# INA6012AS1

FOR LOW FREQUENCY AMPLIFY APPLICATION
SILICON PNP EPITAXIAL TYPE

## DESCRIPTION

INA6012AS1 is a silicon PNP transistor.
It is designed with high voltage.

## FEATURE

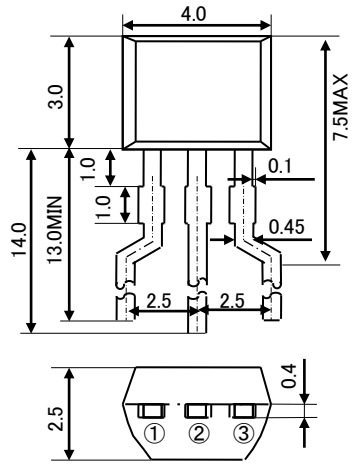
・High collector current $I_{Cmax}$=−0.2A
・High voltage $V_{CEO}$=−400V

## APPLICATION

DC-DC converter, High voltage switching.

## OUTLINE DRAWING

UNIT : mm



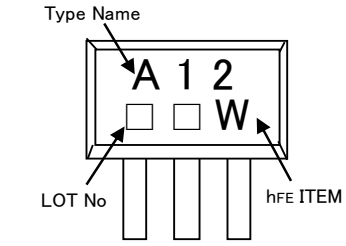

TERMINAL CONNECTOR
①: EMITTER
②: COLLECTOR
③: BASE

JEITA : −
JEDEC : −

## MAXIMUM RATING (Ta=25℃)

| SYMBOL | PARAMETER | RATING | UNIT |
|---|---|---|---|
| $V_{CBO}$ | Collector to Base voltage | −400 | V |
| $V_{EBO}$ | Emitter to Base voltage | −7 | V |
| $V_{CEO}$ | Collector to Emitter voltage | −400 | V |
| $I_C$ | Collector current | −200 | mA |
| $I_{CM}$ | Peak collector current | −500 | mA |
| $P_C$ | Collector dissipation(Ta=25℃) | 600 | mW |
| $T_j$ | Junction temperature | +150 | ℃ |
| $T_{stg}$ | Storage temperature | −55～+150 | ℃ |

## MARKING

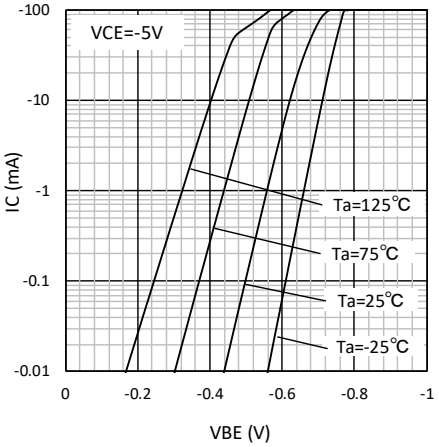



## ELECTRICAL CHARACTERISTICS (Ta=25℃)

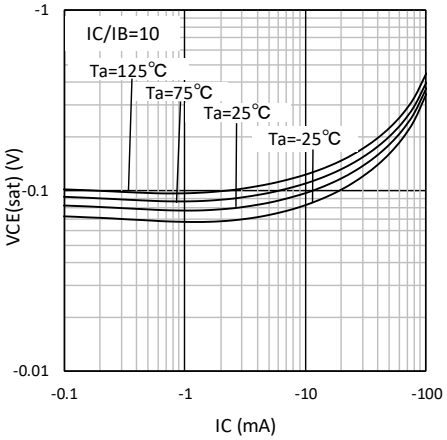
| SYMBOL | PARAMETER | TEST CONDITIONS | LIMITS | | | UNIT |
|---|---|---|---|---|---|---|
| | | | MIN | TYP | MAX | |
| $V_{(BR)CBO}$ | C to B breakdown voltage | $I_C$=−50 μA, $I_E$=0mA | −400 | − | − | V |
| $V_{(BR)EBO}$ | E to B breakdown voltage | $I_E$=−50 μA, $I_C$=0mA | −7 | − | − | V |
| $V_{(BR)CEO}$ | C to E breakdown voltage | $I_C$=−1mA, $R_{BE}$=∞ | −400 | − | − | V |
| $I_{CBO}$ | Collector cut off current | $V_{CB}$=−400V, $I_E$=0mA | − | − | −1 | μA |
| $I_{EBO}$ | Emitter cut off current | $V_{EB}$=−6V, $I_C$=0mA | − | − | −1 | μA |
| $h_{FE}$ | DC forward current gain | $V_{CE}$=−5V, $I_C$=−100mA | 110 | − | − | − |
| $V_{CE(sat)}$ | C to E saturation voltage | $I_C$=−50mA, $I_B$=−5mA | − | − | −0.75 | V |
| $V_{BE(sat)}$ | B to E saturation voltage | $I_C$=−50mA, $I_B$=−5mA | − | − | −1.1 | V |
| $f_T$ | Gain bandwidth product | $V_{CE}$=−5V, $I_E$=10mA | − | 30 | − | MHz |
| Cob | Collector output capacitance | $V_{CB}$=−20V, $I_E$=0mA, f=1MHz | − | 7 | − | pF |

