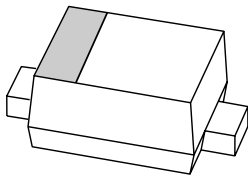


DATA SHEET



BA277-01 Band-switching diode

Product specification
Supersedes data of 2001 Sep 07

2002 Oct 29

Band-switching diode

BA277-01

FEATURES

- Small plastic SMD package
- Continuous reverse voltage: max. 35 V
- Continuous forward current: max. 100 mA
- Low diode capacitance: max. 1.2 pF
- Low diode forward resistance: max. 0.7 Ω .

APPLICATIONS

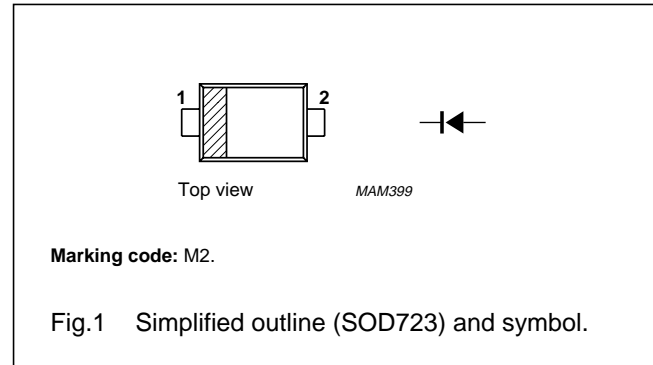
- Low loss band switching in VHF television tuners
- Surface mount band-switching circuits.

DESCRIPTION

Planar high performance band-switching diode in a small SOD723 SMD plastic package.

PINNING

PIN	DESCRIPTION
1	cathode
2	anode



LIMITING VALUES

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

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
V_R	continuous reverse voltage		–	35	V
I_F	continuous forward current		–	100	mA
P_{tot}	total power dissipation	$T_s = 90\text{ }^\circ\text{C}$	–	315	mW
T_{stg}	storage temperature		–65	+150	$^\circ\text{C}$
T_j	junction temperature		–65	+150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MAX.	UNIT
V_F	forward voltage	$I_F = 10\text{ mA}$	1	V
I_R	reverse current	$V_R = 25\text{ V}$	50	nA
		$V_R = 20\text{ V}; T_{amb} = 75\text{ }^\circ\text{C}$	1	μA
C_d	diode capacitance	$f = 1\text{ MHz}; V_R = 6\text{ V};$ see Fig.2	1.2	pF
r_D	diode forward resistance	$I_F = 2\text{ mA}; f = 100\text{ MHz};$ note 1; see Fig.3	0.7	Ω

