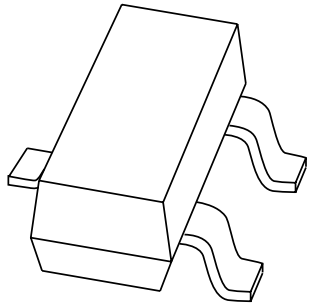


DATA SHEET



BAV73

Dual high-speed switching diode
in common cathode configuration

Preliminary specification
File under Discrete Semiconductors, SC01

1997 May 06

Dual high-speed switching diode in common cathode configuration

BAV73

FEATURES

- Plastic SMD package
- High switching speed
- Common cathode configuration.

APPLICATIONS

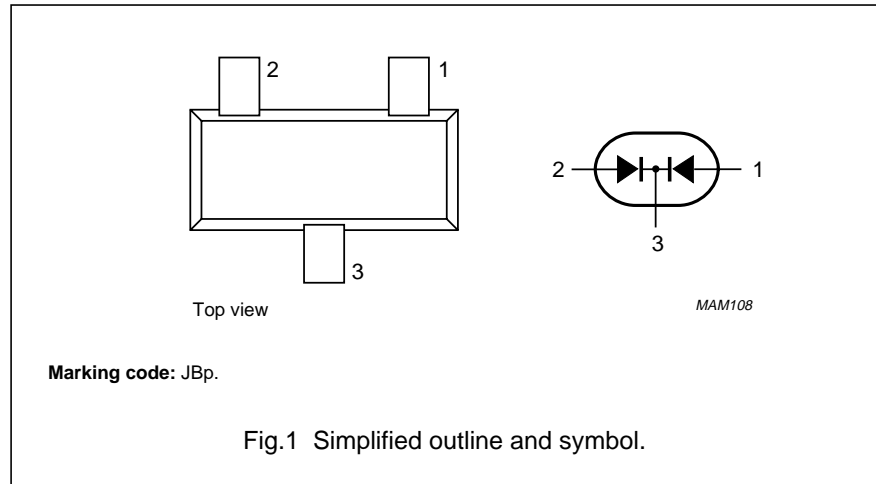
- General.

DESCRIPTION

Dual diode in a common cathode configuration in a small rectangular SMD SOT23 package.

PINNING SOT23

PIN	DESCRIPTION
1	anode 1
2	anode 2
3	common cathode



LIMITING VALUES

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

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
Per diode					
V_{RRM}	repetitive peak reverse voltage		–	250	V
V_R	continuous reverse voltage		–	200	V
$I_{F(AV)}$	average forward current	average over any 20 ms period; $t_p \leq 0.5$ ms	–	200	mA
I_F	continuous forward current		–	200	mA
I_{FRM}	repetitive peak forward current		–	625	mA
I_{FSM}	non-repetitive peak forward current	$t = 1 \mu\text{s}$	–	9	A
		$t = 100 \mu\text{s}$	–	3	A
		$t = 10$ ms	–	1.7	A
P_{tot}	total power dissipation	$T_{amb} = 25 \text{ }^\circ\text{C}$; note 1	–	250	mW
T_{stg}	storage temperature		–65	+150	$^\circ\text{C}$
T_j	junction temperature		–	150	$^\circ\text{C}$

Note

1. Device mounted on an FR4 printed-circuit board.

Dual high-speed switching diode in common cathode configuration

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ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
Per diode					
V_F	forward voltage	$I_F = 100\text{ mA}$	–	1	V
		$I_F = 200\text{ mA}$	–	1.25	V
$V_{(BR)R}$	reverse breakdown voltage	$I_R = 100\text{ }\mu\text{A}$	250	–	V
I_R	reverse current	$V_R = 250\text{ V}$	–	100	nA
		$V_R = 250\text{ V}; T_j = 150\text{ °C}$	–	100	μA
C_d	diode capacitance	$V_R = 0; f = 1\text{ MHz}$	–	5	pF
t_{rr}	reverse recovery time	switching from $I_F = 30\text{ mA}$ to $I_R = 30\text{ mA}$; $R_L = 100\text{ }\Omega$; measured at $I_R = 3\text{ mA}$	–	50	ns

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
$R_{th\ j-s}$	thermal resistance from junction to soldering point	360	K/W

