

XN04A88

Silicon NPN epitaxial planer transistor (Tr1)
 Silicon PNP epitaxial planer transistor (Tr2)

For amplification of low frequency output

■ Features

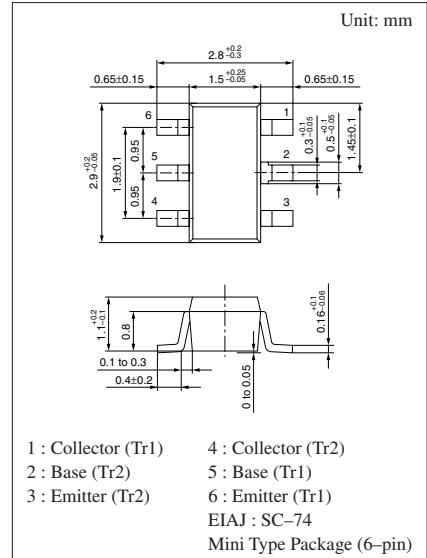
- Two elements incorporated into one package.
- Reduction of the mounting area and assembly cost by one half.

■ Basic Part Number of Element

- 2SD0601A(2SD601A)+UNR111S(UN111S)

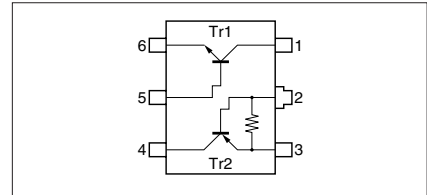
■ Absolute Maximum Ratings (Ta=25°C)

| | Parameter | Symbol | Ratings | Unit |
|---------|------------------------------|-----------|-------------|------|
| Tr1 | Collector to base voltage | V_{CBO} | 60 | V |
| | Collector to emitter voltage | V_{CEO} | 50 | V |
| | Emitter to base voltage | V_{EBO} | 7 | V |
| | Collector current | I_C | 100 | mA |
| | Peak collector current | I_{CP} | 200 | mA |
| Tr2 | Collector to base voltage | V_{CBO} | -50 | V |
| | Collector to emitter voltage | V_{CEO} | -50 | V |
| | Collector current | I_C | -100 | mA |
| Overall | Total power dissipation | P_T | 300 | mW |
| | Junction temperature | T_j | 150 | °C |
| | Storage temperature | T_{stg} | -55 to +150 | °C |



Marking Symbol: IZ

Internal Connection



Note.) The Part number in the Parenthesis shows conventional part number.

■ Electrical Characteristics (T_a=25°C)

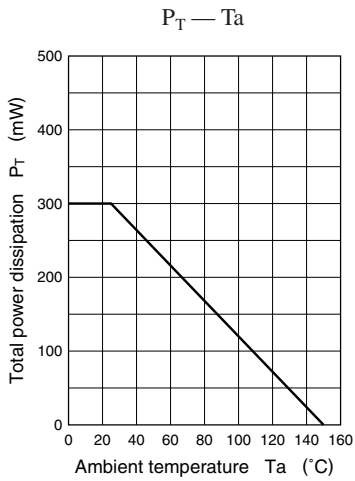
● Tr1

| Parameter | Symbol | Conditions | min | typ | max | Unit |
|---|----------------------|--|-----|-----|-----|------|
| Collector to base voltage | V _{CBO} | I _C = 10μA, I _E = 0 | 60 | | | V |
| Collector to emitter voltage | V _{CEO} | I _C = 2mA, I _B = 0 | 50 | | | V |
| Emitter to base voltage | V _{EBO} | I _E = 10μA, I _C = 0 | 7 | | | V |
| Collector cutoff current | I _{CBO} | V _{CB} = 20V, I _E = 0 | | | 0.1 | μA |
| | I _{CEO} | V _{CE} = 10V, I _B = 0 | | | 0.1 | mA |
| Forward current transfer ratio | h _{FE} | V _{CE} = 10V, I _C = 2mA | 160 | | 460 | |
| Collector to emitter saturation voltage | V _{CE(sat)} | I _C = 100mA, I _B = 10mA | | 0.1 | 0.3 | V |
| Collector output capacitance | C _{ob} | V _{CB} = 10V, I _E = 0, f = 1MHz | | 3.5 | | |
| Transition frequency | f _T | V _{CB} = 10V, I _E = -2mA, f = 200MHz | | 80 | | MHz |

