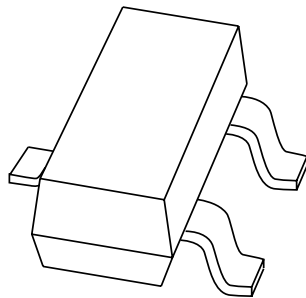


DATA SHEET



PMBD353

Schottky barrier double diode

Product specification
Supersedes data of 1996 Mar 20

1999 May 25

Schottky barrier double diode

PMBD353

FEATURES

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

APPLICATIONS

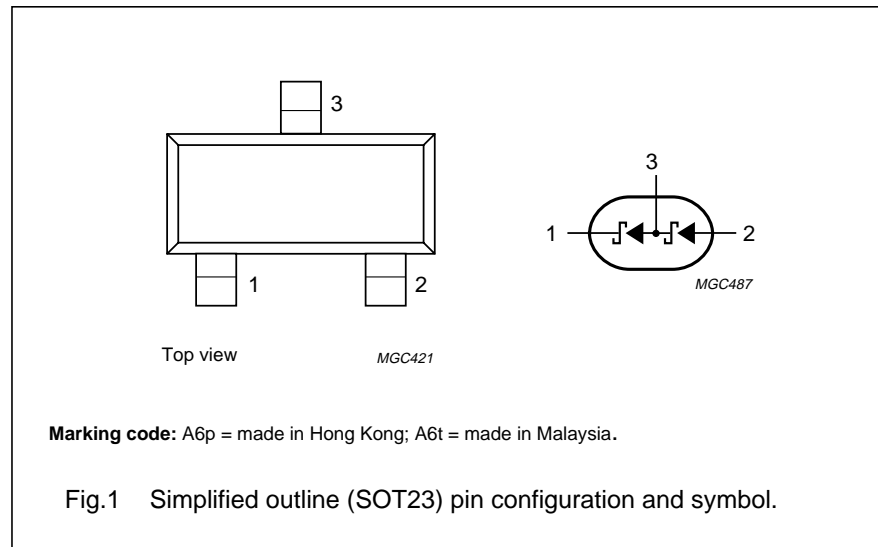
- UHF mixer
- Sampling circuits
- Modulators
- Phase detection.

PINNING

PIN	DESCRIPTION
1	k_1
2	a_2
3	a_1, k_2

DESCRIPTION

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



LIMITING VALUES

In accordance with the Absolute Maximum Rating System (IEC 134).

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
T_j	junction temperature	–	100	°C

Schottky barrier double diode

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ELECTRICAL CHARACTERISTICS $T_{amb} = 25\text{ °C}$ unless otherwise specified.

SYMBOL	PARAMETER	CONDITIONS	MAX.	UNIT
Per diode				
V_F	forward voltage	see Fig.2 $I_F = 0.1\text{ mA}$ $I_F = 1\text{ mA}$ $I_F = 10\text{ mA}$	350 450 600	mV mV mV
I_R	reverse current	$V_R = 3\text{ V}$; note 1; see Fig.3	0.25	μA
C_d	diode capacitance	$f = 1\text{ MHz}$; $V_R = 0$; see Fig.4	1	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	500	K/W

