〈SMALL-SIGNAL TRANSISTOR〉

# RT1A3906-T122

**FOR LOW FREQUENCY AMPLIFY APPLICATION**
**SILICON PNP EPITAXIAL TYPE(mini type)**

## DESCRIPTION

RT1A3906 is a super mini package resin sealed silicon PNP epitaxial transistor,
It is designed for low frequency voltage application.

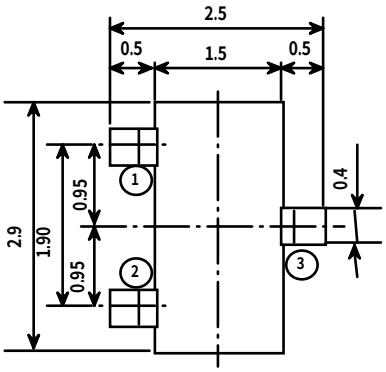
## FEATURE

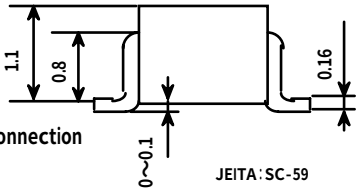
- ●Excellent linearity of DC forward gain.
- ●Super mini package for easy mounting
- ●Small collector to emitter saturation voltage.
  VCE(sat)=-0.4Vmax (@IC=-50mA、IB=-5mA)

## APPLICATION

For Hybrid IC,small type machine low frequency voltage Amplify application.

OUTLINEDRAWING
unit：mm



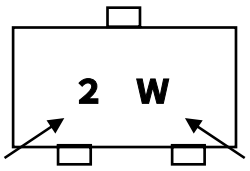

Terminal connection
①：Base
②：Emitter
③：Collector

JEITA：SC-59
JEDEC ： TO-236resemble

## MAXIMUM RATINGS (Ta=25°C)

| Symbol | Parameter | Ratings | Unit |
|---|---|---|---|
| $V_{CBO}$ | Collector to Base voltage | -60 | V |
| $V_{CEO}$ | Collector to Emitter voltage | -40 | V |
| $V_{EBO}$ | Emitter to Base voltage | -6 | V |
| $I_C$ | Collector current | 200 | mA |
| $P_c$ | Collector dissipation | 150 | mW |
| $T_j$ | Junction temperature | +150 | °C |
| $T_{stg}$ | Storage temperature | -55～+150 | °C |

Marking Figure



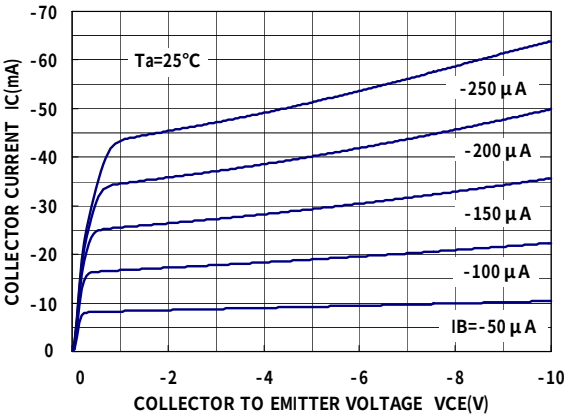

Abbreviation for Kind

hFE Item

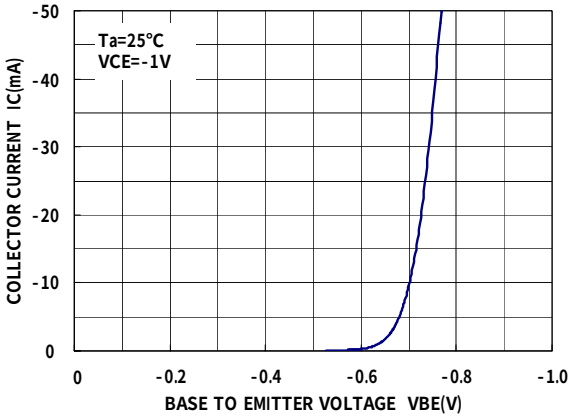
## ELECTRICAL CHARACTERISTICS (Ta=25°C)

