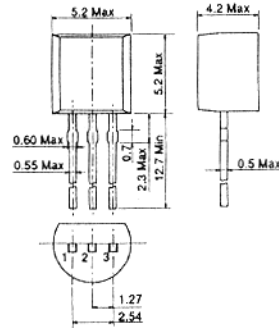


## 2SA1029, 2SA1030

SILICON PNP EPITAXIAL

LOW FREQUENCY AMPLIFIER

Complementary pair with 2SC458 and 2SC2308



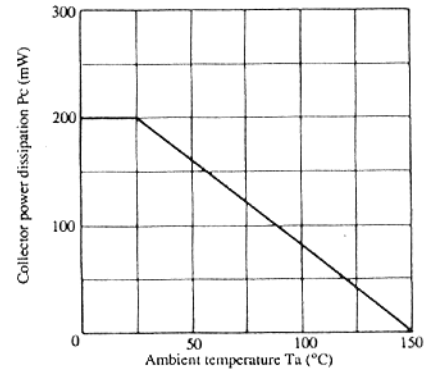
(JEDEC TO-92)

1. Emitter
  2. Collector
  3. Base
- (Dimensions in mm)

### ■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Item	Symbol	2SA1029	2SA1030	Unit
Collector to base voltage	V <sub>CB0</sub>	-30	-55	V
Collector to emitter voltage	V <sub>CE0</sub>	-30	-50	V
Emitter to base voltage	V <sub>EB0</sub>	-5	-5	V
Collector current	I <sub>C</sub>	-100	-100	mA
Emitter current	I <sub>E</sub>	100	100	mA
Collector power dissipation	P <sub>C</sub>	300	300	mW
Junction temperature	T <sub>J</sub>	150	150	°C
Storage temperature	T <sub>stg</sub>	-55 to +150	-55 to +150	°C

### MAXIMUM COLLECTOR DISSIPATION CURVE



### ■ ELECTRICAL CHARACTERISTICS (Ta=25°C)

Item	Symbol	Test Condition	2SA1029			2SA1030			Unit
			min.	typ.	max.	min.	typ.	max.	
Collector to base breakdown voltage	V <sub>(BR)CBO</sub>	I <sub>C</sub> = -10μA, I <sub>E</sub> = 0	-30	—	—	-55	—	—	V
Collector to emitter breakdown voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> = -1mA, R <sub>BE</sub> = ∞	-30	—	—	-50	—	—	V
Emitter to base breakdown voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> = -10μA, I <sub>C</sub> = 0	-5	—	—	-5	—	—	V
Collector cutoff current	I <sub>CBO</sub>	V <sub>CB</sub> = -18V, I <sub>E</sub> = 0	—	—	-0.5	—	—	-0.5	μA
Emitter cutoff current	I <sub>EBO</sub>	V <sub>EB</sub> = -2V, I <sub>C</sub> = 0	—	—	-0.5	—	—	-0.5	μA
DC current transfer ratio	h <sub>FE</sub> *	V <sub>CE</sub> = -12V, I <sub>C</sub> = -2mA	100	—	500	100	—	320	
Base to emitter voltage	V <sub>BE</sub>	V <sub>CE</sub> = -12V, I <sub>C</sub> = -2mA	—	—	-0.8	—	—	-0.8	V
Collector to emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = -10mA, I <sub>B</sub> = -1mA	—	—	-0.2	—	—	-0.2	V
Gain bandwidth product	f <sub>T</sub>	V <sub>CE</sub> = -12V, I <sub>C</sub> = -2mA	200	280	—	200	280	—	MHz
Collector output capacitance	C <sub>ob</sub>	V <sub>CB</sub> = -10V, I <sub>E</sub> = 0, f = 1MHz	—	3.3	4.0	—	3.3	4.0	pF

\* The 2SA1029 and 2SA1030 are grouped by h<sub>FE</sub> as follows.

	B	C	D
2SA1029	100 to 200	160 to 320	250 to 500
2SA1030	100 to 200	160 to 320	—

■ See characteristic curves of 2SA1031 and 2SA1032.