

**PRELIMINARY**

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

**INC6008AP1**

FOR LOW FREQUENCY AMPLIFY APPLICATION  
SILICON NPN EPITAXIAL TYPE

**DESCRIPTION**

INC6008AP1 is a silicon NPN transistor.

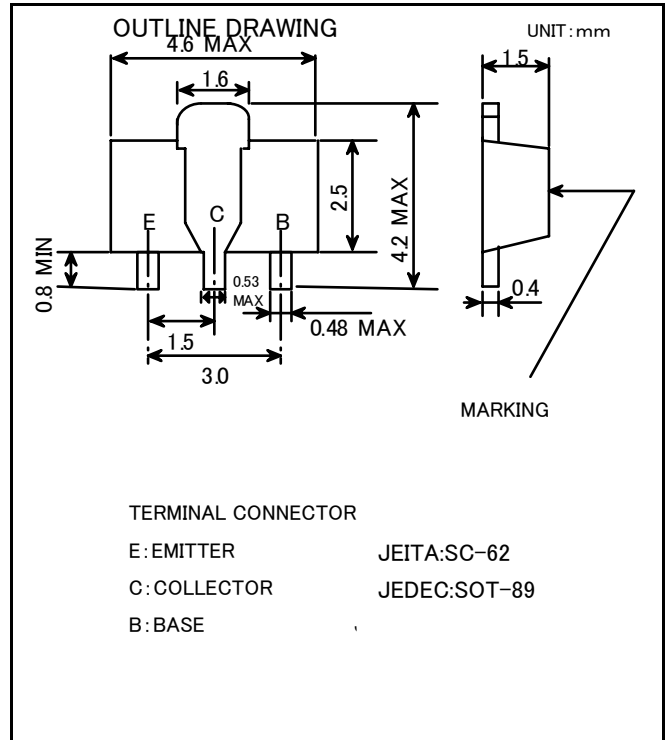
It is designed with high voltage.

**FEATURE**

- Small package for easy mounting.
- High voltage  $V_{CE0} = 140V$
- High collector current  $I_C = 1A$
- Low voltage  $V_{CE(sat)} = 0.7V(MAX)$

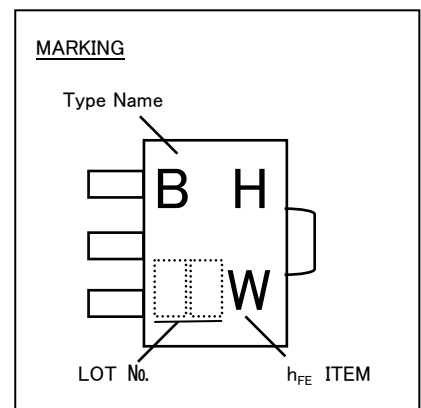
**APPLICATION**

Relay drive, Power supply



**MAXIMUM RATING (Ta=25°C)**

| SYMBOL    | PARAMETER                      | RATING   | UNIT |
|-----------|--------------------------------|----------|------|
| $V_{CBO}$ | Collector to Base voltage      | 160      | V    |
| $V_{EBO}$ | Emitter to Base voltage        | 5        | V    |
| $V_{CEO}$ | Collector to Emitter voltage   | 140      | V    |
| $I_C$     | Collector current              | 1        | A    |
| $P_C$     | Collector dissipation(Ta=25°C) | 500      | mW   |
| $T_j$     | Junction temperature           | +150     | °C   |
| $T_{stg}$ | Storage temperature            | -55~+150 | °C   |



**ELECTRICAL CHARACTERISTICS (Ta=25°C)**

| SYMBOL        | PARAMETER                    | TEST CONDITIONS                     | LIMITS |     |     | UNIT |
|---------------|------------------------------|-------------------------------------|--------|-----|-----|------|
|               |                              |                                     | MIN    | TYP | MAX |      |
| $V_{(BR)CBO}$ | C to B break down voltage    | $I_C = 100 \mu A, I_E = 0mA$        | 160    | -   | -   | V    |
| $V_{(BR)EBO}$ | E to B break down voltage    | $I_E = 100 \mu A, I_C = 0mA$        | 5      | -   | -   | V    |
| $V_{(BR)CEO}$ | C to E break down voltage    | $I_C = 10mA, R_{BE} = \infty$       | 140    | -   | -   | V    |
| $I_{CBO}$     | Collector cut off current    | $V_{CB} = 140V, I_E = 0mA$          | -      | -   | 100 | nA   |
| $I_{EBO}$     | Emitter cut off current      | $V_{EB} = 4V, I_C = 0mA$            | -      | -   | 100 | nA   |
| hFE1          | DC forward current gain1     | $V_{CE} = 10V, I_C = 150mA$         | 100    | -   | 300 | -    |
| hFE2          | DC forward current gain2     | $V_{CE} = 10V, I_C = 1A$            | -      | 10  | -   | -    |
| VCE(sat)      | C to E saturation voltage    | $I_C = 150mA, I_B = 15mA$           | -      | -   | 0.7 | V    |
| VBE(sat)      | B to E saturation voltage    | $I_C = 150mA, I_B = 15mA$           | -      | -   | 1.1 | V    |
| fT            | Gain bandwidth product       | $V_{CE} = 10V, I_E = -50mA$         | 100    | -   | -   | MHz  |
| Cob           | Collector output capacitance | $V_{CB} = 10V, I_E = 0mA, f = 1MHz$ | -      | -   | 15  | pF   |