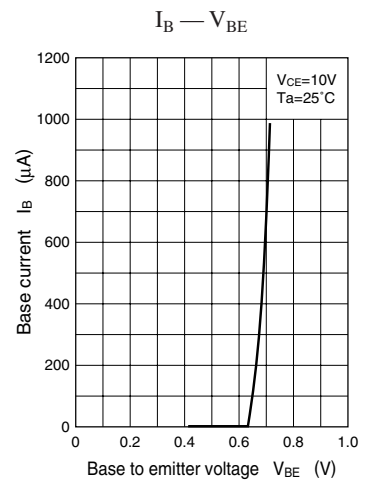
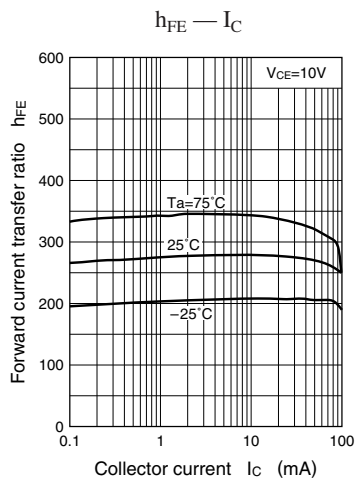
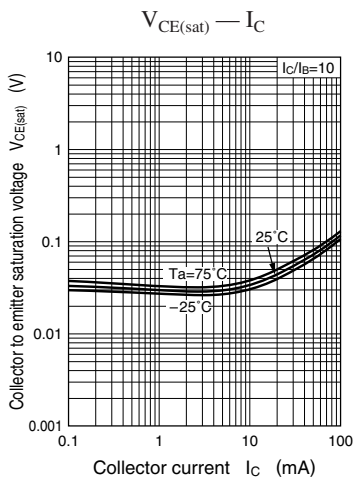
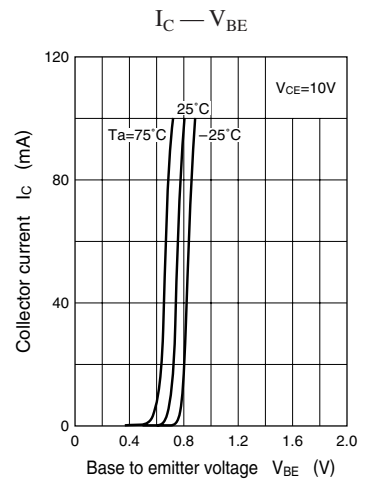
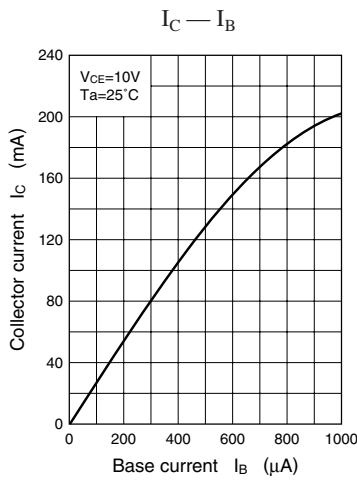
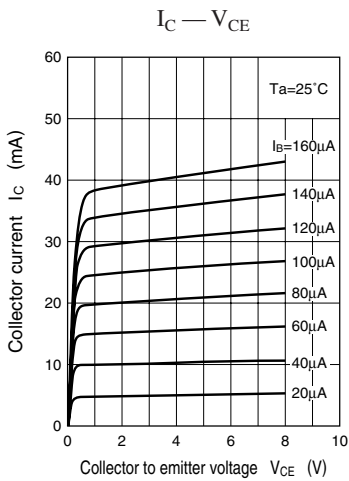
● Tr2

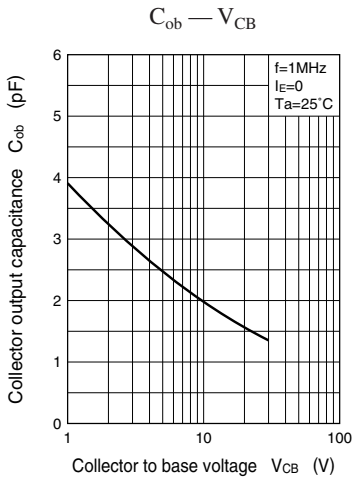
| Parameter | Symbol | Conditions | min | typ | max | Unit |
|---|----------------------|--|------|-----|-------|------|
| Collector to base voltage | V _{CBO} | I _C = -10μA, I _E = 0 | -50 | | | V |
| Collector to emitter voltage | V _{CEO} | I _C = -2mA, I _B = 0 | -50 | | | V |
| Collector cutoff current | I _{CBO} | V _{CB} = -50V, I _E = 0 | | | -0.1 | μA |
| | I _{CEO} | V _{CE} = -50V, I _B = 0 | | | -0.5 | μA |
| Emitter cutoff current | I _{EBO} | V _{EB} = -6V, I _C = 0 | | | -2.0 | mA |
| Forward current transfer ratio | h _{FE} | V _{CE} = -10V, I _C = -5mA | 20 | | | |
| Collector to emitter saturation voltage | V _{CE(sat)} | I _C = -10mA, I _B = -0.3mA | | | -0.25 | V |
| Base to emitter resistance | R _{BE} | | -30% | 4.7 | +30% | kΩ |
| Transition frequency | f _T | V _{CB} = -10V, I _E = 2mA, f = 200MHz | | 100 | | MHz |

