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Should be replaced with:

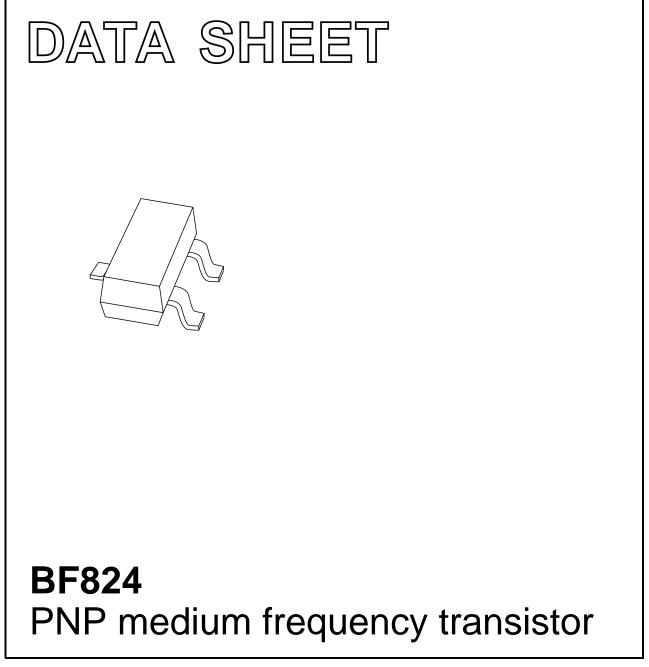
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Kind regards,

Team Nexperia

DISCRETE SEMICONDUCTORS



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



NXP Semiconductors

PNP medium frequency transistor

FEATURES

- Low current (max. 25 mA)
- Low voltage (max. 30 V).

APPLICATIONS

• RF stages in FM front-ends in common base configuration.

DESCRIPTION

PNP medium frequency transistor in a SOT23 plastic package.

MARKING

TYPE NUMBER	MARKING CODE ⁽¹⁾	
BF824	F8*	

NAME

_

Note

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

ORDERING INFORMATION

TYPE NUMBER

BF824

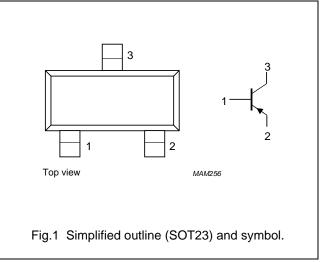
PINNING

PACKAGE

DESCRIPTION

plastic surface mounted package; 3 leads

PIN	DESCRIPTION	
1	base	
2	emitter	
3	collector	



VERSION

SOT23

PNP medium frequency transistor

BF824

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	-	-30	V
V _{CEO}	collector-emitter voltage	open base	_	-30	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	$T_{amb} \le 25 \text{ °C}; \text{ note } 1$	-	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.

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.

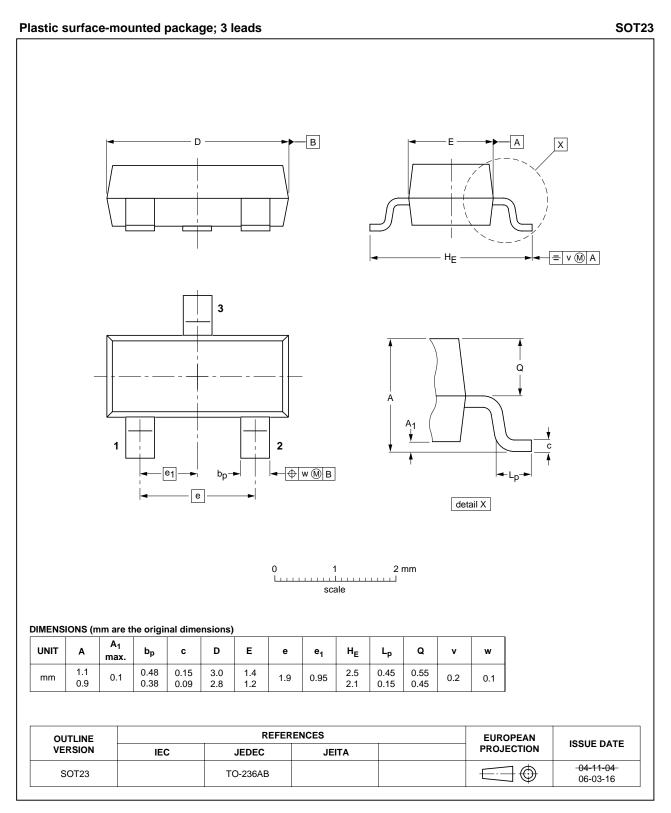
CHARACTERISTICS

 $T_j = 25 \ ^{\circ}C$ unless otherwise specified.

SYMBOL	PARAMETER	CONDITIONS	MIN.	TYP.	MAX.	UNIT
I _{CBO}	collector cut-off current	$I_{E} = 0; V_{CB} = -30 V$	-	-	-50	nA
I _{EBO}	emitter cut-off current	$I_{C} = 0; V_{EB} = -4 V$	-	-	-100	nA
h _{FE}	DC current gain	$I_{C} = -1 \text{ mA}; V_{CE} = -10 \text{ V}$	25	45	-	
		$I_{C} = -4 \text{ mA}; V_{CE} = -10 \text{ V}$	25	50	-	
V _{BE}	base-emitter voltage	$I_{C} = -4 \text{ mA}; V_{CE} = -10 \text{ V}$	-	-	-900	mV
C _{re}	feedback capacitance	$I_{C} = 0; V_{CE} = -10 V; f = 1 MHz$	-	-	0.3	pF
f _T	transition frequency	V _{CE} = -10 V; f = 100 MHz				
		$I_{\rm C} = -1 \mathrm{mA}$	250	350	-	MHz
		$I_{C} = -4 \text{ mA}$	400	450	-	MHz
		$I_{\rm C} = -8 \rm mA$	390	440	-	MHz

PNP medium frequency transistor

PACKAGE OUTLINE



Downloaded from Arrow.com.

BF824

PNP medium frequency transistor

BF824

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.
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NXP Semiconductors

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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