

ANTREX Electronics

Electronic Components Sourcing Information

Product Reference Information

Part Number:	BAT17,235
Manufacturer:	Nexperia USA Inc.
Package:	TO-236-3, SC-59, SOT-23-3
Availability:	Please confirm with sales

Product Page:

<https://antrexco.com/product/details/nexperia-usa-inc/bat17-235.html>

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Note:

This PDF includes an ANTREX product reference cover page.

The original manufacturer datasheet follows from the next page.

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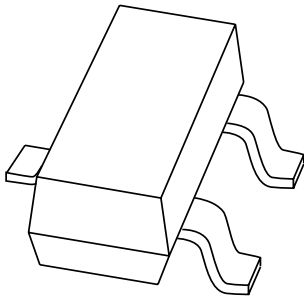
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If you have any questions related to the data sheet, please contact our nearest sales office via e-mail or telephone (details via **salesaddresses@nexperia.com**). Thank you for your cooperation and understanding,

Kind regards,

Team Nexperia

DATA SHEET



BAT17 Schottky barrier diode

Product data sheet
Supersedes data of 1999 May 26

2003 Mar 25

Schottky barrier diode

BAT17

FEATURES

- Low forward voltage
- Small SMD package
- Low capacitance.

APPLICATIONS

- UHF mixer
- Sampling circuits
- Modulators
- Phase detection.

DESCRIPTION

Planar Schottky barrier diode in a small SOT23 plastic SMD package.

MARKING

TYPE NUMBER	MARKING CODE ⁽¹⁾
BAT17	A3*

Note

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

PINNING

PIN	DESCRIPTION
1	anode
2	not connected
3	cathode

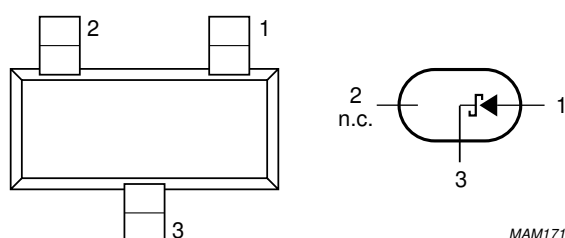


Fig.1 Simplified outline (SOT23) and symbol.

LIMITING VALUES

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

SYMBOL	PARAMETER	MIN.	MAX.	UNIT
V_R	continuous reverse voltage	—	4	V
I_F	continuous forward current	—	30	mA
T_{stg}	storage temperature	−65	+150	°C
T_j	junction temperature	—	100	°C

Schottky barrier diode

BAT17

ELECTRICAL CHARACTERISTICS

$T_{\text{amb}} = 25\text{ }^{\circ}\text{C}$ unless otherwise specified.

SYMBOL	PARAMETER	CONDITIONS	MAX.	UNIT
V_F	forward voltage	see Fig.2		
		$I_F = 0.1\text{ mA}$	350	mV
		$I_F = 1\text{ mA}$	450	mV
		$I_F = 10\text{ mA}$	600	mV
I_R	reverse current	$V_R = 3\text{ V}$; see Fig.3	0.25	μA
		$V_R = 3\text{ V}$; $T_{\text{amb}} = 60\text{ }^{\circ}\text{C}$; see Fig.3	1.25	μA
r_D	diode forward resistance	$f = 1\text{ kHz}$; $I_F = 5\text{ mA}$	15	Ω
C_d	diode capacitance	$f = 1\text{ MHz}$; $V_R = 0$; see Fig.4	1	pF
F	noise figure	$f = 900\text{ MHz}$; note 1	8	dB

Note

1. The local oscillator is adjusted for a diode current of 2 mA. IF amplifier noise $F_{\text{if}} = 1.5\text{ dB}$; $f = 35\text{ MHz}$.

