

PRELIMINARY

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

INA5002AC1

FOR LOW FREQUENCY AMPLIFY APPLICATION
SILICON PNP EPITAXIAL TYPE

DESCRIPTION

INA5002AC1 is a silicon PNP epitaxial transistor designed for relay drive or Power supply application.

FEATURE

- Super mini package for easy mounting
- High voltage $V_{CE0} = -60V$
- High collector current $I_C = -3A$
- Low collector saturation voltage

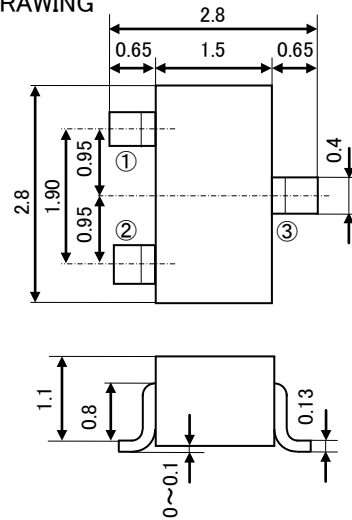
$$(V_{CE(sat)} < -0.6V_{max}; I_C = -3A, I_B = -300mA)$$

APPLICATION

DC/DC converter, Relay drive, Moter drive

OUTLINE DRAWING

UNIT: mm



Terminal Connector

JEITA:SC-59

①: Base

JEDEC: Similar to TO-236

②: Emitter

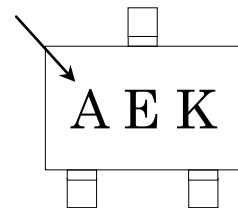
③: Collector

MAXIMUM RATING (Ta=25°C)

| SYMBOL | PARAMETER | RATING | UNIT |
|-----------|--------------------------------|----------|------|
| V_{CE0} | Collector to Emitter voltage | -80 | V |
| V_{EBO} | Emitter to Base voltage | -6 | V |
| V_{CBO} | Collector to Base voltage | -60 | V |
| I_C | Collector current | -3 | A |
| I_{CM} | Peak collector current | -6 | |
| 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 | |
| $V_{(BR)CBO}$ | C to B break down voltage | $I_C = -100 \mu A, I_E = 0mA$ | -80 | - | - | V |
| $V_{(BR)EBO}$ | E to B break down voltage | $I_E = -100 \mu A, I_C = 0mA$ | -6 | - | - | V |
| $V_{(BR)CEO}$ | C to E break down voltage | $I_C = -1mA, R_{BE} = \infty$ | -60 | - | - | V |
| I_{CBO} | Collector cut off current | $V_{CB} = -60V, I_E = 0mA$ | - | - | -1.0 | μA |
| I_{EBO} | Emitter cut off current | $V_{EB} = -4V, I_C = 0mA$ | - | - | -1.0 | μA |
| h_{FE} | DC forward current gain | $V_{CE} = -2V, I_C = -0.5A$ | 100 | - | 300 | - |
| $V_{CE(sat)}$ | C to E saturation voltage | $I_C = -3A, I_B = -300mA$ | - | - | -0.5 | V |
| f_T | Gain bandwidth product | $V_{CE} = -5V, I_E = 100mA, f = 100MHz$ | - | 150 | - | MHz |
| C_{ob} | Collector output capacitance | $V_{CB} = -10V, I_E = 0mA, f = 1MHz$ | - | 25 | - | pF |



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Keep safety first in your circuit designs!

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