Common characteristics chart

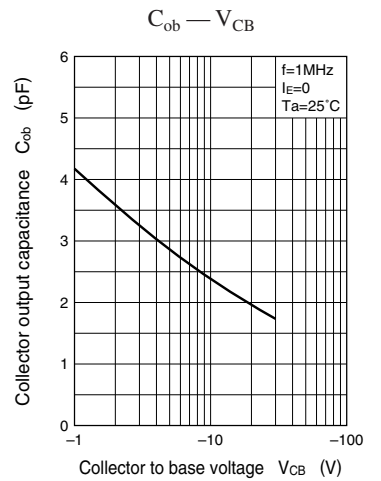
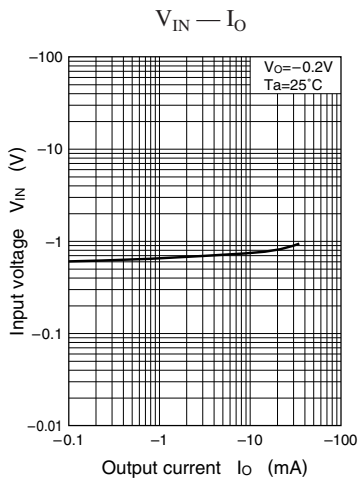
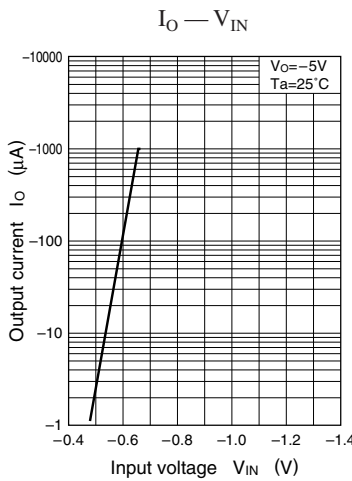
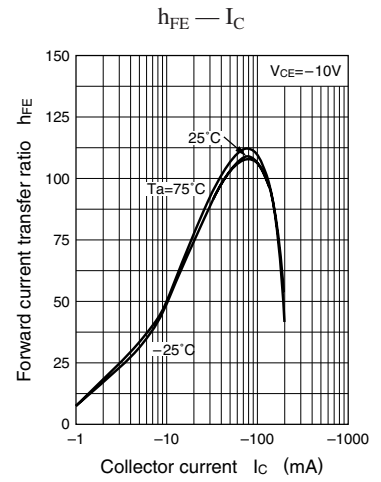
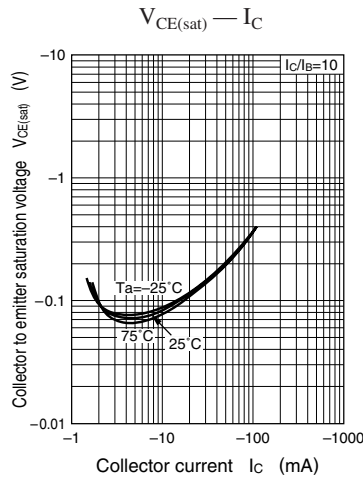
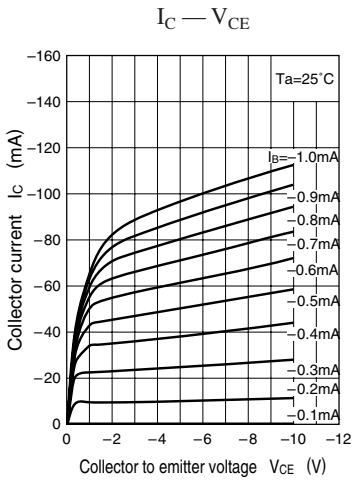


Characteristics charts of Tr1





Characteristics charts of Tr2



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