THERMAL CHARACTERISTICS

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

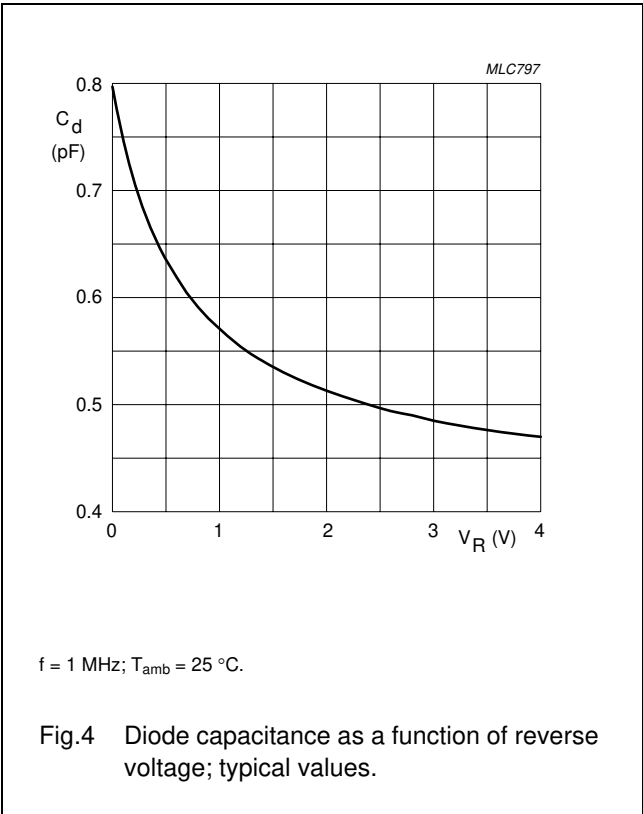
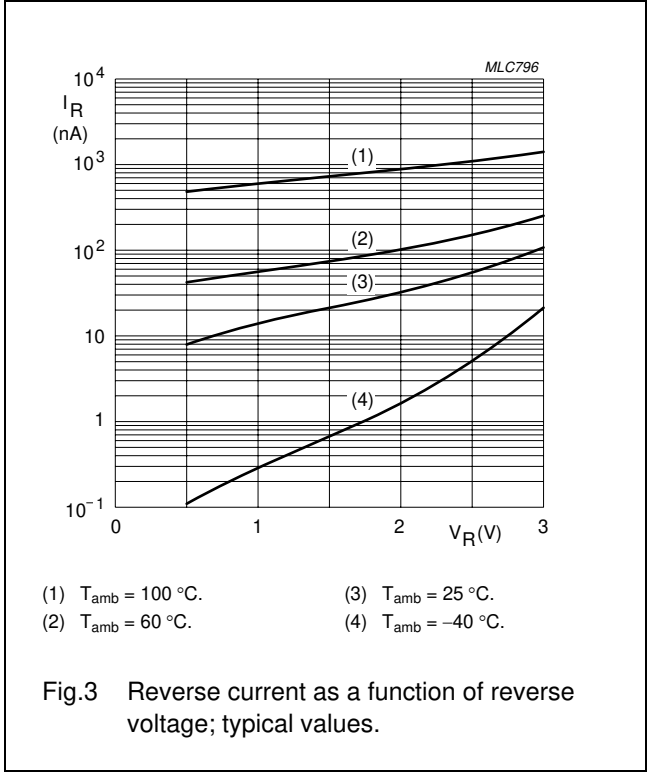
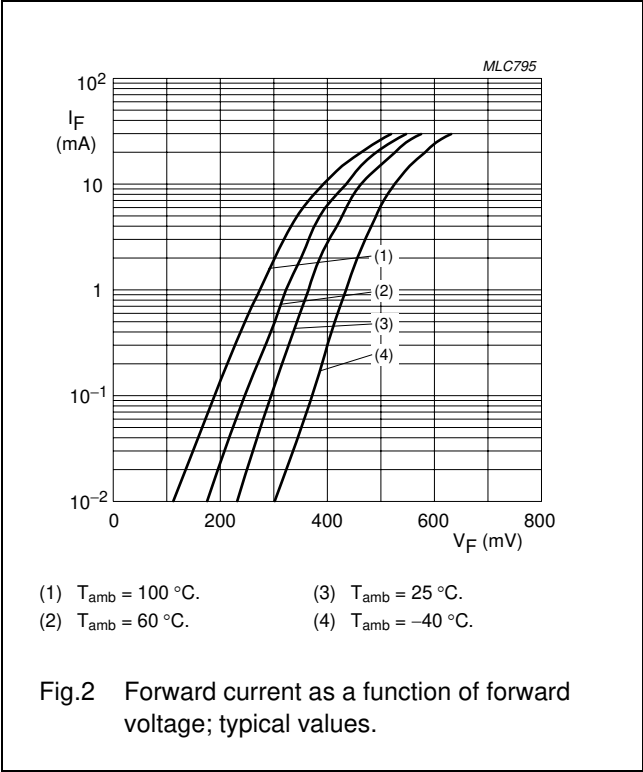
Note

