# 2SA2026

FOR LOW FREQUENCY AMPLIFY APPLICATION
SILICON PNP EPITAXIAL TYPE

## DESCRIPTION

2SA2026 is a silicon PNP epitaxial type transistor. It is designed with high voltage application.

## FEATURE

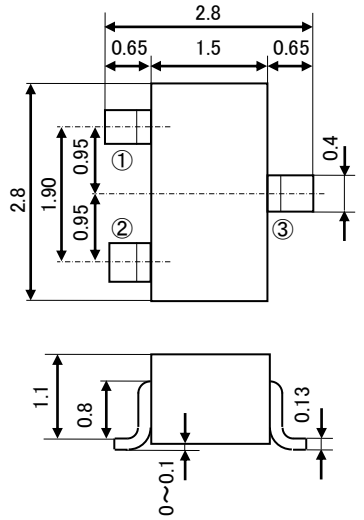
- Small collector to emitter saturation voltage
  VCE(sat)=−0.5V max (@IC=−100mA/IB=−10mA)
- Small package for easy mounting

## APPLICATION

Hybrid IC, DC−DC converter

## OUTLINE DRAWING

UNIT : mm



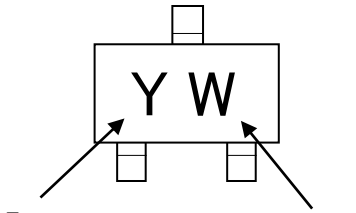

TERMINAL CONNECTER
①: BASE
②: EMITTER
③: COLLECTOR

JEITA:SC−59
JEDEC: Similar to TO−236

## MAXIMUM RATING (Ta=25℃)

| SYMBOL | PARAMETER | RATING | UNIT |
|---|---|---|---|
| $V_{CBO}$ | Collector to Base voltage | −300 | V |
| $V_{EBO}$ | Emitter to Base voltage | −7 | V |
| $V_{CEO}$ | Collector to Emitter voltage | −300 | V |
| $I_C$ | Collector current | −100 | mA |
| $P_C$ | Collector dissipation(Ta=25℃) | 200 | mW |
| $T_j$ | Junction temperature | +150 | ℃ |
| $T_{stg}$ | Storage temperature | −55～+150 | ℃ |

