

<Transistor>

2SA1530A

For Low Frequency Amplify Application
Silicon PNP Epitaxial Type (Mini type)

DESCRIPTION

2SA1530A is a super mini package resin sealed silicon PNP epitaxial type transistor. It is designed for low frequency voltage amplify application.

FEATURE

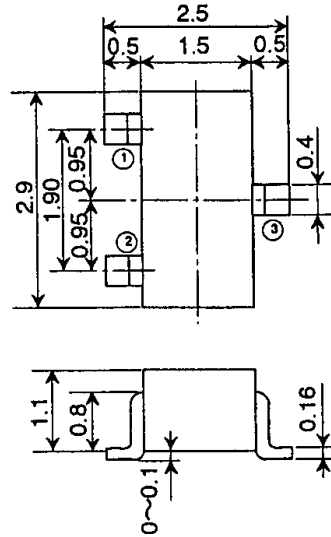
- Small collector to emitter saturation voltage
 $V_{CE(sat)} = -0.3V$ max
- Excellent lineality of DC forward current gain
- Super mini package for easy mounting

APPLICATION

For hybrid IC, small type machine low frequency voltage amplify application.

OUTLINE DRAWING

Unit:mm



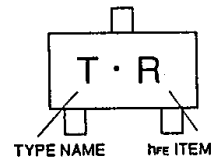
TERMINAL CONNECTOR

- ① : BASE
② : EMITTER
③ : COLLECTOR
- EIAJ : SC-59
JEDEC : TO-236 resemblance

MAXIMUM RATINGS (Ta=25°C)

Symbol	Parameter	Rating	Unit
V _{CB0}	Collector to Base voltage	-60	V
V _{EB0}	Emitter to Base voltage	-6	V
V _{CE0}	Collector to Emitter voltage	-50	V
I _C	Collector current	-150	mA
P _C	Collector dissipation (Ta=25°C)	200	mW
T _J	Junction temperature	+125	°C
T _{stg}	Storage temperature	-55 to +125	°C

MARKING



ELECTRICAL CHARACTERISTICS (Ta=25°C)

Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
V _{(BR)CEO}	C to E break down voltage	I _C = -100 μA, R _{BE} = ∞	-50			V
I _{CB0}	Collector cut off current	V _{CB} = -60V, I _E = 0			-0.1	μA
I _{EB0}	Emitter cut off current	V _{EB} = -4V, I _C = 0			-0.1	μA
h _{FE} *	DC forward current gain	V _{CE} = -6V, I _C = -1mA	120		560	—
h _{FE}	DC forward current gain	V _{CE} = -6V, I _C = -0.1mA	70			—
V _{CE(sat)}	C to E Saturation voltage	I _C = -100mA, I _B = -10mA			-0.3	V
f _T	Gain band width product	V _{CE} = -6V, I _E = 10mA		200		MHz
C _{ob}	Collector output capacitance	V _{CB} = -6V, I _E = 0, f = 1MHz		4		pF
NF	Noise figure	V _{CE} = -6V, I _E = 0.3mA, f = 100Hz, R _G = 10kΩ			20	dB

* : It shows h_{FE} classification in right table.

ITEM	Q	R	S
h _{FE}	120~270	180~390	270~560

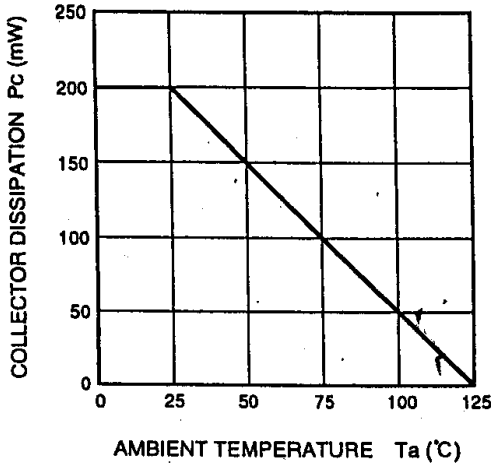
(Transistor)

