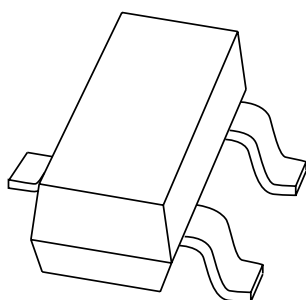


# DATA SHEET



## **BAT721 series** **Schottky barrier (double) diodes**

Product specification  
Supersedes data of 1999 May 06

2001 Oct 12

Schottky barrier (double) diodes

BAT721 series

FEATURES

- Ultra high switching speed
- Low forward voltage
- Guard ring protected
- Small plastic SMD package.

APPLICATIONS

- Ultra high-speed switching
- Voltage clamping
- Protection circuits.

DESCRIPTION

Planar Schottky barrier diodes encapsulated in a SOT23 small plastic SMD package. Single diodes and double diodes with different pinning are available.

MARKING

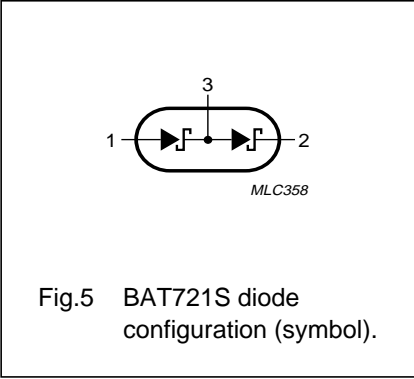
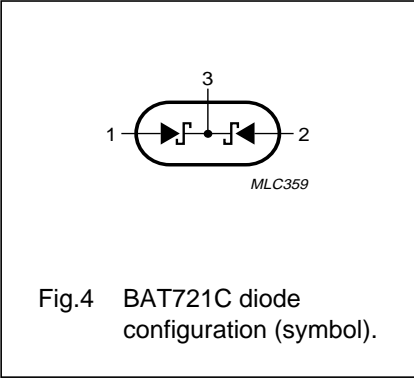
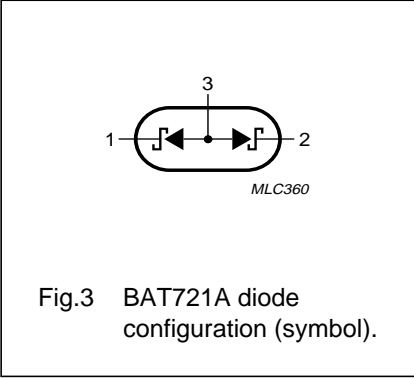
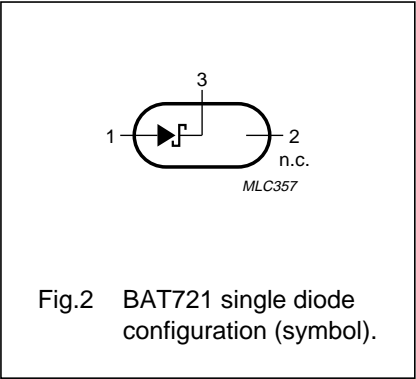
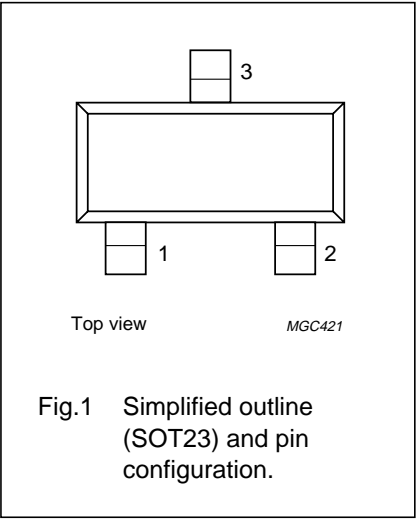
TYPE NUMBER	MARKING CODE <sup>(1)</sup>
BAT721	L7*
BAT721A	L8*
BAT721C	L9*
BAT721S	L0*

Note

1.   \* = p : Made in Hong Kong.  
      \* = t : Made in Malaysia.  
      \* = W: Made in China.

PINNING

PIN	BAT721			
		A	C	S
1	a	k <sub>1</sub>	a <sub>1</sub>	a <sub>1</sub>
2	n.c.	k <sub>2</sub>	a <sub>2</sub>	k <sub>2</sub>
3	k	a <sub>1</sub> , a <sub>2</sub>	k <sub>1</sub> , k <sub>2</sub>	k <sub>1</sub> , a <sub>2</sub>



## Schottky barrier (double) diodes

## BAT721 series

**LIMITING VALUES**

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

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
$V_R$	continuous reverse voltage		–	40	V
$I_F$	continuous forward current		–	200	mA
$I_{FSM}$	non-repetitive peak forward current	$t_p = 8.3$ ms half sinewave; JEDEC method	–	1	A
$T_{stg}$	storage temperature		–65	+150	°C
$T_j$	junction temperature		–	125	°C

**ELECTRICAL CHARACTERISTICS**

$T_j = 25$  °C unless otherwise specified.