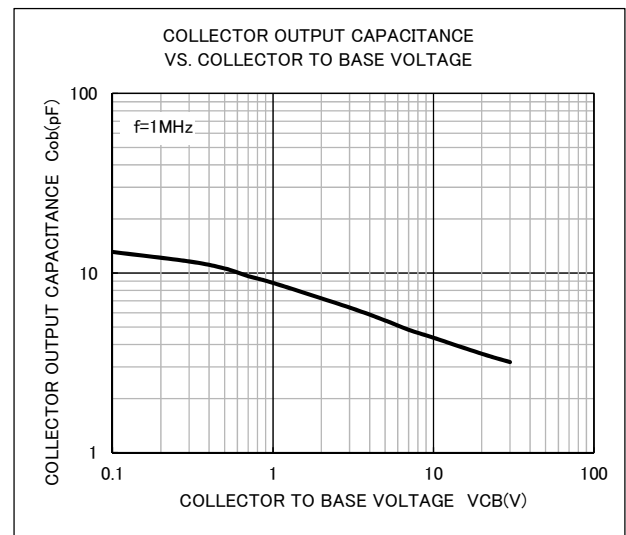
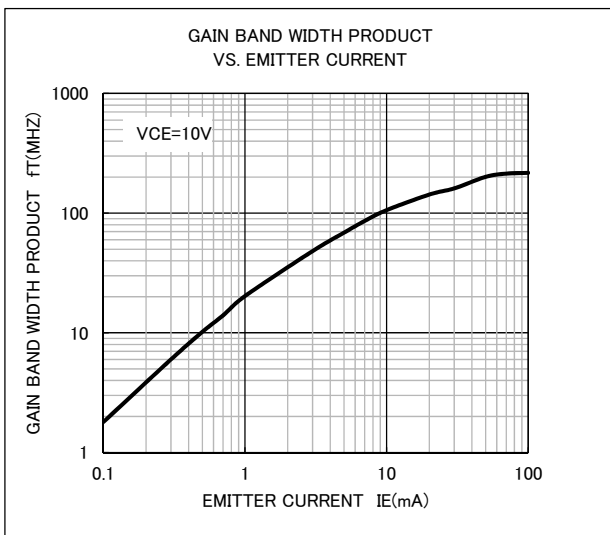
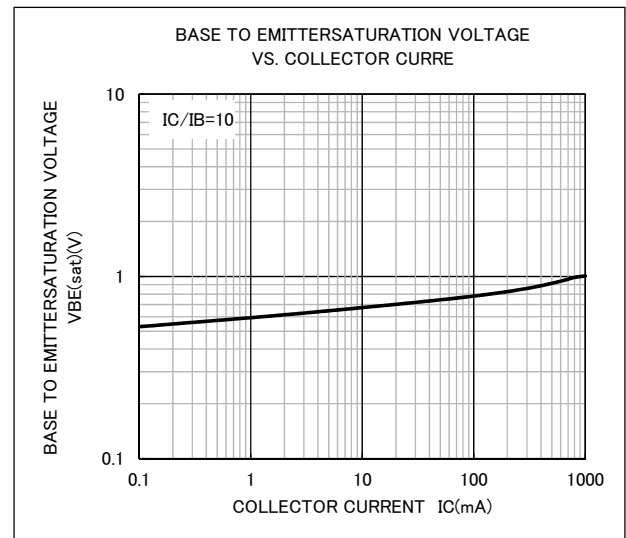
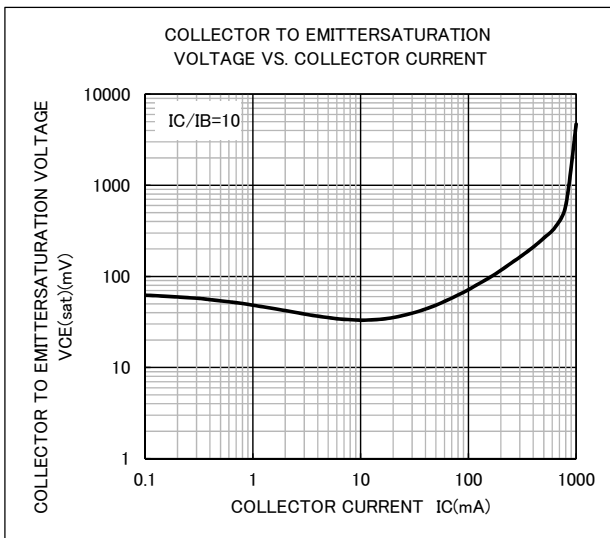
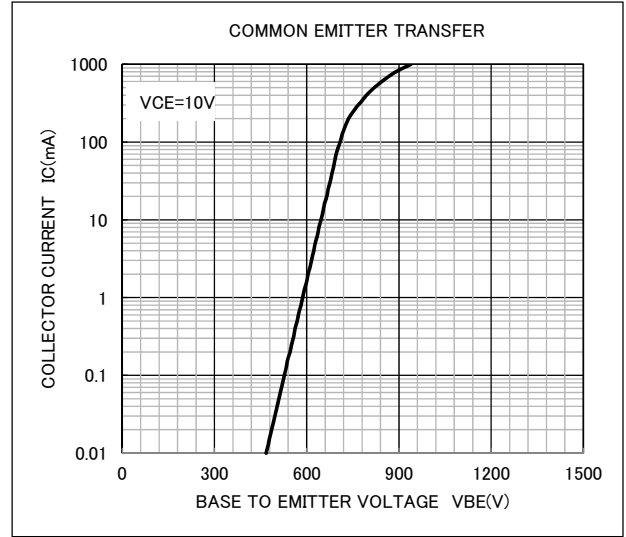
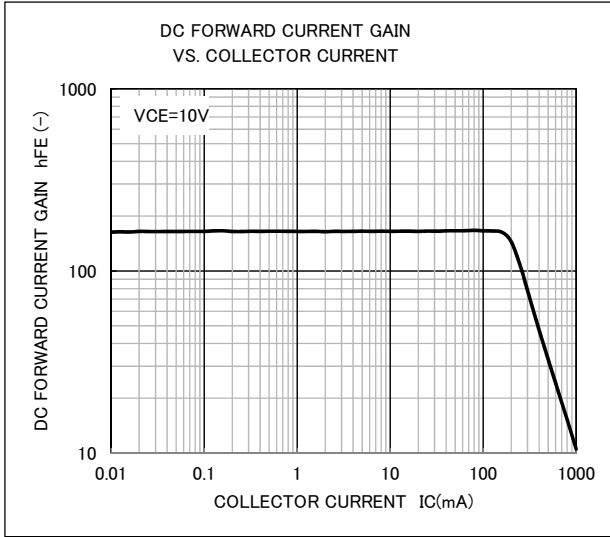
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TYPICAL CHARACTERISTICS (Ta=25°C)