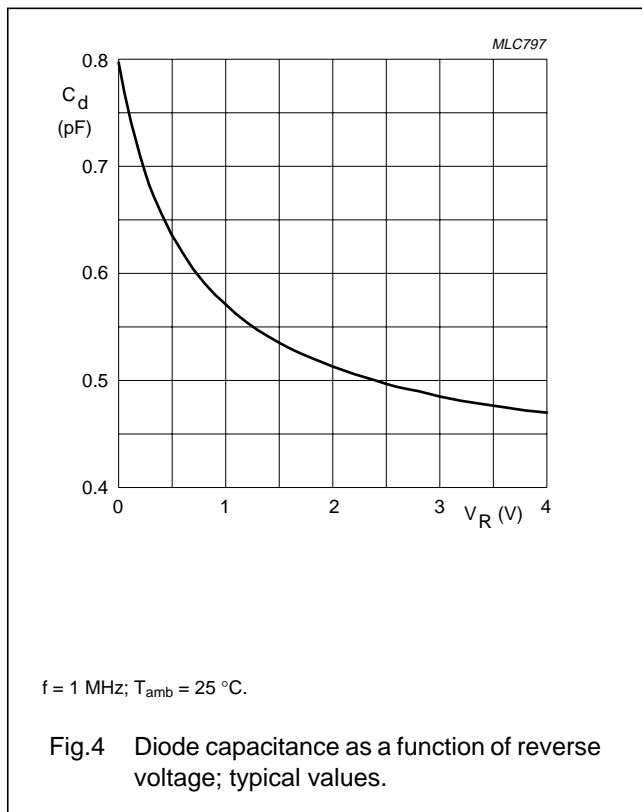
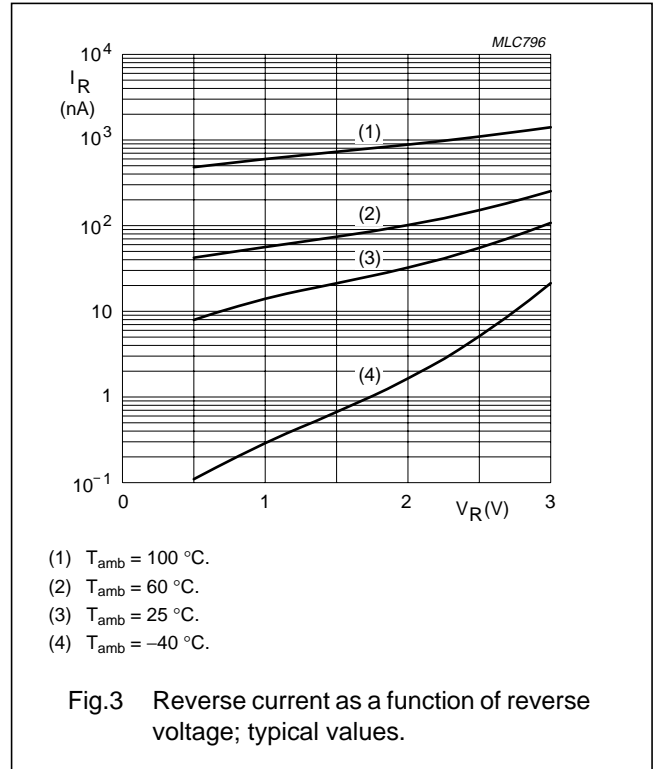
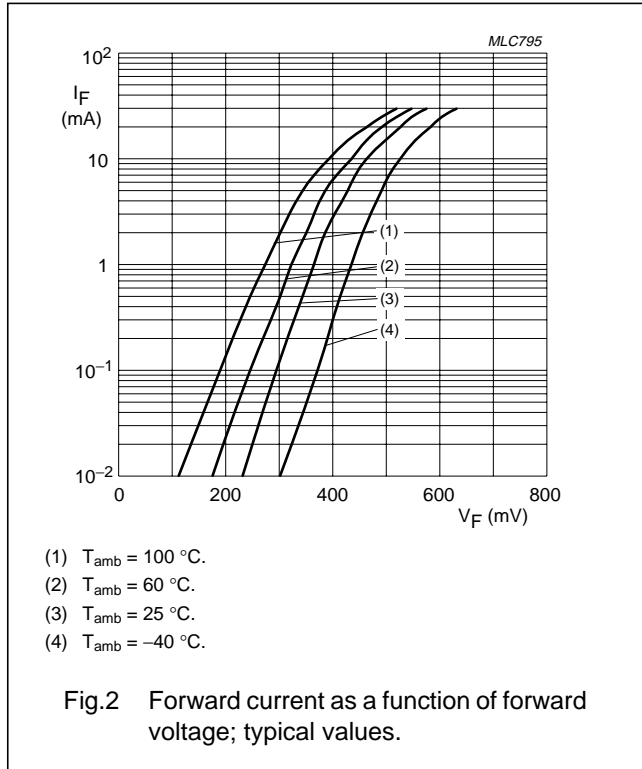
Note

1. Refer to SOT23 standard mounting conditions.

Schottky barrier double diode

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GRAPHICAL DATA



Schottky barrier double diode

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PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT23



DIMENSIONS (mm are the original dimensions)

UNIT	A	A ₁ max.	b _p	c	D	E	e	e ₁	H _E	L _p	Q	v	w
mm	1.1 0.9	0.1	0.48 0.38	0.15 0.09	3.0 2.8	1.4 1.2	1.9	0.95	2.5 2.1	0.45 0.15	0.55 0.45	0.2	0.1

OUTLINE VERSION	REFERENCES				EUROPEAN PROJECTION	ISSUE DATE
	IEC	JEDEC	EIAJ			
SOT23						97-02-28

Schottky barrier double diode**PMBD353**

DEFINITIONS

Data sheet status	
Objective specification	This data sheet contains target or goal specifications for product development.
Preliminary specification	This data sheet contains preliminary data; supplementary data may be published later.
Product specification	This data sheet contains final product specifications.
Limiting values	
Limiting values given are in accordance with the Absolute Maximum Rating System (IEC 134). 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.	
Application information	
Where application information is given, it is advisory and does not form part of the specification.	

LIFE SUPPORT APPLICATIONS

These products are not designed for use in life support appliances, devices, or systems where malfunction of these products can reasonably be expected to result in personal injury. Philips customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Philips for any damages resulting from such improper use or sale.

Schottky barrier double diode

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