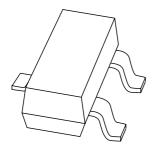
DISCRETE SEMICONDUCTORS

DATA SHEET



BF550PNP medium frequency transistor

Product data sheet Supersedes data of 1999 Apr 15 2004 Jan 16



NXP Semiconductors Product data sheet

PNP medium frequency transistor

BF550

FEATURES

- Low current (max. 25 mA)
- Low voltage (max. 40 V).

APPLICATIONS

Medium frequency applications in thick and thin film circuits.

DESCRIPTION

PNP medium frequency transistor in a SOT23 plastic package.

MARKING

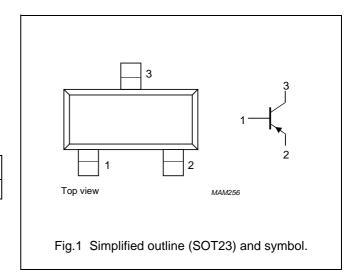
TYPE NUMBER	MARKING CODE(1)	
BF550	LA*	

Note

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

PINNING

PIN	DESCRIPTION
1	base
2	emitter
3	collector



ORDERING INFORMATION

TYPE		PACKAGE			
NUMBER	NAME	DESCRIPTION VERSION			
BF550	_	plastic surface mounted package; 3 leads	SOT23		

LIMITING VALUES

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

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
V _{CBO}	collector-base voltage	open emitter	_	-40	V
V _{CEO}	collector-emitter voltage	open base	_	-40	V
V _{EBO}	emitter-base voltage	open collector	_	-4	V
I _C	collector current (DC)		_	-25	mA
I _{CM}	peak collector current		_	-25	mA
P _{tot}	total power dissipation	T _{amb} ≤ 25 °C; note 1	_	250	mW
T _{stg}	storage temperature		-65	+150	°C
Tj	junction temperature		_	150	°C
T _{amb}	operating ambient temperature		-65	+150	°C

Note

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

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PNP medium frequency transistor

BF550

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
R _{th(j-a)}	thermal resistance from junction to ambient	note 1	500	K/W

Note

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

CHARACTERISTICS

 T_{amb} = 25 °C unless otherwise specified.

SYMBOL	PARAMETER	CONDITIONS	MIN.	TYP.	MAX.	UNIT
I _{CBO}	collector cut-off current	$I_E = 0; V_{CB} = -30 \text{ V}$	_	_	-50	nA
I _{EBO}	emitter cut-off current	$I_C = 0; V_{EB} = -3 \text{ V}$	_	_	-100	nA
h _{FE}	DC current gain	$I_C = -1 \text{ mA}; V_{CE} = -10 \text{ V}$	50	_	_	
V_{BE}	base-emitter voltage	$I_C = -1 \text{ mA}; V_{CE} = -10 \text{ V}$	_	750	_	mV
C _{re}	feedback capacitance	$I_C = -1 \text{ mA}; V_{CB} = -10 \text{ V}; f = 1 \text{ MHz}$	_	0.5	_	pF
f _T	transition frequency	$I_C = -1 \text{ mA}$; $V_{CE} = -10 \text{ V}$; $f = 100 \text{ MHz}$	_	325	_	MHz

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PNP medium frequency transistor

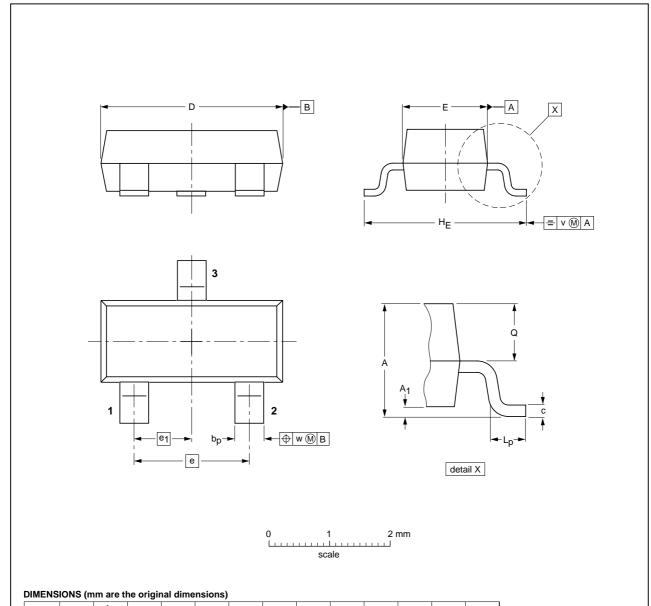
BF550

PACKAGE OUTLINE

UNIT

Plastic surface-mounted package; 3 leads

SOT23



OUTLINE	REFERENCES		EUROPEAN	ISSUE DATE		
VERSION	IEC	JEDEC	JEITA		PROJECTION ISSUE DATE	
SOT23		TO-236AB				-04-11-04 06-03-16

 $\mathbf{H}_{\mathbf{E}}$

 $\mathbf{L}_{\mathbf{p}}$

0.45

0.55

0.1

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bp

0.38

max

0.9

NXP Semiconductors Product data sheet

PNP medium frequency transistor

BF550

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

- 1. Please consult the most recently issued document before initiating or completing a design.
- 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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Customer notification

This data sheet was changed to reflect the new company name NXP Semiconductors, including new legal definitions and disclaimers. No changes were made to the technical content, except for package outline drawings which were updated to the latest version.

Contact information

For additional information please visit: http://www.nxp.com
For sales offices addresses send e-mail to: salesaddresses@nxp.com

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