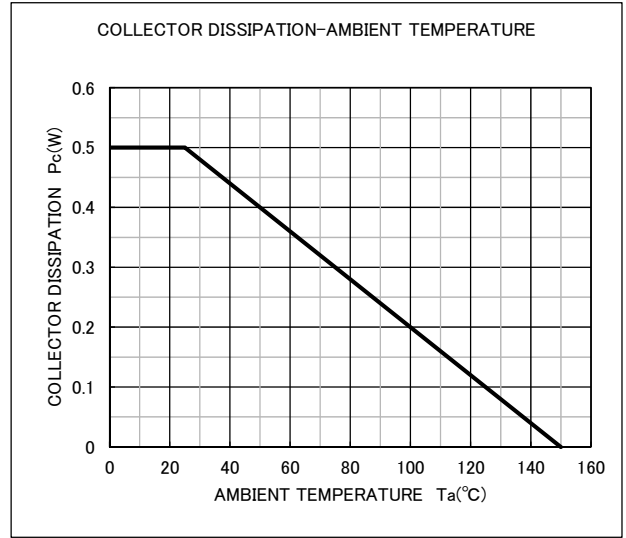
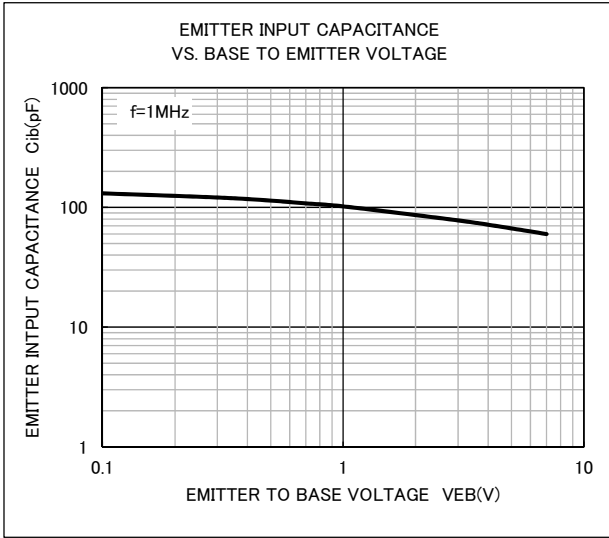


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SILICON NPN EPITAXIAL TYPE





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