

PNP general purpose transistor

2PA1576

FEATURES

- Low current (max. 100 mA)
- Low voltage (max. 40 V)
- Low collector capacitance (typ. 2.5 pF).

APPLICATIONS

- General purpose switching and amplification.

DESCRIPTION

PNP transistor in a SC-70 (SOT323) plastic package.
NPN complement: 2PC4081.

MARKING

TYPE NUMBER	MARKING CODE ⁽¹⁾
2PA1576Q	F*Q
2PA1576R	F*R
2PA1576S	F*S

Note

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

LIMITING VALUES

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

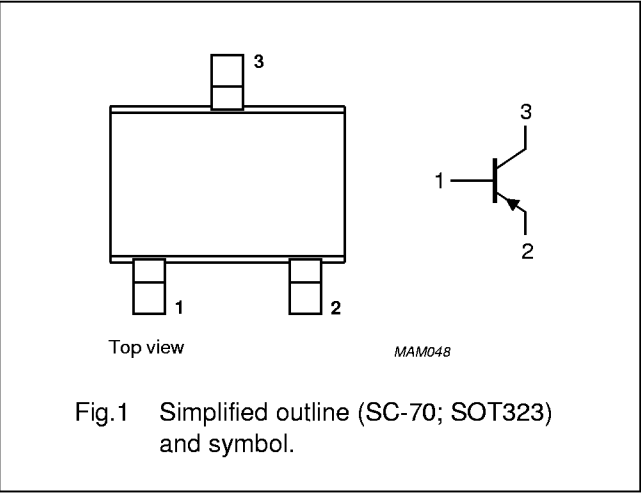
SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
V _{CBO}	collector-base voltage	open emitter	—	−50	V
V _{CEO}	collector-emitter voltage	open base	—	−40	V
V _{EBO}	emitter-base voltage	open collector	—	−5	V
I _C	collector current (DC)		—	−100	mA
I _{CM}	peak collector current		—	−200	mA
I _{BM}	peak base current		—	−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 SC-70 (SOT323) standard mounting conditions.

PINNING

PIN	DESCRIPTION
1	base
2	emitter
3	collector



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THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	CONDITIONS	MAX.	UNIT
$R_{th\ j-a}$	thermal resistance from junction to ambient	note 1	625	K/W

Note

1. Refer to SC-70 (SOT323) standard mounting conditions.

CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN.	TYP.	MAX.	UNIT
I_{CBO}	collector cut-off current	$I_E = 0; V_{CB} = -30\text{ V}$	–	–	–100	nA
		$I_E = 0; V_{CB} = -30\text{ V}; T_j = 150\text{ }^{\circ}\text{C}$	–	–	–5	μA
I_{EBO}	emitter cut-off current	$I_C = 0; V_{EB} = -4\text{ V}$	–	–	–100	nA
h_{FE}	DC current gain	$I_C = -1\text{ mA}; V_{CE} = -6\text{ V}$				
	2PA1576Q		120	–	270	
	2PA1576R		180	–	390	
	2PA1576S		270	–	560	
V_{CEsat}	saturation voltage	$I_C = -50\text{ mA}; I_B = -5\text{ mA}; \text{note 1}$	–	–	–500	mV
C_c	collector capacitance	$I_E = I_E = 0; V_{CB} = -12\text{ V}; f = 1\text{ MHz}$	–	2.5	3.5	pF
f_T	transition frequency	$I_C = -2\text{ mA}; V_{CE} = -12\text{ V}; f = 100\text{ MHz}$	100	–	–	MHz

Note

1. Pulse test: $t_p \leq 300\text{ }\mu\text{s}; \delta \leq 0.02$.

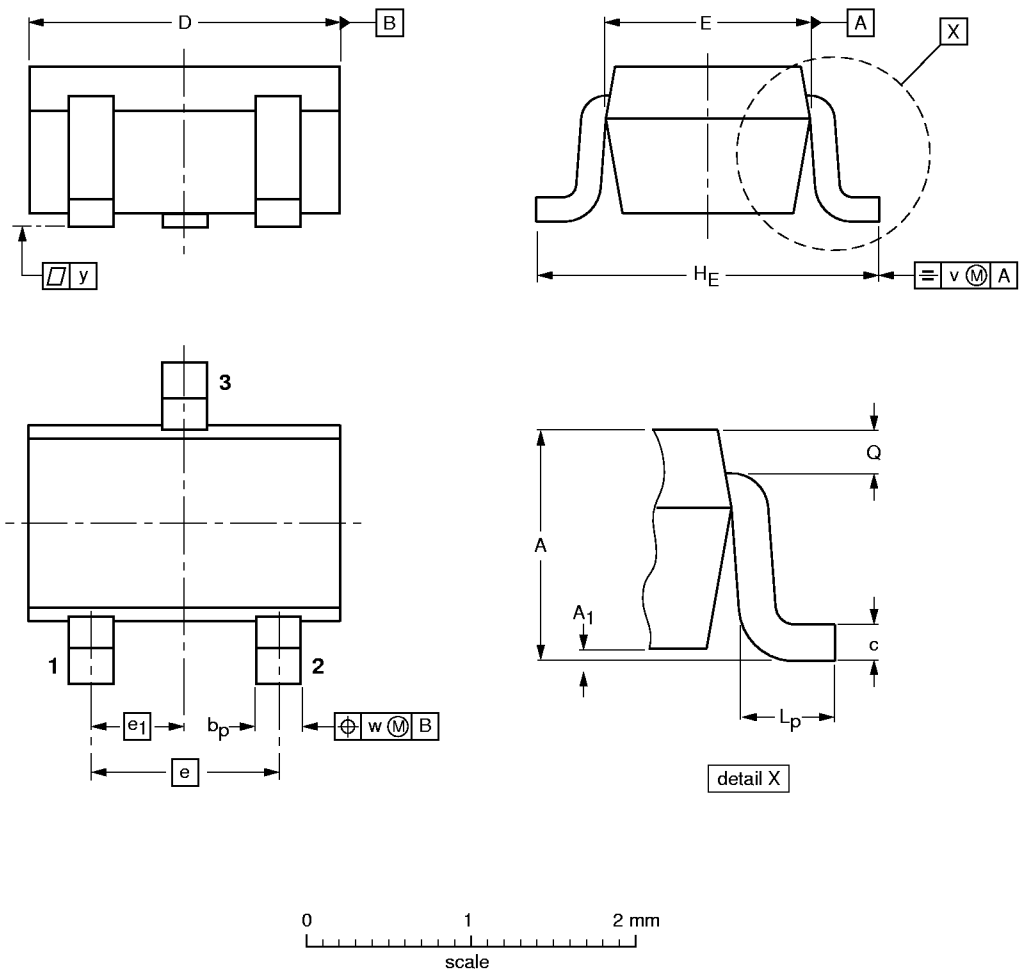
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PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT323



DIMENSIONS (mm are the original dimensions)

UNIT	A	A ₁ max	b _P	c	D	E	e	e ₁	H _E	L _P	Q	v	w
mm	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 VERSION	REFERENCES				EUROPEAN PROJECTION	ISSUE DATE
	IEC	JEDEC	EIAJ			
SOT323			SC-70			97-02-28