

UP04534

Silicon NPN epitaxial planar type

For high-frequency amplification

■ Features

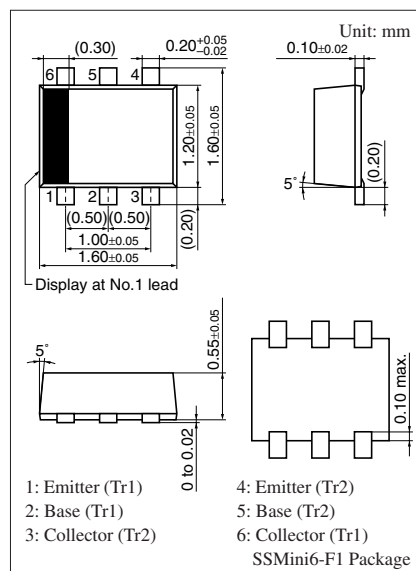
- Two elements incorporated into one package (Each transistor is separated)
- Reduction of the mounting area and assembly cost by one half

■ Basic Part Number

- 2SC2404 × 2

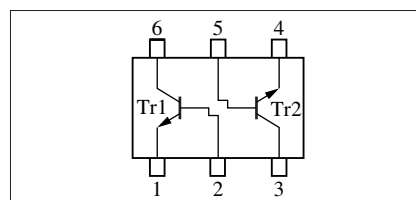
■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

| Parameter | Symbol | Rating | Unit |
|---------------------------------------|-----------|-------------|------------------|
| Collector-base voltage (Emitter open) | V_{CBO} | 30 | V |
| Collector-emitter voltage (Base open) | V_{CEO} | 20 | V |
| Emitter-base voltage (Collector open) | V_{EBO} | 3 | V |
| Collector current | I_C | 15 | mA |
| Total power dissipation | P_T | 125 | mW |
| Junction temperature | T_j | 125 | $^\circ\text{C}$ |
| Storage temperature | T_{stg} | -55 to +125 | $^\circ\text{C}$ |



Marking Symbol: 7E

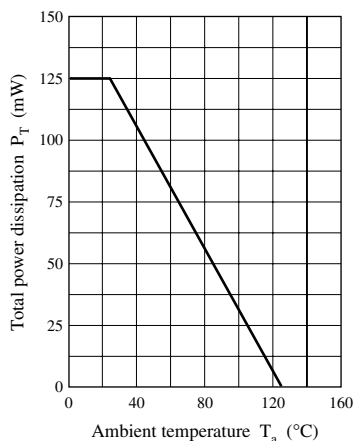
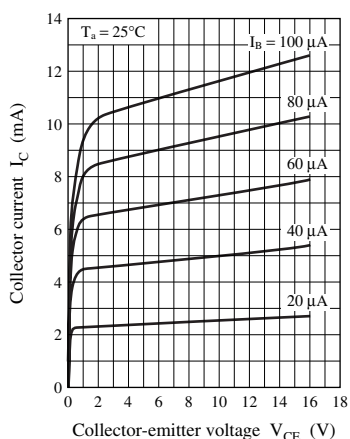
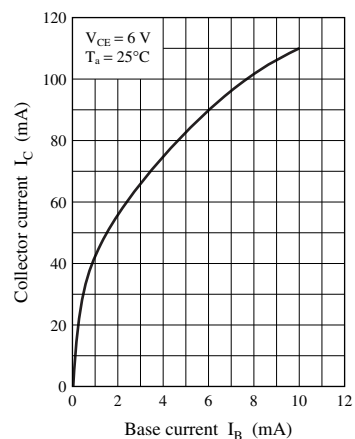
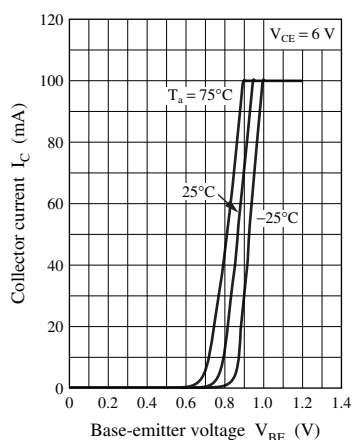
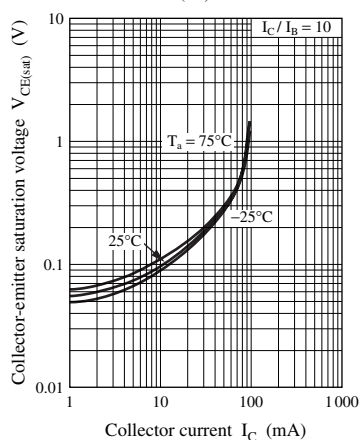
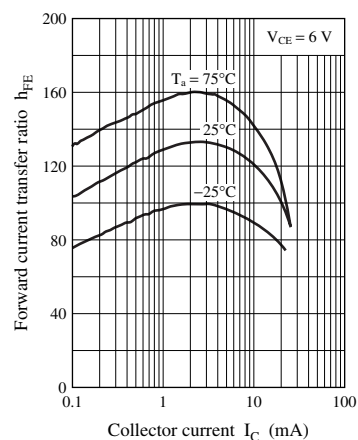
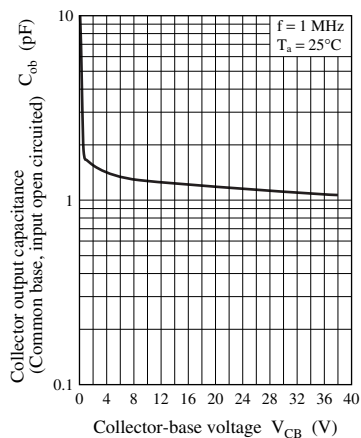
Internal Connection



■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

| Parameter | Symbol | Conditions | Min | Typ | Max | Unit |
|---|-----------|---|-----|-----|-----|------|
| Collector-base voltage (Emitter open) | V_{CBO} | $I_C = 10 \mu\text{A}$, $I_E = 0$ | 30 | | | V |
| Emitter-base voltage (Collector open) | V_{EBO} | $I_E = 10 \mu\text{A}$, $I_C = 0$ | 3 | | | V |
| Base-emitter voltage | V_{BE} | $V_{CB} = 6 \text{ V}$, $I_E = -1 \text{ mA}$ | | 720 | | mV |
| Forward current transfer ratio | h_{FE} | $V_{CB} = 6 \text{ V}$, $I_E = -1 \text{ mA}$ | 65 | | 160 | — |
| Reverse transfer capacitance (Common emitter) | C_{re} | $V_{CB} = 6 \text{ V}$, $I_E = -1 \text{ mA}$, $f = 10.7 \text{ MHz}$ | | 0.8 | 1.0 | pF |
| Transition frequency | f_T | $V_{CB} = 6 \text{ V}$, $I_E = -1 \text{ mA}$, $f = 200 \text{ MHz}$ | 450 | 650 | | MHz |
| Noise figure | NF | $V_{CB} = 6 \text{ V}$, $I_E = -1 \text{ mA}$, $f = 100 \text{ MHz}$ | | 3.3 | | dB |
| Power gain | G_p | $V_{CB} = 6 \text{ V}$, $I_E = -1 \text{ mA}$, $f = 100 \text{ MHz}$ | | 24 | | dB |

Note) Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

$P_T - T_a$  $I_C - V_{CE}$  $I_C - I_B$  $I_C - V_{BE}$  $V_{CE(sat)} - I_C$  $h_{FE} - I_C$  $C_{ob} - V_{CB}$ 

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