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
$V_F$	continuous forward voltage	see Fig.6			
		$I_F = 10$ mA	–	300	mV
		$I_F = 100$ mA	–	420	mV
		$I_F = 200$ mA	–	550	mV
$I_R$	continuous reverse current	$V_R = 30$ V; see Fig.7	–	15	μA
		$V_R = 30$ V; $T_j = 100$ °C; see Fig.7	–	3	mA
$C_d$	diode capacitance	$f = 1$ MHz; $V_R = 0$ ; see Fig.8	40	50	pF

**Note**

1. Pulse test:  $t_p \leq 300$  μs;  $\delta \leq 0.02$ .

**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$R_{th\ j-a}$	thermal resistance from junction to ambient	note 1	500	K/W

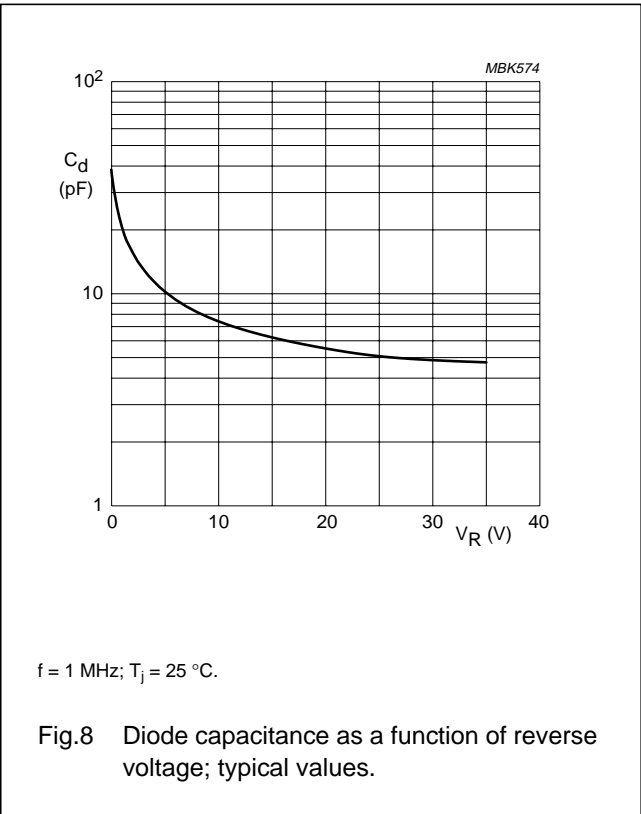
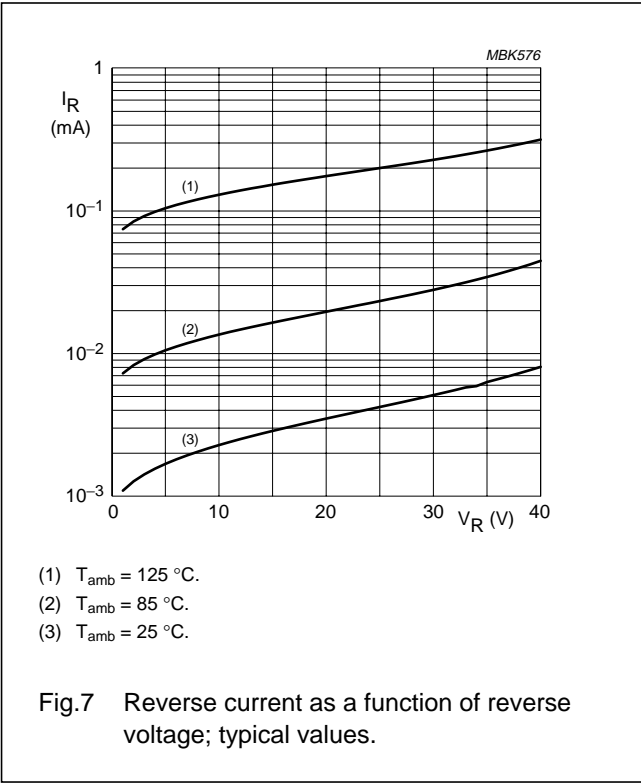
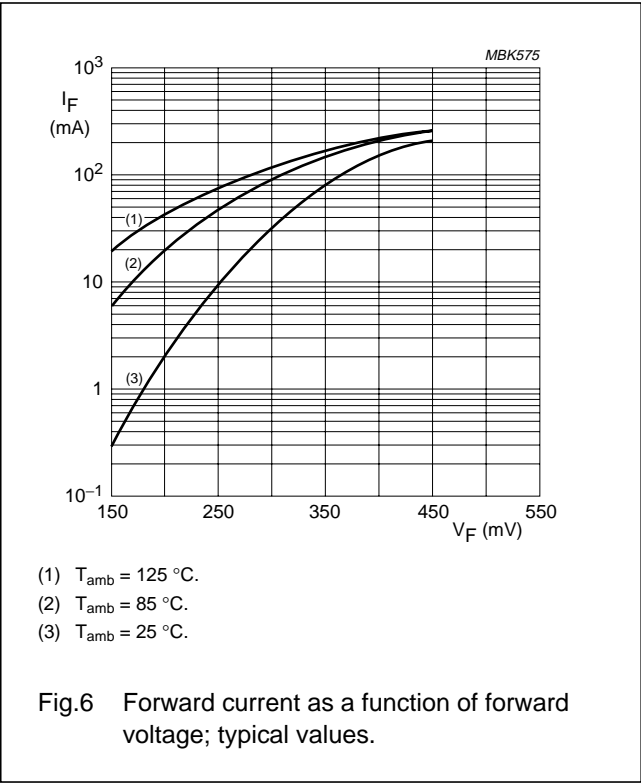
**Note**