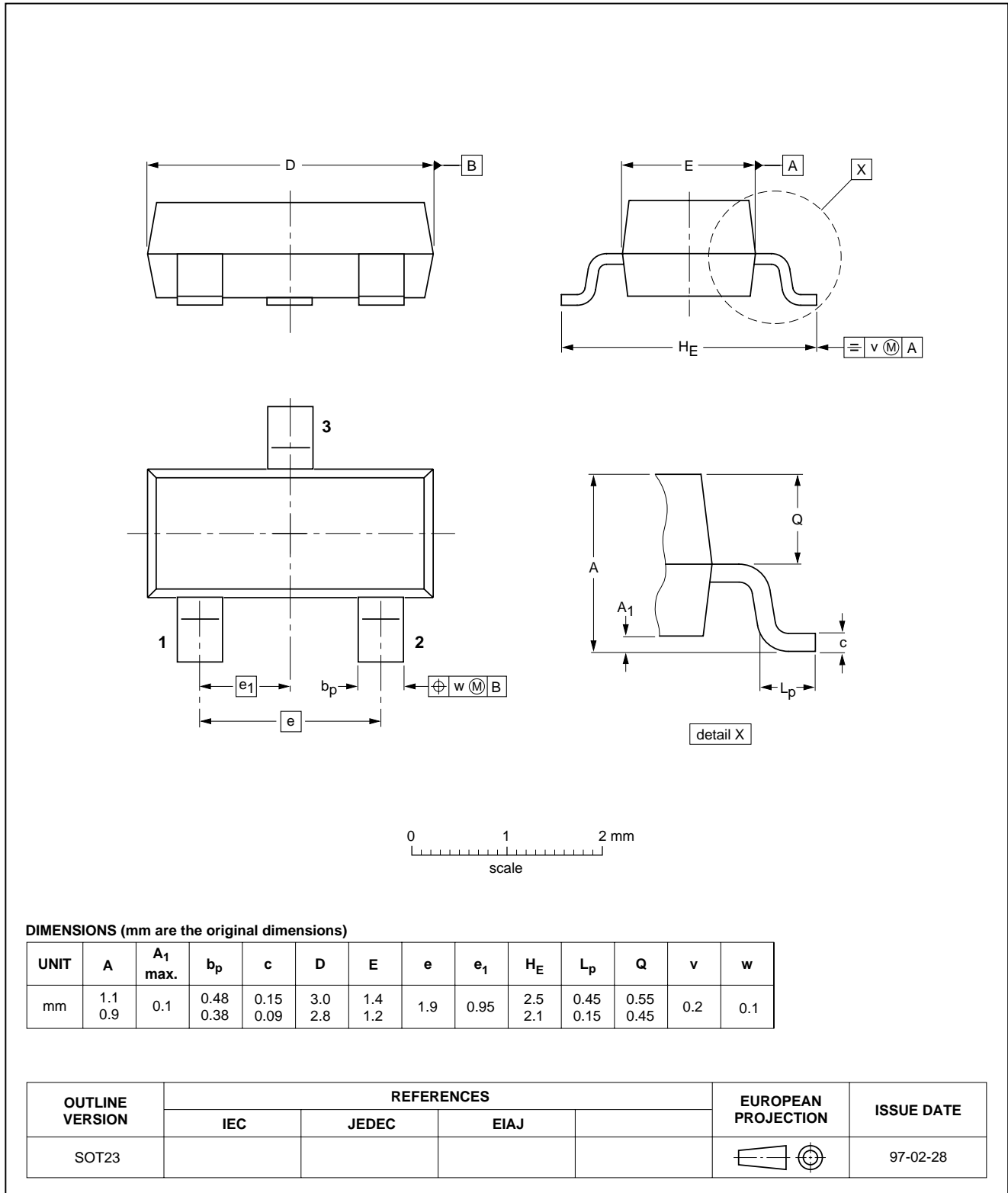
Dual high-speed switching diode in common cathode configuration

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PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT23



Dual high-speed switching diode in common cathode configuration

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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.

Dual high-speed switching diode
in common cathode configuration

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NOTES

Dual high-speed switching diode
in common cathode configuration

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NOTES

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