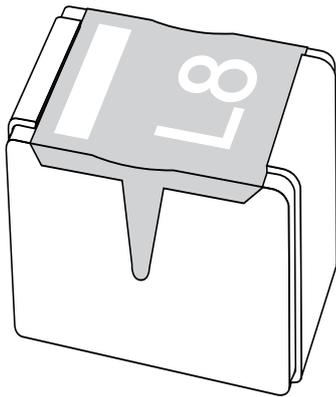


# DATA SHEET



## **BA792** Band-switching diode

Product specification  
Supersedes data of 1996 Mar 13

2002 Jun 12

# Band-switching diode

BA792

## FEATURES

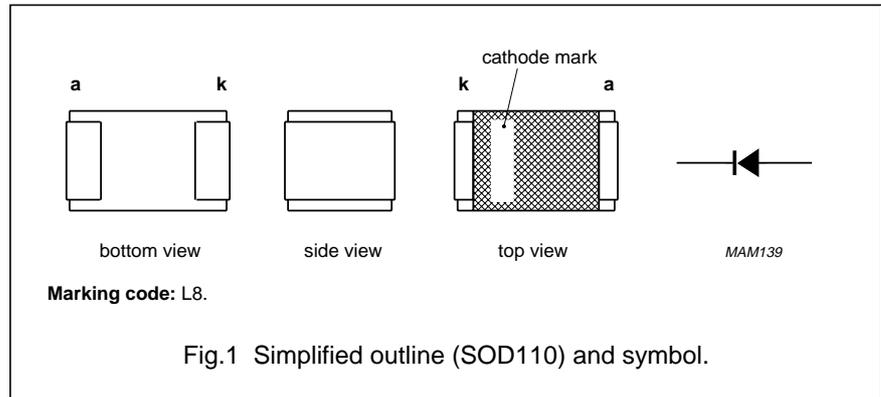
- Ceramic SMD package
- Low diode capacitance:  
max. 1.1 pF
- Low diode forward resistance:  
max. 0.7 Ω.

## APPLICATIONS

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

## DESCRIPTION

Planar, high performance band-switching diode in a SOD110 very small ceramic SMD package.



## LIMITING VALUES

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

SYMBOL	PARAMETER	MIN.	MAX.	UNIT
$V_R$	continuous reverse voltage	–	35	V
$I_F$	continuous forward current	–	100	mA
$T_{stg}$	storage temperature	–65	+150	°C
$T_j$	junction temperature	–	150	°C

## ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MAX.	UNIT
$V_F$	forward voltage	$I_F = 100\text{ mA}$	1.1	V
$I_R$	reverse current	$V_R = 20\text{ V}$	10	nA
		$V_R = 20\text{ V}; T_{amb} = 75\text{ °C}$	1	μA
$C_d$	diode capacitance	$V_R = 3\text{ V}; f = 1\text{ to }100\text{ MHz}; \text{note } 1$	1.1	pF
$r_D$	diode forward resistance	$I_F = 3\text{ mA}; f = 200\text{ MHz}; \text{note } 1$	0.7	Ω

### Note

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

## THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$R_{th\ j-a}$	thermal resistance from junction to ambient	note 1	315	K/W

### Note

1. Device mounted on a printed-circuit board measuring  $11 \times 25 \times 1.6\text{ mm}$ .

# Band-switching diode

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## PACKAGE OUTLINE

Very small ceramic rectangular surface mounted package

SOD110

**DIMENSIONS (mm are the original dimensions)**

UNIT	A max.	D	E	y
mm	1.6	2.10 1.90	1.40 1.10	0.1

OUTLINE VERSION	REFERENCES				EUROPEAN PROJECTION	ISSUE DATE
	IEC	JEDEC	EIAJ			
SOD110						97-04-14

## Band-switching diode

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## DATA SHEET STATUS

DATA SHEET STATUS <sup>(1)</sup>	PRODUCT STATUS <sup>(2)</sup>	DEFINITIONS
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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**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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**NOTES**

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**NOTES**

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