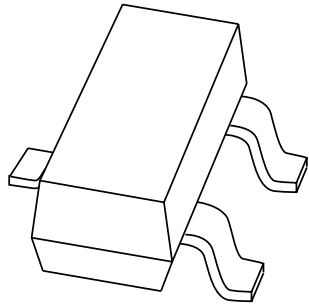


# DATA SHEET



## **BAV73**

Dual high-speed switching diode  
in common cathode configuration

Preliminary specification

1997 May 06

# Dual high-speed switching diode in common cathode configuration

## BAV73

### FEATURES

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

### APPLICATIONS

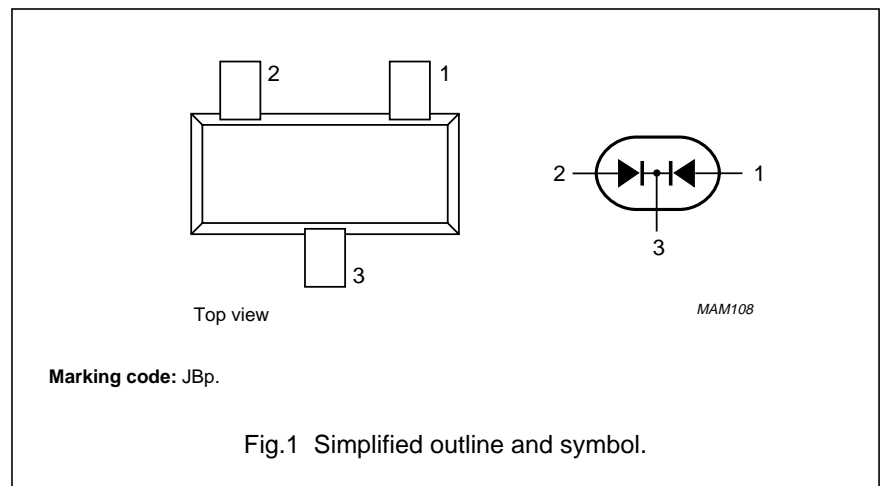
- General.

### 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
<b>Per diode</b>					
$V_{RRM}$	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

BAV73

### ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
<b>Per diode</b>					
$V_F$	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	$\mu\text{A}$
$C_d$	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

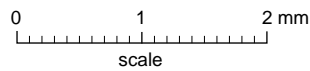
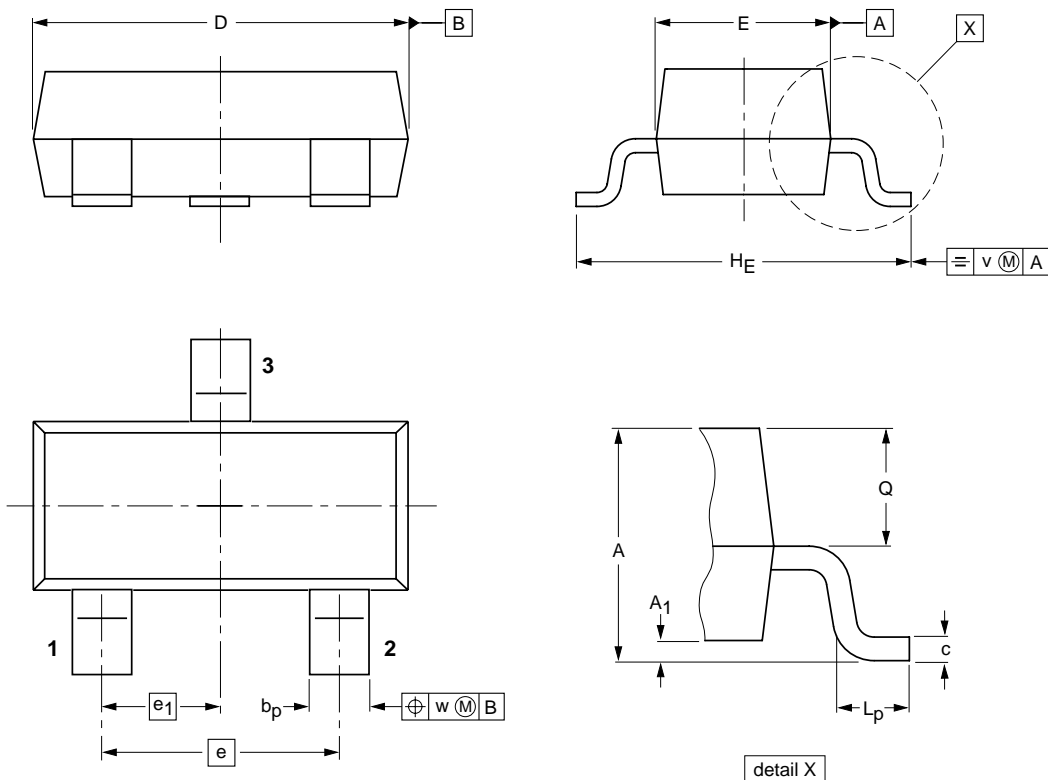
# Dual high-speed switching diode in common cathode configuration

BAV73

## PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT23



DIMENSIONS (mm are the original dimensions)

UNIT	A	A <sub>1</sub> max.	b <sub>p</sub>	c	D	E	e	e <sub>1</sub>	H <sub>E</sub>	L <sub>p</sub>	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

## Dual high-speed switching diode in common cathode configuration

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### DEFINITIONS

<b>Data Sheet Status</b>	
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.
<b>Limiting values</b>	
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.	
<b>Application information</b>	
Where application information is given, it is advisory and does not form part of the specification.	

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Dual high-speed switching diode  
in common cathode configuration

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NOTES

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Dual high-speed switching diode  
in common cathode configuration

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**NOTES**

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