| Symbol | Parameter | Test conditions | Limits | | | Unit |
|---|---|---|---|---|---|---|
| | | | Min | Min | Min | |
| V(BR)CEO | C to E break down voltage | Ic=-1mA,RBE=∞ | -40 | | | V |
| V(BR)CBO | C to B break down voltage | Ic=-10μA,IE=0 | -60 | | | V |
| V(BR)EBO | E to B break down voltage | IE =-10μA,IC=0 | -6 | | | V |
| IBL | Base cut off current | VCE=-30V,VEB=-3V | | | -50 | nA |
| ICEX | Collector cut off current | VCE=-30V,VEB=-3V | | | -50 | nA |
| hFE | DC forward current gain | VCE=-1V,IC=-10mA | 100 | | 300 | |
| V CE (sat) | C to E Saturation Voltage | Ic=-50mA,I B=-5mA | — | | -400 | mV |
| V BE (sat) | B to E Saturation Voltage | Ic=-50mA,I B=-5mA | — | | -950 | mV |
| fT | Gain bandwidth product | VCE=-20V, I C=-10mA ,f=100MHz | 250 | | — | MHz |
| Cob | Collector output capacitance | VCB=-5V,IE=0,f=1MHz | — | | 5.0 | pF |

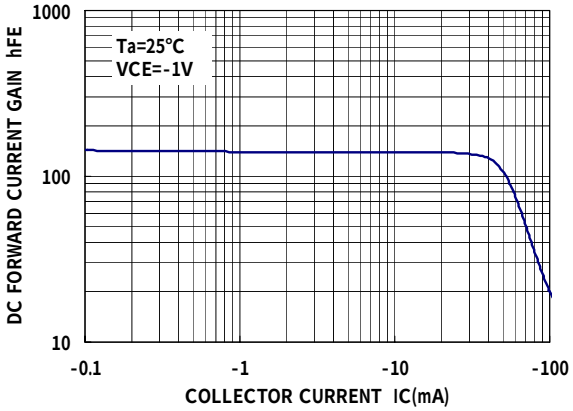
COMMON EMITTER OUTPUT



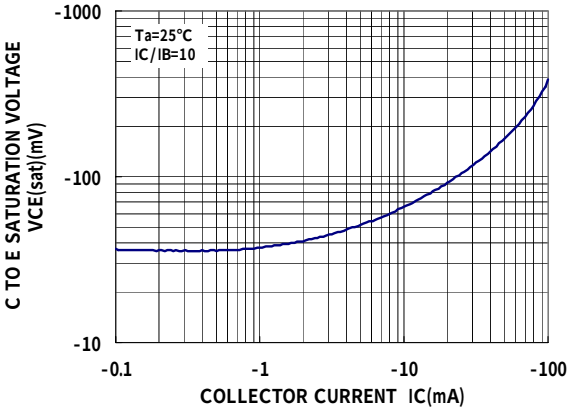

COMMON EMITTER TRANSFER



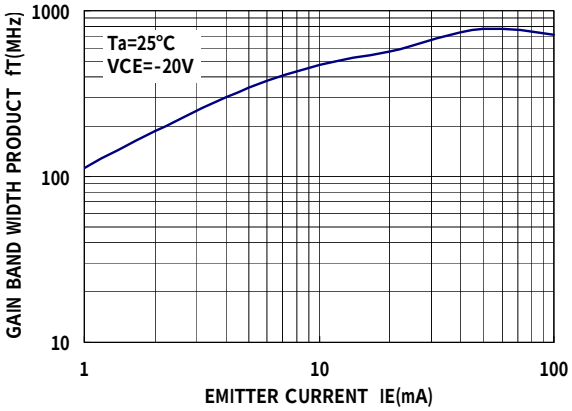

DC FORWARD CURRENT GAIN
VS.COLLECTOR CURRENT



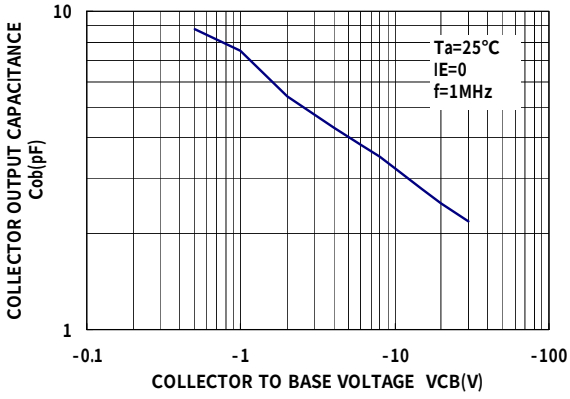

COLLECTOR EMITTER SATURATION VOLTAGE
VS.COLLECTOR CURRENT




GAIN BAND WIDTH PRODUCT VS.
EMITTER CURRENT




COLLECTOR OUTPUT CAPACITANCE
VS.COLLECTOR TO BASE VOLTAGE



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