## MARKING

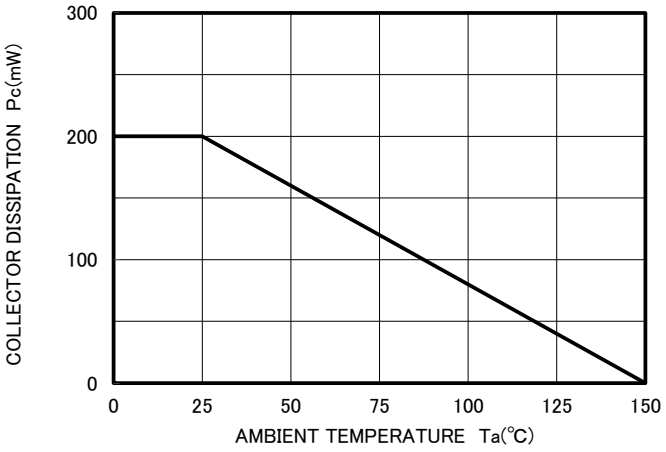



## ELECTRICAL CHARACTERISTICS (Ta=25℃)

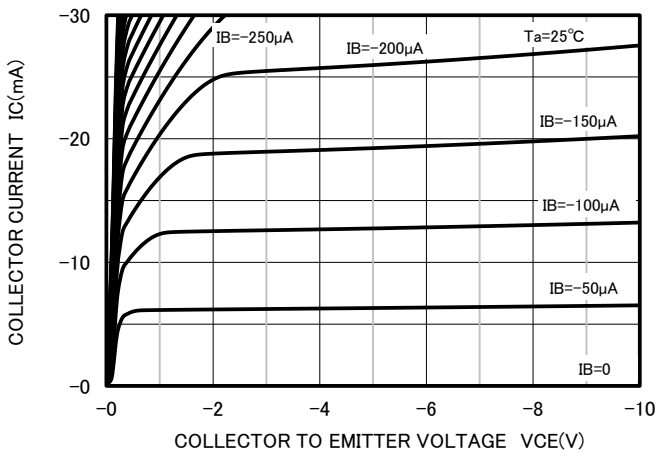
| SYMBOL | PARAMETER | TEST CONDITIONS | LIMITS | | | UNIT |
|---|---|---|---|---|---|---|
| | | | MIN | TYP | MAX | |
| $V_{(BR)CBO}$ | C to B breakdown voltage | $I_C$=−50 μA, $I_E$=0mA | −300 | − | − | V |
| $V_{(BR)EBO}$ | E to B breakdown voltage | $I_E$=−50 μA, $I_C$=0mA | −7 | − | − | V |
| $V_{(BR)CEO}$ | C to E breakdown voltage | $I_C$=−1mA, $R_{BE}$=∞ | −300 | − | − | V |
| $I_{CBO}$ | Collector cut off current | $V_{CB}$=−300V, $I_E$=0mA | − | − | −0.5 | μA |
| $I_{EBO}$ | Emitter cut off current | $V_{EB}$=−5V, $I_C$=0mA | − | − | −0.5 | μA |
| $h_{FE}$ | DC forward current gain | $V_{CE}$=−10V, $I_C$=−10mA | 50 | − | 305 | − |
| $V_{CE(sat)}$ | C to E saturation voltage | $I_C$=−100mA, $I_B$=−10mA | − | − | −0.5 | V |
| fT | Gain bandwidth product | $V_{CE}$=−6V, $I_E$=10mA | − | 40 | − | MHz |
| Cob | Collector output capacitance | $V_{CE}$=−6V, $I_E$=0mA, f=1MHz | − | 3.0 | − | pF |

## TYPICIAL CHARACTERISTICS

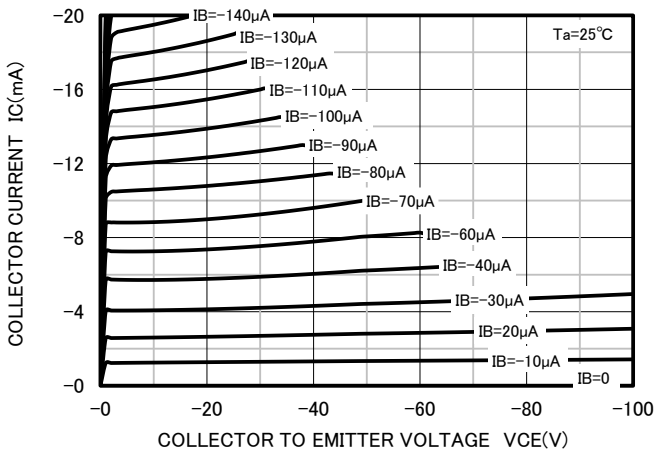
COLLECTOR DISSIPATION VS. AMBIENT TEMPERATURE



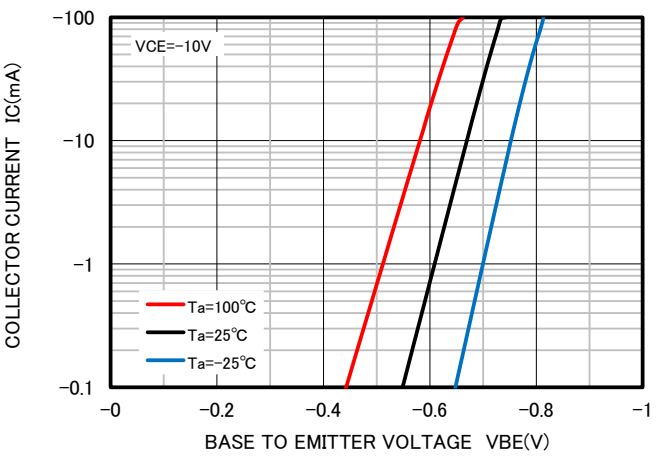

COMMON EMITTER OUTPUT(1)



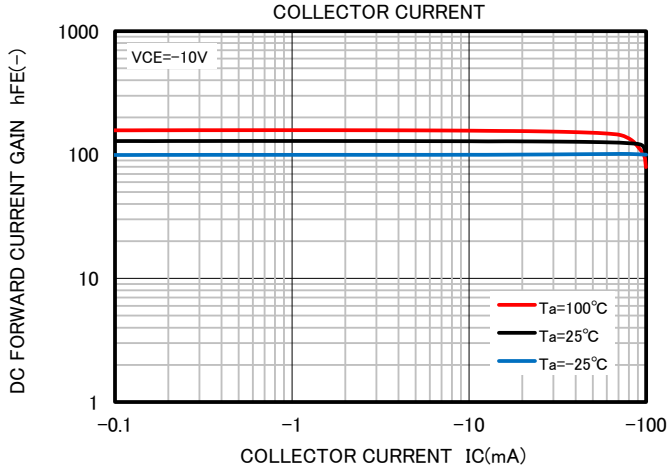

COMMON EMITTER OUTPUT(2)



