

PRELIMINARY

Notice: This is not a final specification
Some parametric are subject to change.

INA5005AC1

FOR HIGH CURRENT DRIVE APPLICATION
SILICON PNP EPITAXIAL TYPE

DESCRIPTION

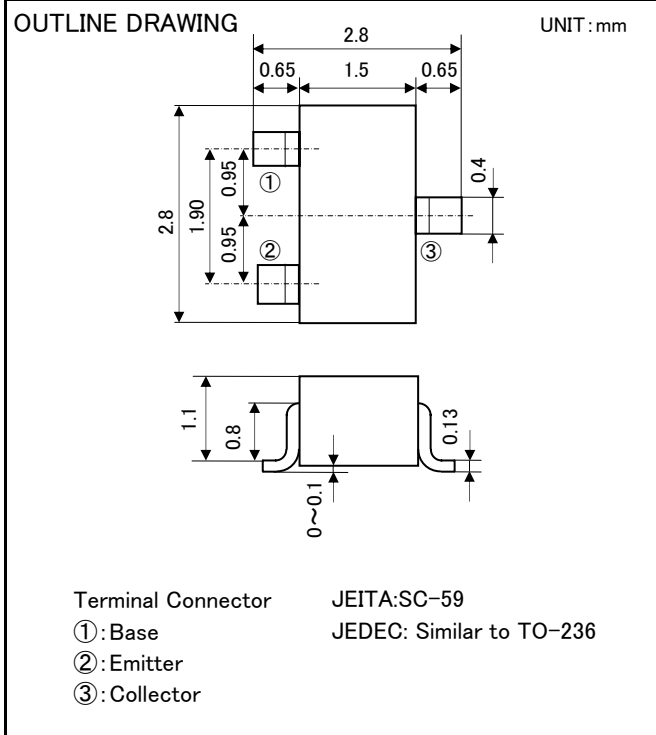
INA5005AC1 is a silicon PNP epitaxial type transistor.
It is designed with high collector current and small $V_{CE(sat)}$.

FEATURE

- Super mini package for easy mounting
- High collector current ($I_C = -1.5A$)
- Low collector saturation voltage
($V_{CE(sat)} < -0.5V_{max}$; $I_C = -800mA$, $I_B = -80mA$)

APPLICATION

For switching, Small type motor drive

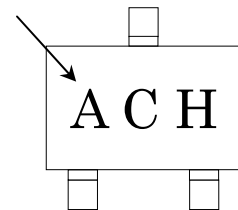


MAXIMUM RATING (Ta=25°C)

| SYMBOL | PARAMETER | RATING | UNIT |
|-----------|--------------------------------|----------|------|
| V_{CEO} | Collector to Emitter voltage | -25 | V |
| V_{CBO} | Collector to Base voltage | -40 | V |
| V_{EBO} | Emitter to Base voltage | -6 | V |
| I_C | Collector current | -1.5 | A |
| P_C | Collector dissipation(Ta=25°C) | 200 | mW |
| T_j | Junction temperature | +150 | °C |
| T_{stg} | Storage temperature | -55~+150 | °C |

MARKING

Type Name



ELECTRICAL CHARACTERISTICS (Ta=25°C)

| SYMBOL | PARAMETER | TEST CONDITIONS | LIMITS | | | UNIT |
|---------------|------------------------------|---|--------|-------|------|---------|
| | | | MIN | TYP | MAX | |
| $V_{(BR)CEO}$ | C to E break down voltage | $I_C = -1mA$, $I_B = 0mA$ | -25 | - | - | V |
| $V_{(BR)CBO}$ | C to B break down voltage | $I_C = -100\mu A$, $I_E = 0mA$ | -40 | - | - | V |
| $V_{(BR)EBO}$ | E to B break down voltage | $I_E = -100\mu A$, $I_C = 0mA$ | -6 | - | - | V |
| I_{CBO} | Collector cut off current | $V_{CB} = -40V$, $I_E = 0mA$ | - | - | -0.1 | μA |
| I_{EBO} | Emitter cut off current | $V_{EB} = -6V$, $I_C = 0mA$ | - | - | -0.1 | μA |
| h_{FE1} | DC forward current gain1 | $V_{CE} = -1V$, $I_C = -5mA$ | 45 | - | - | - |
| h_{FE2} | DC forward current gain2 | $V_{CE} = -1V$, $I_C = -100mA$ | 85 | - | 300 | - |
| h_{FE3} | DC forward current gain3 | $V_{CE} = -1V$, $I_C = -800mA$ | 40 | - | - | - |
| $V_{CE(sat)}$ | C to E saturation voltage | $I_C = -800mA$, $I_B = -80mA$ | - | -0.28 | -0.5 | V |
| $V_{BE(sat)}$ | B to E saturation voltage | $I_C = -800mA$, $I_B = -80mA$ | - | -0.98 | -1.2 | V |
| f_T | Gain bandwidth product | $V_{CE} = -10V$, $I_E = 50mA$, $f = 100MHz$ | 100 | 270 | - | MHz |
| C_{ob} | Collector output capacitance | $V_{CB} = -10V$, $f = 100MHz$ | - | 10 | - | pF |



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Keep safety first in your circuit designs!

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