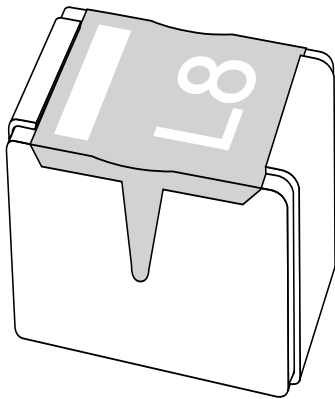


# DATA SHEET



## **BA792** Band-switching diode

Product specification  
Supersedes data of 1996 Mar 13

2002 Jun 12

# Band-switching diode

BA792

## FEATURES

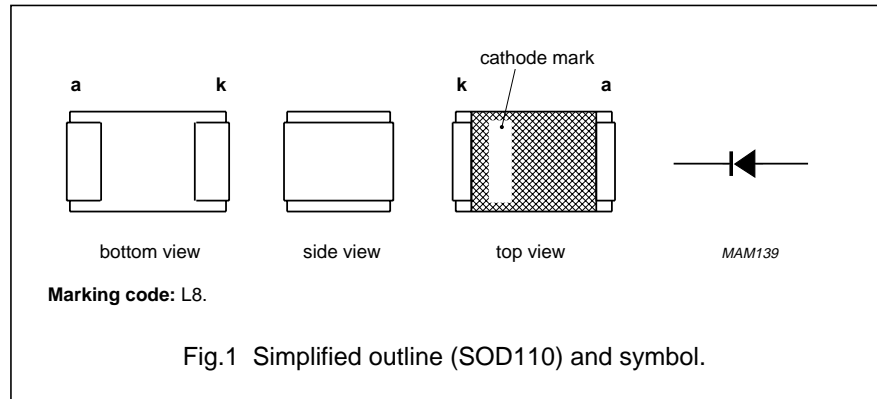
- Ceramic SMD package
- Low diode capacitance:  
max. 1.1 pF
- Low diode forward resistance:  
max. 0.7 Ω.

## 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  $11 \times 25 \times 1.6\text{ mm}$ .

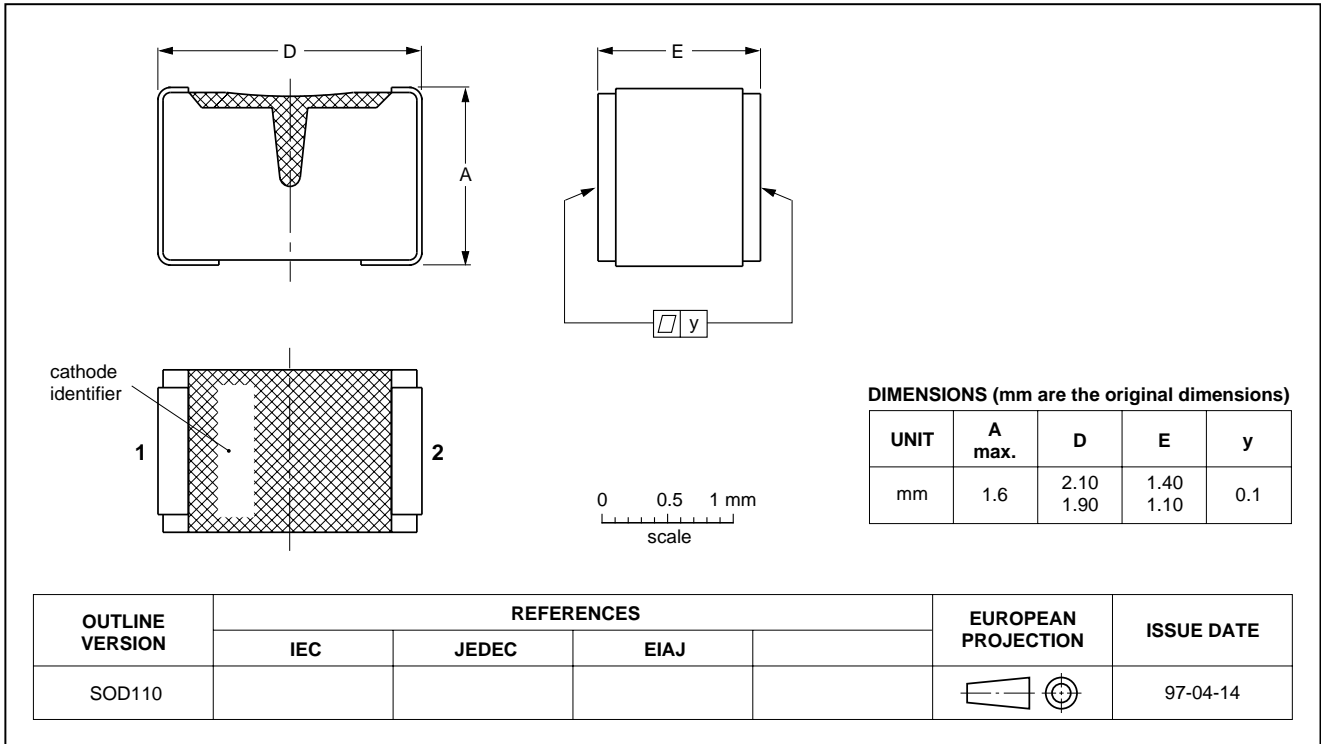
Band-switching diode

BA792

PACKAGE OUTLINE

Very small ceramic rectangular surface mounted package

SOD110



## Band-switching diode

BA792

## 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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Band-switching diode

BA792

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**NOTES**

Band-switching diode

BA792

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**NOTES**

Band-switching diode

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**NOTES**

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