

PRELIMINARY

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

INA6001AC1

FOR HIGH CURRENT DRIVE APPLICATION
SILICON PNP EPITAXIAL TYPE

DESCRIPTION

INA6001AC1 is a silicon PNP epitaxial type transistor.
It is designed with high collector current and small $V_{CE(sat)}$.

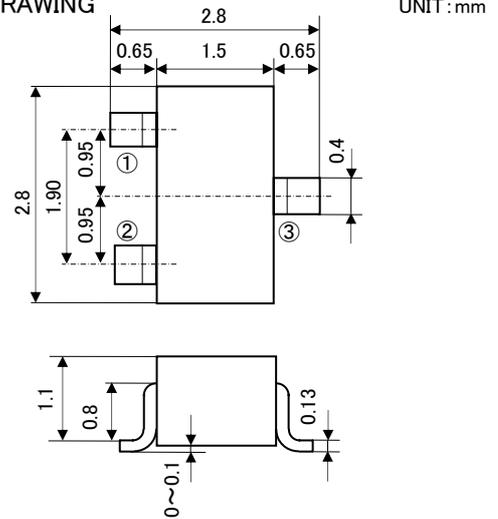
FEATURE

- Super mini package for easy mounting
- High collector current ($I_C = -1A$)
- Low collector saturation voltage
($V_{CE(sat)} < -0.5V_{max}$; $I_C = -500mA$, $I_B = -50mA$)

APPLICATION

For switching, Small type motor drive

OUTLINE DRAWING



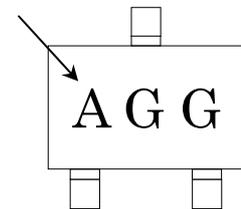
Terminal Connector JEITA:SC-59
JEDEC: Similar to TO-236
①: Base
②: Emitter
③: Collector

MAXIMUM RATING (Ta=25°C)

| SYMBOL | PARAMETER | RATING | UNIT |
|-----------|---------------------------------|------------|------|
| V_{CEO} | Collector to Emitter voltage | -100 | V |
| V_{CBO} | Collector to Base voltage | -120 | V |
| V_{EBO} | Emitter to Base voltage | -6 | V |
| I_C | Collector current | -1 | 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 | $I_C = -10mA$, $I_B = 0mA$ | -100 | - | - | V |
| $V_{(BR)CBO}$ | C to B break down voltage | $I_C = -100 \mu A$, $I_E = 0mA$ | -120 | - | - | 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 | $V_{CB} = -120V$, $I_E = 0mA$ | - | - | -0.5 | μA |
| I_{EBO} | Emitter cut off current | $V_{EB} = -6V$, $I_C = 0mA$ | - | - | -0.5 | μA |
| h_{FE1} | DC forward current gain1 | $V_{CE} = -2V$, $I_C = -150mA$ | 140 | - | 330 | - |
| h_{FE2} | DC forward current gain2 | $V_{CE} = -5V$, $I_C = -1A$ | 40 | - | - | - |
| $V_{CE(sat)}$ | C to E saturation voltage | $I_C = -500mA$, $I_B = -50mA$ | - | - | -0.5 | V |
| $V_{BE(sat)}$ | B to E saturation voltage | $I_C = -500mA$, $I_B = -50mA$ | - | - | -1.1 | V |
| f_T | Gain bandwidth product | $V_{CE} = -5V$, $I_E = 50mA$, $f = 100MHz$ | 100 | - | - | MHz |
| C_{ob} | Collector output capacitance | $V_{CB} = -10V$, $f = 1MHz$ | - | - | 10 | pF |



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Keep safety first in your circuit designs!

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