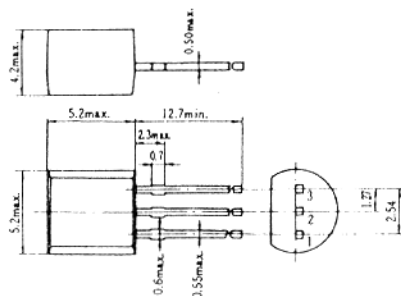


## 2SA1025, 2SA1081, 2SA1082

SILICON PNP EPITAXIAL

LOW FREQUENCY AMPLIFIER

Complementary pair with 2SC2396, 2SC2543 and 2SC2544



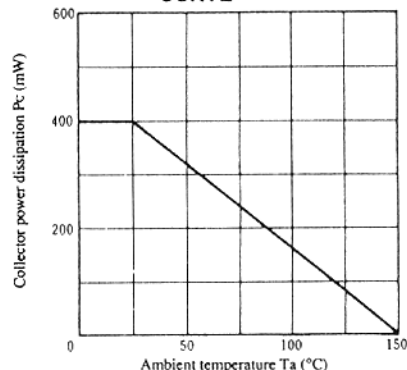
1. Emitter
  2. Collector
  3. Base
- (Dimensions in mm)

(JEDEC TO-92)

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

Item	Symbol	2SA1025	2SA1081	2SA1082	Unit
Collector to base voltage	V <sub>CB0</sub>	-60	-90	-120	V
Collector to emitter voltage	V <sub>CEO</sub>	-60	-90	-120	V
Emitter to base voltage	V <sub>EBO</sub>	-5	-5	-5	V
Collector current	I <sub>C</sub>	-100	-100	-100	mA
Emitter current	I <sub>E</sub>	100	100	100	mA
Collector power dissipation	P <sub>C</sub>	400	400	400	mW
Junction temperature	T <sub>j</sub>	150	150	150	°C
Storage temperature	T <sub>stg</sub>	-55 to +150	-55 to +150	-55 to +150	°C

### MAXIMUM COLLECTOR DISSIPATION CURVE



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

Item	Symbol	Test Condition	2SA1025			2SA1081			2SA1082			Unit
			min.	typ.	max.	min.	typ.	max.	min.	typ.	max.	
Collector to base break-down voltage	V <sub>(BR)CBO</sub>	I <sub>C</sub> = -10μA, I <sub>E</sub> = 0	-60	—	—	-90	—	—	-120	—	—	V
Collector to emitter breakdown voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> = -1mA, R <sub>BE</sub> = ∞	-60	—	—	-90	—	—	-120	—	—	V
Emitter to base breakdown voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> = -10μA, I <sub>C</sub> = 0	-5	—	—	-5	—	—	-5	—	—	V
Collector cutoff current	I <sub>CBO</sub>	V <sub>CB</sub> = -50V, I <sub>E</sub> = 0	—	—	-0.1	—	—	-0.1	—	—	-0.1	μA
Emitter cutoff current	I <sub>EBO</sub>	V <sub>EB</sub> = -2V, I <sub>C</sub> = 0	—	—	-0.1	—	—	-0.1	—	—	-0.1	μA
DC current transfer ratio	h <sub>FE</sub> *	V <sub>CE</sub> = -12V, I <sub>C</sub> = -2mA	250	—	800	250	—	800	250	—	800	
Collector to emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = -10mA, I <sub>B</sub> = -1mA	—	—	-0.2	—	—	-0.2	—	—	-0.2	V
Base to emitter voltage	V <sub>BE</sub>	V <sub>CE</sub> = -12V, I <sub>C</sub> = -2mA	—	-0.6	—	—	-0.6	—	—	-0.6	—	V
Gain bandwidth product	f <sub>T</sub>	V <sub>CE</sub> = -12V, I <sub>C</sub> = -2mA	—	90	—	—	90	—	—	90	—	MHz
Collector output capacitance	C <sub>ob</sub>	V <sub>CB</sub> = -10V, I <sub>E</sub> = 0, f = 1MHz	—	3.5	—	—	3.5	—	—	3.5	—	pF

D	E
250 to 500	400 to 800