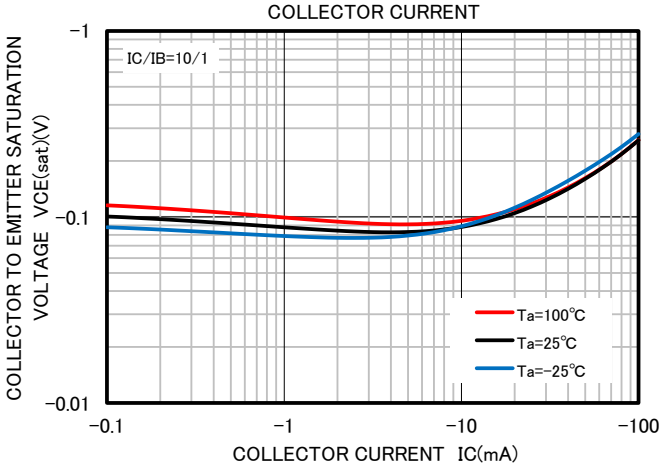

COMMON EMITTER TRANSFER



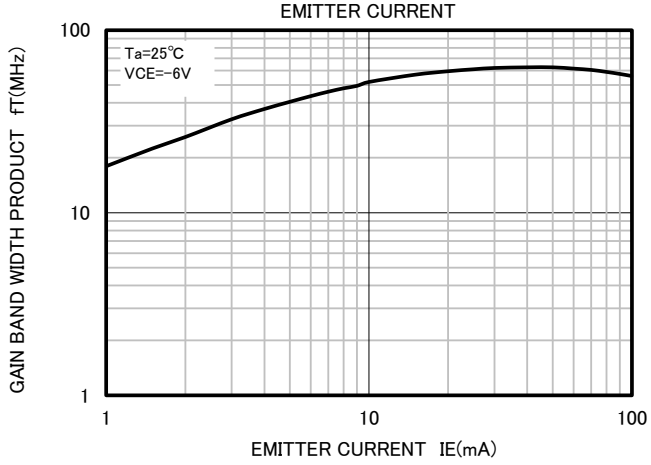

DC FORWARD CURRENT GAIN VS. COLLECTOR CURRENT



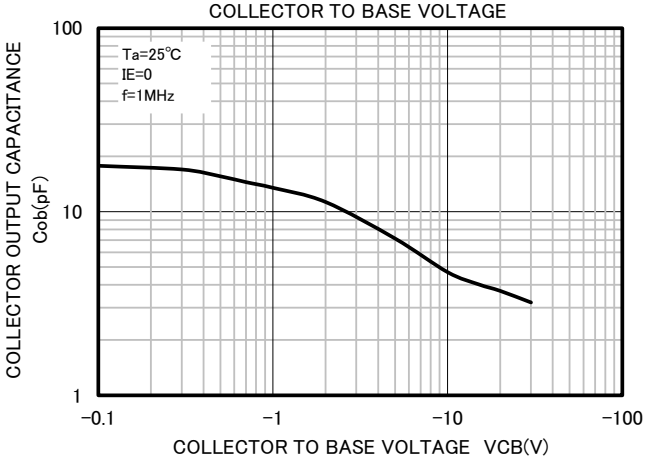

COLLECTOR TO EMITTER SATURATION VOLTAGE VS. COLLECTOR CURRENT



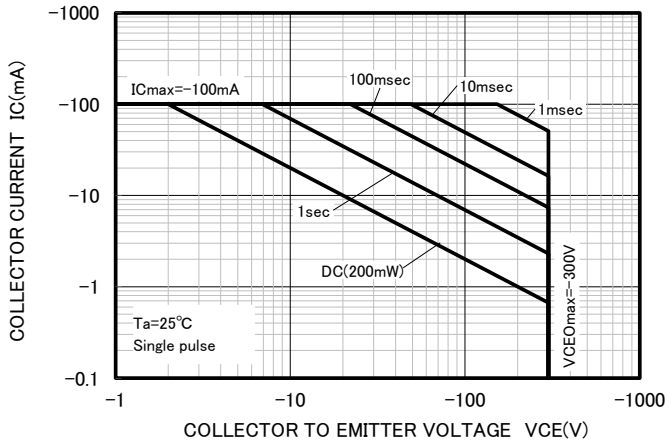
GAIN BAND WIDTH PRODUCT VS.
EMITTER CURRENT




COLLECTOR OUTPUT CAPACITANCE VS.
COLLECTOR TO BASE VOLTAGE




ASO



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