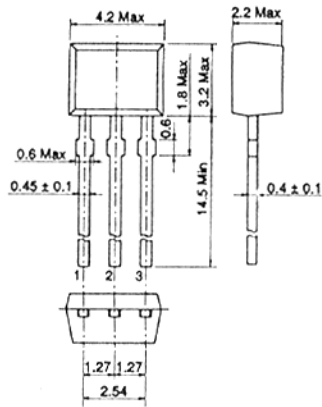


## 2SA1337

SILICON PNP EPITAXIAL

LOW FREQUENCY LOW NOISE AMPLIFIER  
HF AMPLIFIER



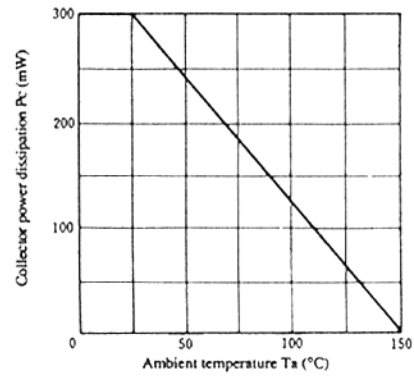
1. Emitter  
2. Collector  
3. Base  
(Dimensions in mm)

(SPAK)

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

Item	Symbol	2SA1337	Unit
Collector to base voltage	V <sub>CB0</sub>	-55	V
Collector to emitter voltage	V <sub>CEO</sub>	-50	V
Emitter to base voltage	V <sub>EBO</sub>	-5	V
Collector current	I <sub>C</sub>	-100	mA
Collector power dissipation	P <sub>C</sub>	300	mW
Junction temperature	T <sub>J</sub>	150	°C
Storage temperature	T <sub>stg</sub>	-55 to +150	°C

### ■ MAXIMUM COLLECTOR DISSIPATION CURVE



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

Item	Symbol	Test Condition	min.	typ.	max.	Unit
Collector to base breakdown voltage	V <sub>(BR)CBO</sub>	I <sub>C</sub> = -10μA, I <sub>E</sub> = 0	-55	—	—	V
Collector to emitter breakdown voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> = -1mA, R <sub>BE</sub> = ∞	-50	—	—	V
Emitter to base breakdown voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> = -10μA, I <sub>C</sub> = 0	-5	—	—	V
Collector cutoff current	I <sub>CB0</sub>	V <sub>CB</sub> = -18V, I <sub>E</sub> = 0	—	—	-0.5	μA
Emitter cutoff current	I <sub>EBO</sub>	V <sub>EB</sub> = -2V, I <sub>C</sub> = 0	—	—	-0.5	μA
DC current transfer ratio	h <sub>FE</sub> *	V <sub>CE</sub> = -12V, I <sub>C</sub> = -2mA	100	—	320	
Base to emitter voltage	V <sub>BE</sub>	V <sub>CE</sub> = -12V, I <sub>C</sub> = -2mA	—	—	-0.75	V
Collector to emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = -10mA, I <sub>B</sub> = -1mA	—	—	-0.2	V
Gain bandwidth product	f <sub>T</sub>	V <sub>CE</sub> = -12V, I <sub>C</sub> = -2mA	—	200	—	MHz
Collector output capacitance	C <sub>ob</sub>	V <sub>CB</sub> = -10V, I <sub>E</sub> = 0, f = 1MHz	—	—	4.5	pF
Noise figure	NF	V <sub>CE</sub> = -6V, I <sub>C</sub> = -0.1mA, R <sub>g</sub> = 1kΩ, f = 1kHz	—	1.0	5.0	dB

\* The 2SA1337 is grouped by h<sub>FE</sub> as follows.

B	C
100 to 200	160 to 320

■ See characteristic curves of 2SA1031.