1. Refer to SOT23 standard mounting conditions.

Schottky barrier diode

BAT17

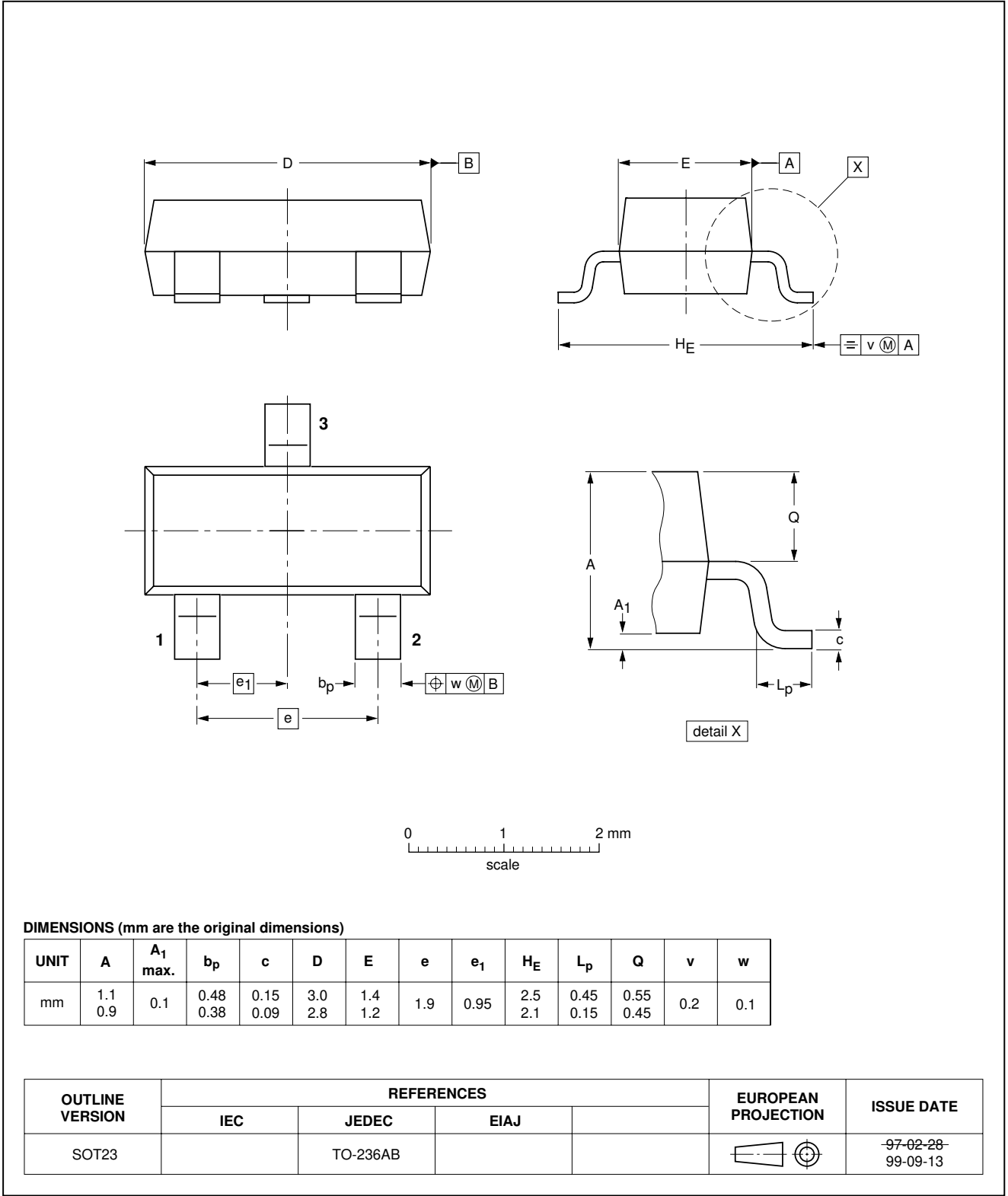
GRAPHICAL DATA



Schottky barrier diode
BAT17

PACKAGE OUTLINE
Plastic surface mounted package; 3 leads

SOT23



Schottky barrier diode

BAT17

DATA SHEET STATUS

DOCUMENT STATUS ⁽¹⁾	PRODUCT STATUS ⁽²⁾	DEFINITION
Objective data sheet	Development	This document contains data from the objective specification for product development.
Preliminary data sheet	Qualification	This document contains data from the preliminary specification.
Product data sheet	Production	This document contains the product specification.

Notes

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2. The product status of device(s) described in this document may have changed since this document was published and may differ in case of multiple devices. The latest product status information is available on the Internet at URL <http://www.nxp.com>.

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NXP Semiconductors

Customer notification

This data sheet was changed to reflect the new company name NXP Semiconductors. No changes were made to the content, except for the legal definitions and disclaimers.

Contact information

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For sales offices addresses send e-mail to: **salesaddresses@nxp.com**

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Printed in The Netherlands

613514/03/pp7

Date of release: 2003 Mar 25

Document order number: 9397 750 10963

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