## TYPICAL CHARACTERISTICS

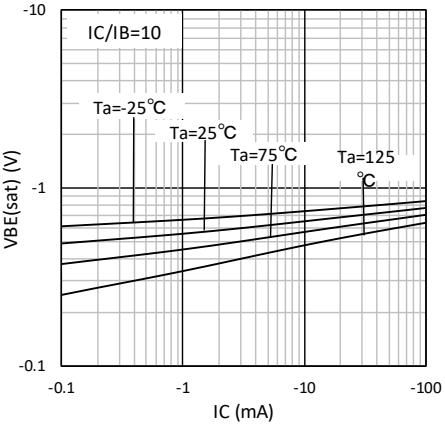
IC-VBE



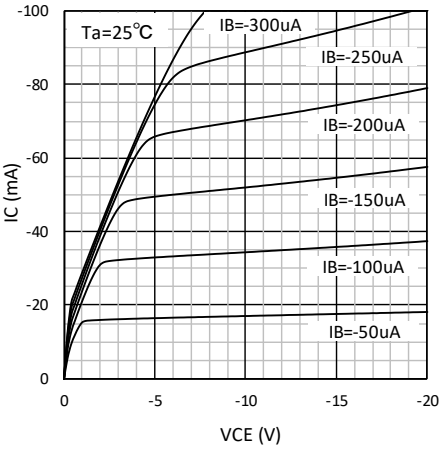

VCE(sat)-IC



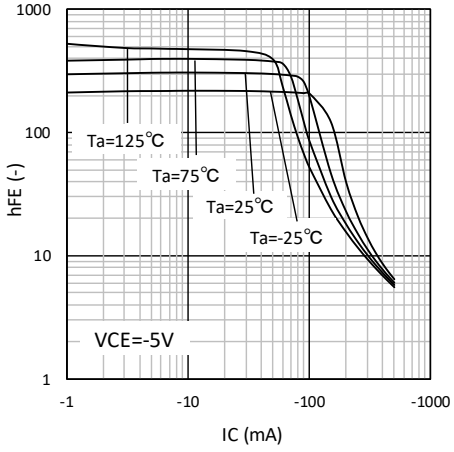

VBE(sat)-IC



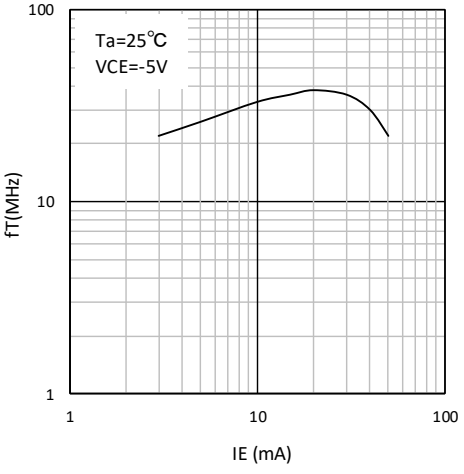

IC-VCE



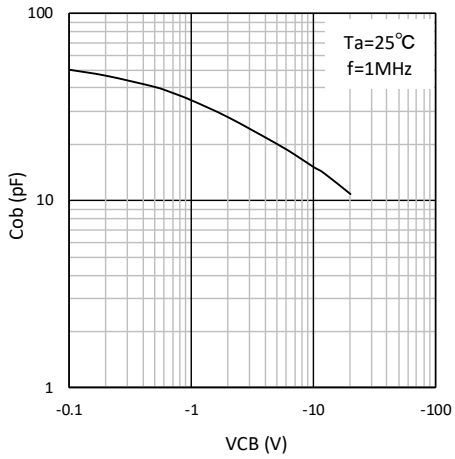

hFE-IC



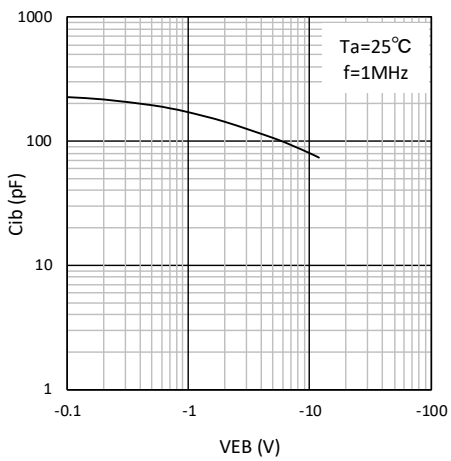

fT-IE



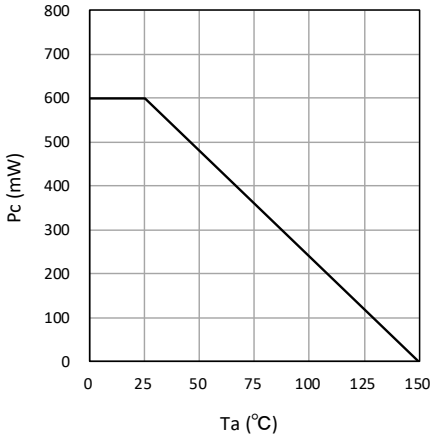
Cob-VCB




Cib-VEB




Pc-Ta



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