2SA1530A

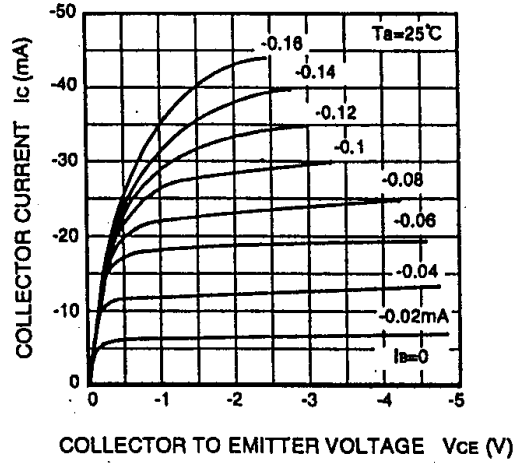
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Silicon PNP Epitaxial Type (Mini type)

TYPICAL CHARACTERISTICS

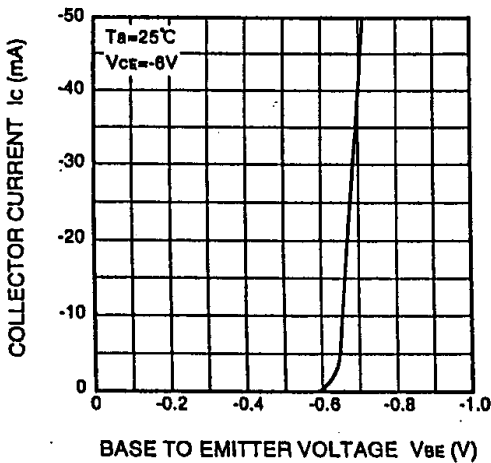
COLLECTOR DISSIPATION VS. AMBIENT TEMPERATURE



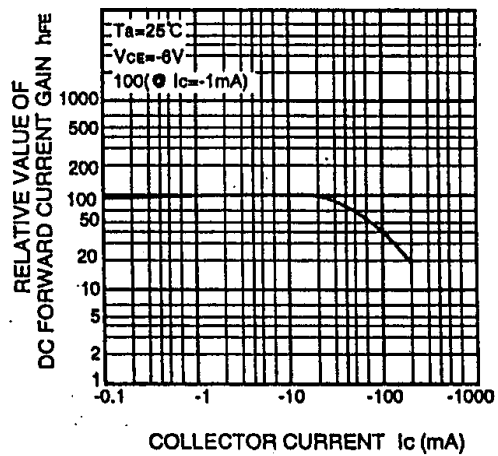
COMMON EMITTER OUTPUT



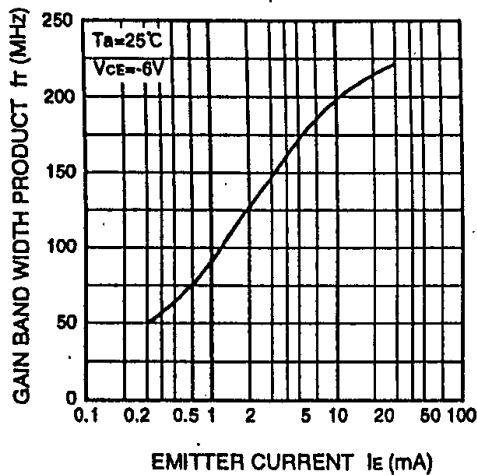
COMMON EMITTER TRANSFER



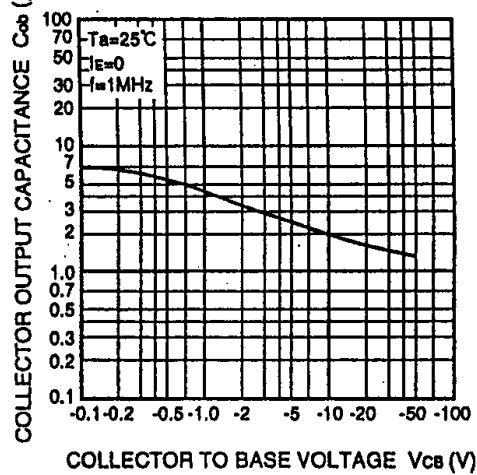
DC FORWARD CURRENT GAIN VS. COLLECTOR CURRENT



GAIN BAND WIDTH PRODUCT VS. EMITTER CURRENT



COLLECTOR OUTPUT CAPACITANCE VS. COLLECTOR TO BASE VOLTAGE



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