Silicon PNP Epitaxial

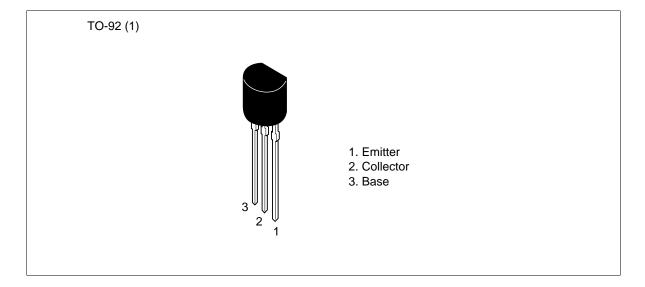
HITACHI

ADE-208-1004A (Z) 2nd. Edition Mar. 2001

Application

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

Outline





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	I _c	-100	-100	mA
Emitter current	I _E	100	100	mA
Collector power dissipation	P _c	300	300	mW
Junction temperature	Tj	150	150	°C
Storage temperature	Tstg	-55 to +150	-55 to +150	°C

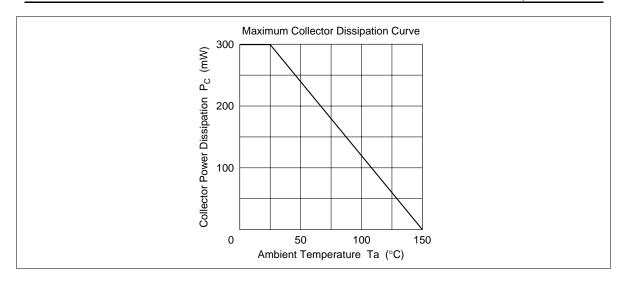
Electrical Characteristics ($Ta = 25^{\circ}C$)

		2SA1	029		2SA1030				
Item	Symbol	Min	Тур	Max	Min	Тур	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	-30	_	_	– 55	_	_	V	$I_{\rm C} = -10 \; \mu \text{A}, \; I_{\rm E} = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	-30	_	_	-50	_	_	V	$I_{\rm C} = -1$ mA, $R_{\rm BE} = \infty$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	-5	_	_	-5	_	_	V	$I_{E} = -10 \mu\text{A}, I_{C} = 0$
Collector cutoff current	I _{CBO}		_	-0.5	_	_	-0.5	μΑ	$V_{CB} = -18 \text{ V}, I_{E} = 0$
Emitter cutoff current	I _{EBO}	_	_	-0.5	_	_	-0.5	μΑ	$V_{EB} = -2 \text{ V}, I_{C} = 0$
DC current trnsfer ratio	h _{FE} *1	100	_	500	100	_	320		$V_{CE} = -12 \text{ V},$ $I_{C} = -2 \text{ mA}$
Base to emitter voltage	V_{BE}	_	_	-0.8	_	_	-0.8	V	$V_{CE} = -12 \text{ V},$ $I_C = -2 \text{ mA}$
Collector to emitter saturation voltage	$V_{\text{CE(sat)}}$	_	_	-0.2	_	_	-0.2	V	$I_{\rm C} = -10 \text{ mA},$ $I_{\rm B} = -1 \text{ mA}$
Gain bandwidth product	f _T	200	280	_	200	280		MHz	$V_{CB} = -12 \text{ V},$ $I_{C} = -2 \text{ mA}$
Collector output capacitance	Cob	_	3.3	4.0	_	3.3	4.0	pF	$V_{CB} = -10 \text{ V}, I_{E} = 0,$ f = 1 MHz

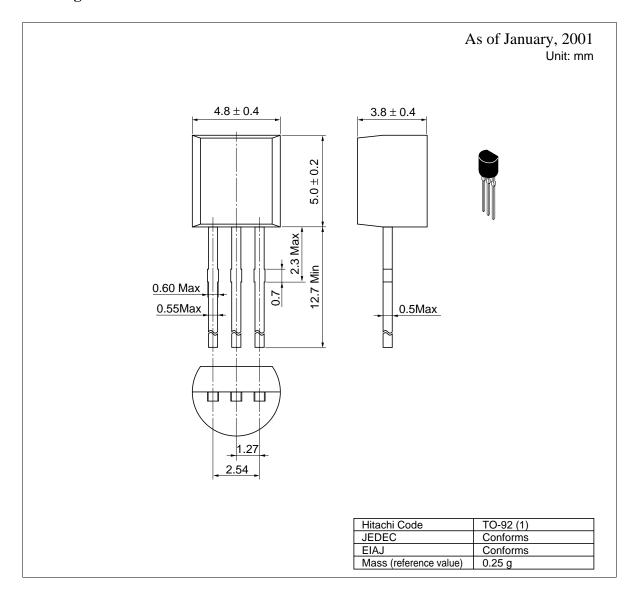
Note: 1. The 2SA1029 and 2SA1030 are grouped by $h_{\rm FE}$ as follows.

	В	С	D
2SA1029	100 to 200	160 to 320	250 to 500
2SA1030	100 to 200	160 to 320	_

See characteristic curves of 2SA1052.



Package Dimensions



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