〈Transistor〉

2SA1530A

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

DESCURIPTION

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

FEATURE

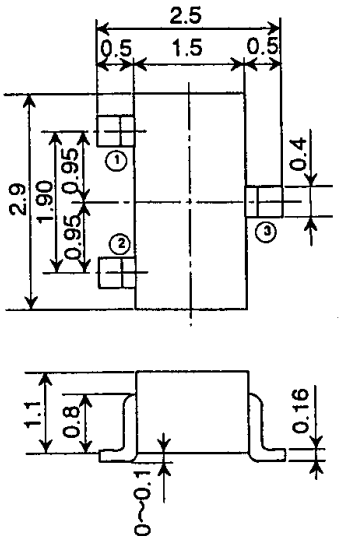
- Small collector to emitter saturation voltage
  $V_{CE(sat)}$=-0.3V max
- Excellent lineality of DC forward current gain
- Supper mini package for easy mounting

APPLICATION

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

OUTLINE DRAWING

Unit:mm



TERMINAL CONNECTOR

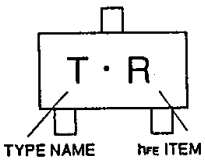
① : BASE
② : EMITTER
③ : COLLECTOR

EIAJ : SC-59
JEDEC : TO-236 resemblance

MAXIMUM RATINGS (Ta=25°C)

Symbol	Parameter	Ratings	Unit
V_{CBO}	Collector to Base voltage	-60	V
V_{EBO}	Emitter to Base voltage	-6	V
V_{CEO}	Collector to Emitter voltage	-50	V
I_C	Collector current	-150	mA
P_C	Collector dissipation(Ta=25°C)	200	mW
Tj	Junction temperature	+125	°C
Tstg	Storage temprature	-55to+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=-100μA, R_{BE}=∞	-50			V
I_{CBO}	Collector cut off current	V_{CB}= -60V, I_E=0			-0.1	μA
I_{EBO}	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
Cob	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,RG=10kΩ			20	dB

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

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

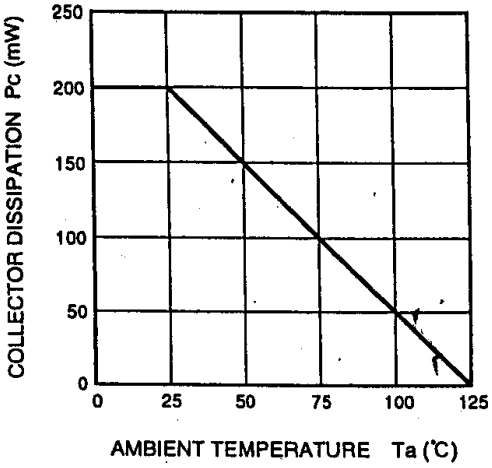
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2SA1530A

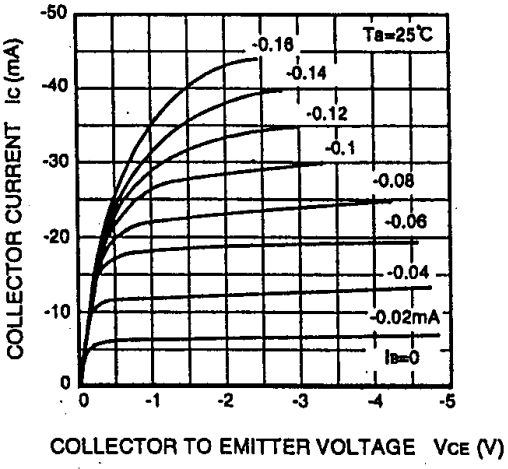
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TYPICAL CHARACTERISTICS

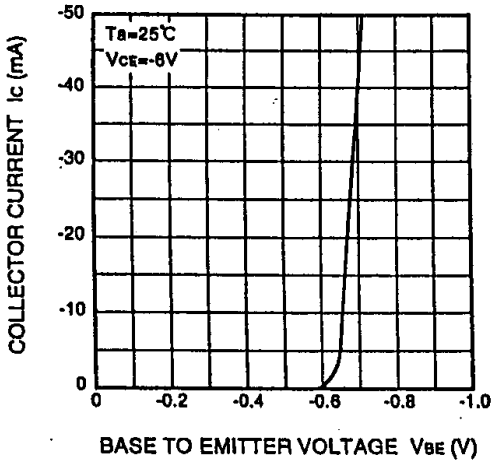
COLLECTOR DISSIPATION VS. AMBIENT TEMPERATURE



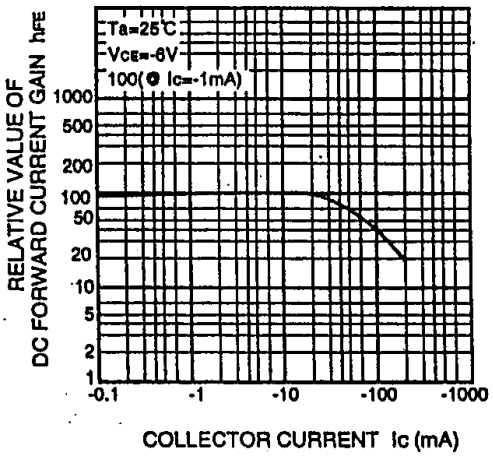
COMMON EMITTER OUTPUT



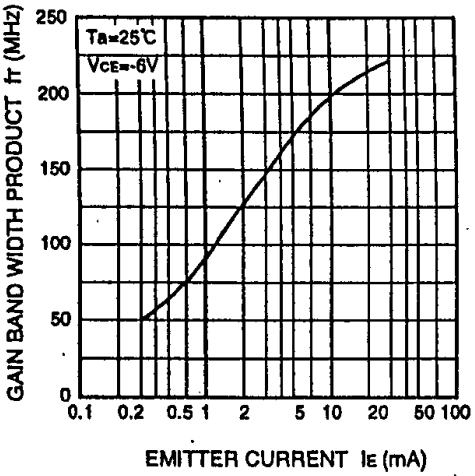
COMMON EMITTER TRANSFER



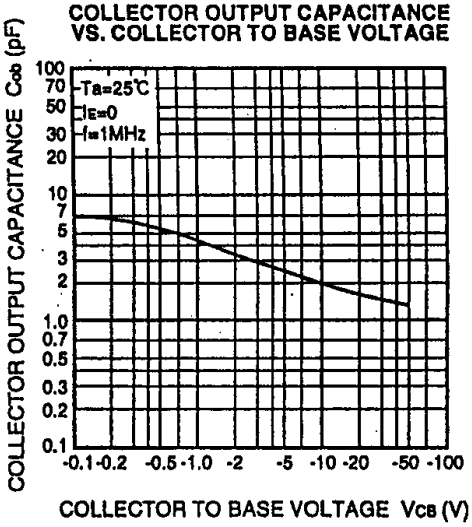
DC FORWARD CURRENT GAIN VS. COLLECTOR CURRENT



GAIN BAND WIDTH PRODUCT VS. EMITTER CURRENT



COLLECTOR OUTPUT CAPACITANCE VS. COLLECTOR TO BASE VOLTAGE



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