1. Refer to SOT23 standard mounting conditions.

Schottky barrier (double) diodes

BAT721 series

GRAPHICAL DATA



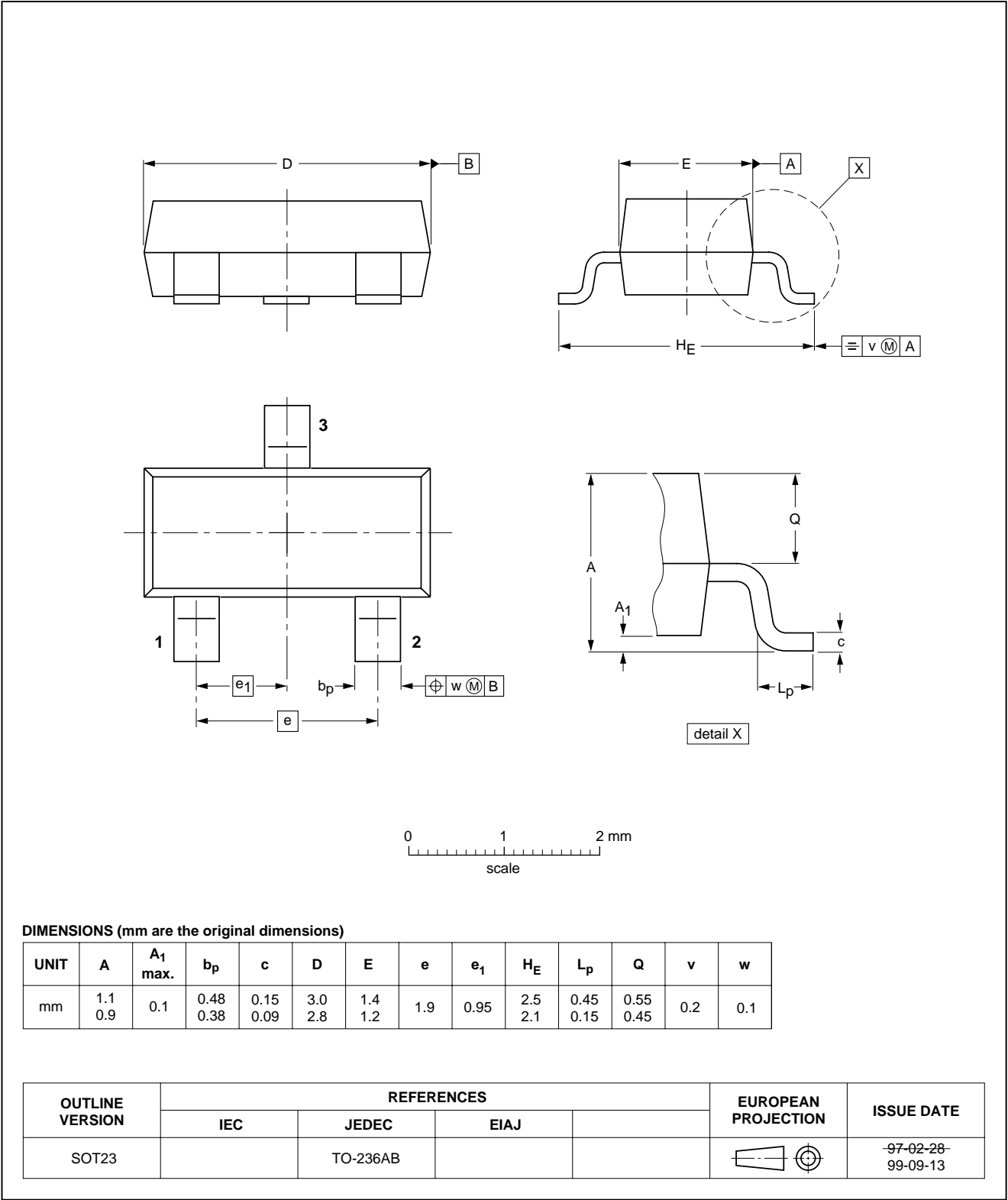
Schottky barrier (double) diodes

BAT721 series

PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT23



## Schottky barrier (double) diodes

## BAT721 series

## 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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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>.

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Schottky barrier (double) diodes

BAT721 series

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**NOTES**

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