Note

1. Guaranteed on AQL basis: inspection level S4, AQL 1.0.

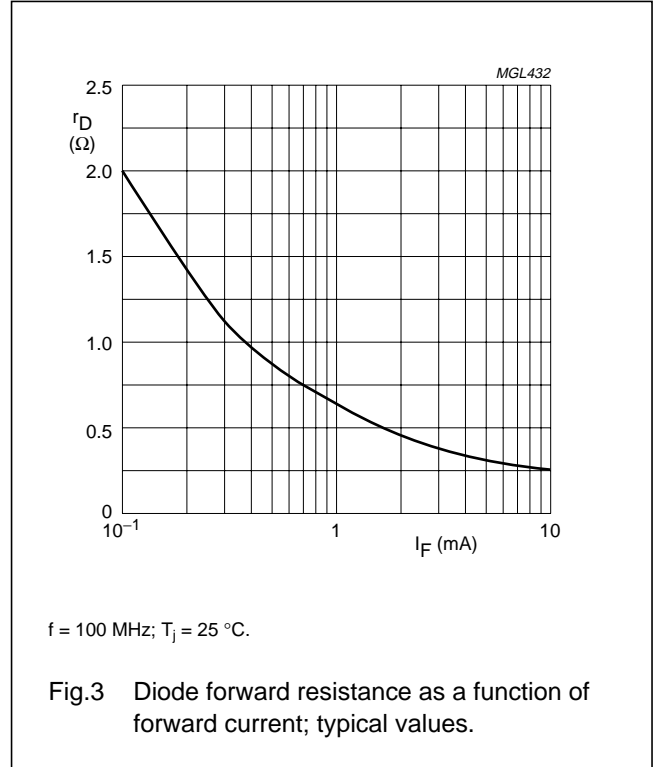
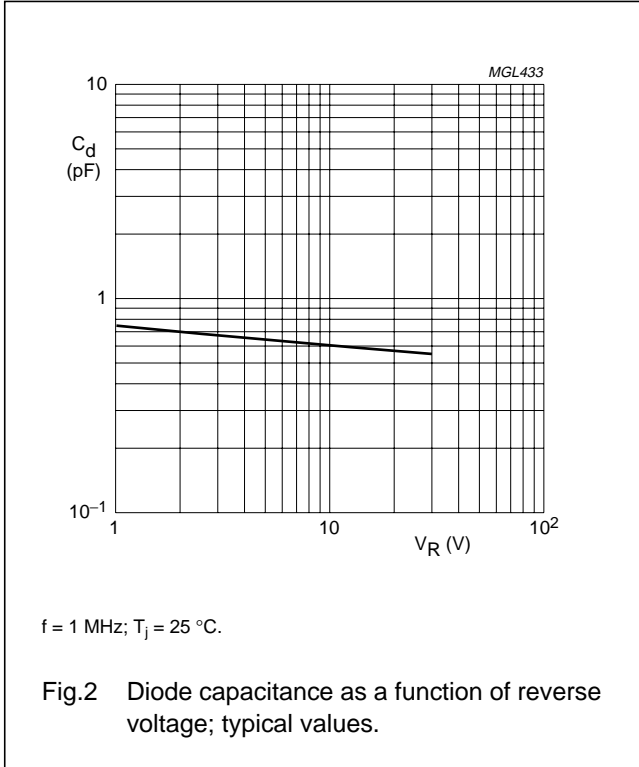
THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
$R_{th\ j-s}$	thermal resistance from junction to soldering-point	190	K/W

Band-switching diode

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GRAPHICAL DATA



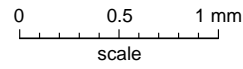
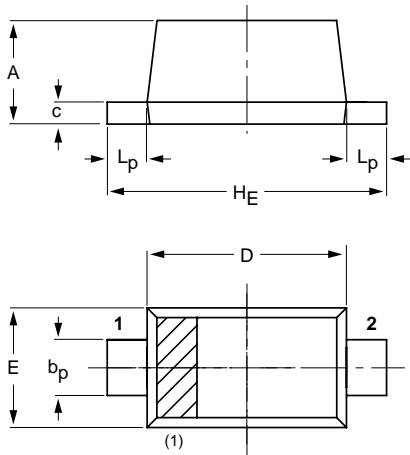
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PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD723



DIMENSIONS (mm are the original dimensions)

UNIT	A	bp	c	D	E	HE	Lp
mm	0.55	0.32	0.15	1.05	0.65	1.45	0.27
	0.49	0.25	0.08	0.95	0.55	1.35	0.13

Note

1. The marking bar indicates the cathode.

OUTLINE VERSION	REFERENCES				EUROPEAN PROJECTION	ISSUE DATE
	IEC	JEDEC	JEITA			
SOD723						02-07-05

Band-switching diode

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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.
II	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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Notes

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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 <http://www.semiconductors.philips.com>.
3. For data sheets describing multiple type numbers, the highest-level product status determines the data sheet status.

DEFINITIONS

Short-form specification — The data in a short-form specification is extracted from a full data sheet with the same type number and title. For detailed information see the relevant data sheet or data handbook.

Limiting values definition — Limiting values given are in accordance with the Absolute Maximum Rating System (IEC 60134). 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.

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Band-switching diode

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NOTES

Band-switching diode

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NOTES

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