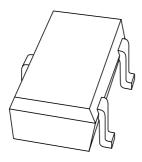
DISCRETE SEMICONDUCTORS

DATA SHEET



2PB1219APNP general purpose transistor

Product data sheet Supersedes data of 1997 Mar 25 1999 Apr 12



PNP general purpose transistor

2PB1219A

FEATURES

- High current (max. 500 mA)
- Low voltage (max. 50 V)
- Low collector-emitter saturation voltage (max. 600 mV).

APPLICATIONS

• General purpose switching and amplification.

DESCRIPTION

PNP transistor in a SOT323; SC70 plastic package. NPN complement: 2PD1820A.

MARKING

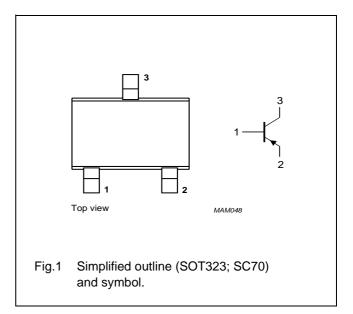
TYPE NUMBER	MARKING CODE ⁽¹⁾
2PB1219AQ	D*Q
2PB1219AR	D*R
2PB1219AS	D*S

Note

* = - : Made in Hong Kong.
 * = t : Made in Malaysia.

PINNING

PIN	DESCRIPTION
1	base
2	emitter
3	collector



LIMITING VALUES

In accordance with the Absolute Maximum Rating System (IEC 134).

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
V _{CBO}	collector-base voltage	open emitter	_	-60	V
V_{CEO}	collector-emitter voltage	open base	-	-50	٧
V _{EBO}	emitter-base voltage	open collector	_	-5	V
I _C	collector current (DC)		-	-500	mA
I _{CM}	peak collector current		-	-1	Α
I _{BM}	peak base current		_	-200	mA
P _{tot}	total power dissipation	T _{amb} ≤ 25 °C; note 1	-	200	mW
T _{stg}	storage temperature		-65	+150	°C
T _j	junction temperature		_	150	°C
T _{amb}	operating ambient temperature		-65	+150	°C

Note

1. Refer to SOT323; SC70 standard mounting conditions.

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THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
R _{th j-a}	thermal resistance from junction to ambient	note 1	625	K/W

Note

1. Refer to SOT323; SC70 standard mounting conditions.

CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
I _{CBO}	collector cut-off current	I _E = 0; V _{CB} = -20 V	_	-100	nA
		I _E = 0; V _{CB} = -20 V; T _j = 150 °C	_	-5	μΑ
I _{EBO}	emitter cut-off current	I _C = 0; V _{EB} = -4 V	_	-100	nA
h _{FE}	DC current gain	$I_C = -150 \text{ mA}; V_{CE} = -10 \text{ V}; \text{ note 1}$			
	2PB1219AQ		85	170	
	2PB1219AR		120	240	
	2PB1219AS		170	340	
h _{FE}	DC current gain	$I_C = -500 \text{ mA}; V_{CE} = -10 \text{ V}; \text{ note 1}$	40	_	
V _{CEsat}	collector-emitter saturation voltage	$I_C = -300 \text{ mA}$; $I_B = -30 \text{ mA}$; note 1	_	-600	mV
V _{BEsat}	base-emitter saturation voltage	IC = -300 mA; IB = -30 mA; note 1	_	-1.5	V
C _c	collector capacitance	$I_E = i_e = 0$; $V_{CB} = -10 \text{ V}$; $f = 1 \text{ MHz}$	_	15	pF
f _T	transition frequency	$I_C = 50 \text{ mA}; V_{CE} = -10 \text{ V};$			
	2PB1219AQ	f = 100 MHz; note 1	100	_	MHz
	2PB1219AR		120	_	MHz
	2PB1219AS		140	_	MHz

Note

1. Pulse test: $t_p \le 300~\mu s;~\delta \le 0.02.$

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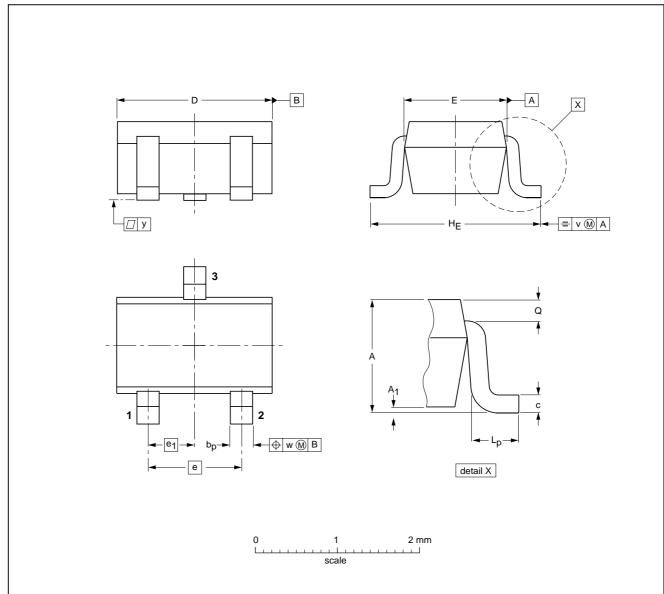
PNP general purpose transistor

2PB1219A

PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT323



DIMENSIONS (mm are the original dimensions)

UN	IIT	Α	A ₁ max	bp	С	D	E	е	e ₁	HE	Lp	Q	v	w
mı	m	1.1 0.8	0.1	0.4 0.3	0.25 0.10	2.2 1.8	1.35 1.15	1.3	0.65	2.2 2.0	0.45 0.15	0.23 0.13	0.2	0.2

OUTLINE		REFERENCES EUROPEA				ISSUE DATE
VERSION	IEC	JEDEC	BBO.		PROJECTION	ISSUE DATE
SOT323			SC-70			97-02-28

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PNP general purpose transistor

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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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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.

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