2SA1029, 2SA1030

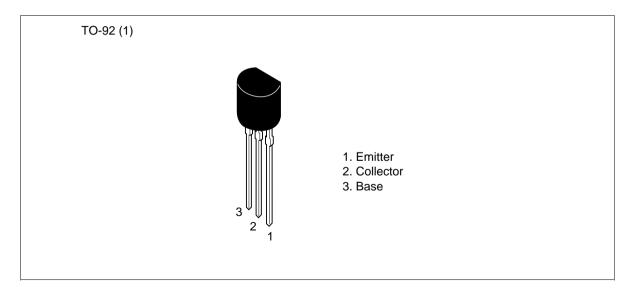
Silicon PNP Epitaxial

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Application

- Low frequency amplifier
- Complementary pair with 2SC458 and 2SC2308

Outline





2SA1029, 2SA1030

Absolute Maximum Ratings $(Ta = 25^{\circ}C)$

Item	Symbol	2SA1029	2SA1030	Unit
Collector to base voltage	V _{CBO}	-30	-55	V
Collector to emitter voltage	V _{CEO}	-30	-50	V
Emitter to base voltage	V _{EBO}	-5	-5	V
Collector current	Ι _c	-100	-100	mA
Emitter current	Ι _Ε	100	100	mA
Collector power dissipation	Pc	300	300	mW
Junction temperature	Tj	150	150	°C
Storage temperature	Tstg	-55 to +150	-55 to +150	°C

Electrical Characteristics (Ta = 25°C)

		2SA1	029		2SA1	2SA1030			
ltem	Symbol	Min	Тур	Мах	Min	Тур	Мах	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	-30	_	_	-55	_	_	V	$I_{c} = -10 \ \mu A, \ I_{E} = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	-30	_	_	-50	_	_	V	$I_{\rm C}$ = -1 mA, $R_{\rm BE}$ = ∞
Emitter to base breakdown voltage	$V_{(BR)EBO}$	-5			-5			V	$I_{\rm E} = -10 \ \mu A, \ I_{\rm C} = 0$
Collector cutoff current	I _{CBO}			-0.5		_	-0.5	μA	$V_{_{CB}} = -18 \text{ V}, \text{ I}_{_{E}} = 0$
Emitter cutoff current	I _{EBO}	—	_	-0.5	—	—	-0.5	μΑ	$V_{\rm EB} = -2 \ V, \ I_{\rm C} = 0$
DC current trnsfer ratio	h_{FE}^{*1}	100	—	500	100		320		$V_{ce} = -12 V,$ $I_c = -2 mA$
Base to emitter voltage	V_{BE}	_	—	-0.8	_		-0.8	V	$V_{ce} = -12 V,$ $I_c = -2 mA$
Collector to emitter saturation voltage	$V_{\text{CE(sat)}}$	—	—	-0.2	—	—	-0.2	V	$I_{c} = -10 \text{ mA},$ $I_{B} = -1 \text{ mA}$
Gain bandwidth product	f _T	200	280	—	200	280	_	MHz	$V_{CB} = -12 V,$ $I_{C} = -2 mA$
Collector output capacitance	Cob	_	3.3	4.0	_	3.3	4.0	pF	$V_{CB} = -10 \text{ V}, I_E = 0,$ f = 1 MHz
Note: 1. The 2SA1029 and 2SA1030 are grouped by h_{FE} as follows.									
В	С		D						
2SA1029 100 to 20	0 160 t	o 320	250 t	o 500					

See characteristic curves of 2SA1031 and 2SA1032.

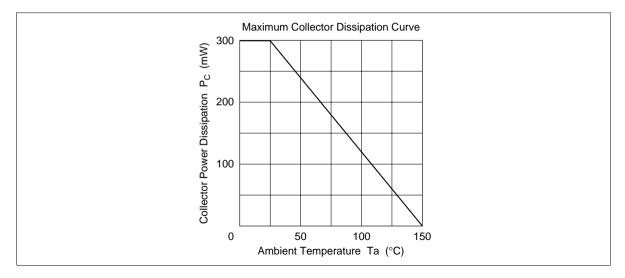
160 to 320

100 to 200

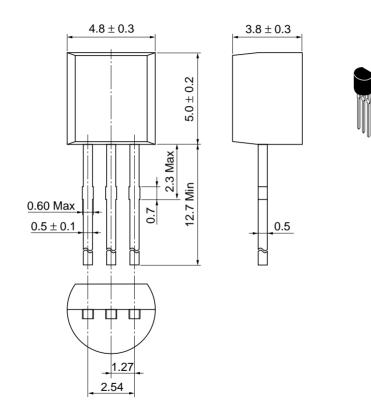
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2SA1030

2SA1029, 2SA1030



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Hitachi Code	TO-92 (1)
JEDEC	Conforms
EIAJ	Conforms
Weight (reference value)	0.25 g

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Semiconductor & Integrated Circuits. Nippon Bldg., 2-6-2, Ohte-machi, Chiyoda-ku, Tokyo 100-0004, Japan Tel: Tokyo (03) 3270-2111 Fax: (03) 3270-5109 NorthAmerica URL http:semiconductor.hitachi.com/ http://www.hitachi-eu.com/hel/ecg Europe http://www.has.hitachi.com.sg/grp3/sicd/index.htm http://www.hitachi.com.tw/E/Product/SICD_Frame.htm Asia (Singapore) Asia (Taiwan) Asia (HongKong) http://www.hitachi.com.hk/eng/bo/grp3/index.htm http://www.hitachi.co.jp/Sicd/indx.htm Japan For further information write to: Hitachi Semiconductor Hitachi Europe GmbH Hitachi Asia Pte. Ltd. (America) Inc. Electronic components Group 16 Collyer Quay #20-00 179 East Tasman Drive, Dornacher Stra§e 3 Hitachi Tower San Jose,CA 95134 D-85622 Feldkirchen, Munich Singapore 049318 Tel: <1> (408) 433-1990 Fax: <1>(408) 433-0223 Germany Tel: 535-2100 Tel: <49> (89) 9 9180-0 Fax: 535-1533 Fax: <49> (89) 9 29 30 00

 Fax: <49> (89) 9 29 30 00
 Hita

 Hitachi Europe Ltd.
 Hita

 Electronic Components Group.
 Taip

 Whitebrook Park
 3F,

 Lower Cookham Road
 Tun

 Maidenhead
 Tel:

 Berkshire SL6 8YA, United Kingdom
 Fax

 Tel: <44> (1628) 585000

 Fax: <44> (1628) 778322

Hitachi Asia Ltd. Taipei Branch Office 3F, Hung Kuo Building. No.167, Tun-Hwa North Road, Taipei (105) Tel: <886> (2) 2718-3666 Fax: <886> (2) 2718-8180

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Hitachi Asia (Hong Kong) Ltd. Group III (Electronic Components) 7/F., North Tower, World Finance Centre, Harbour City, Canton Road, Tsim Sha Tsui, Kowloon, Hong Kong Tel: <852> (2) 735 9218 Fax: <852> (2) 730 0281 Telex: 40815 HITEC HX

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