

# UP04534

## Silicon NPN epitaxial planar type

For high-frequency amplification

### ■ Features

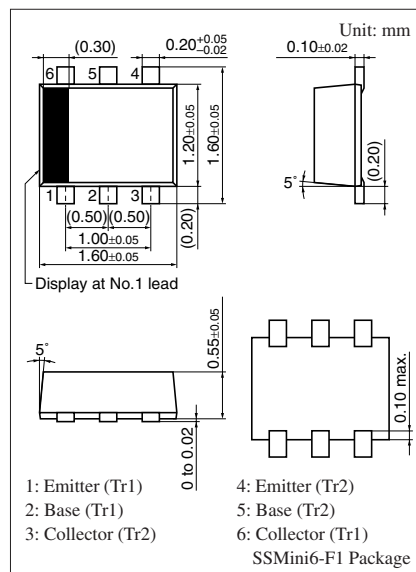
- Two elements incorporated into one package (Each transistor is separated)
- Reduction of the mounting area and assembly cost by one half

### ■ Basic Part Number

- 2SC2404 × 2

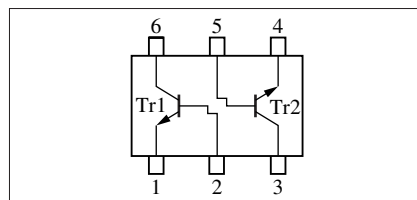
### ■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

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



Marking Symbol: 7E

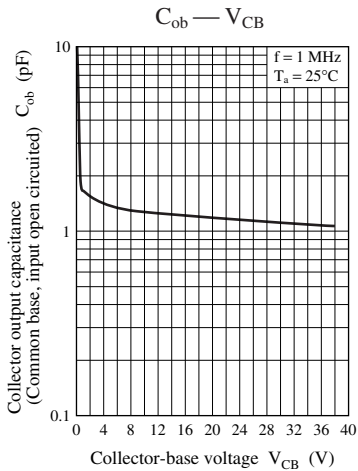
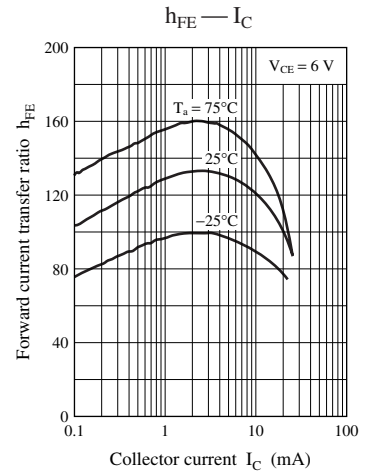
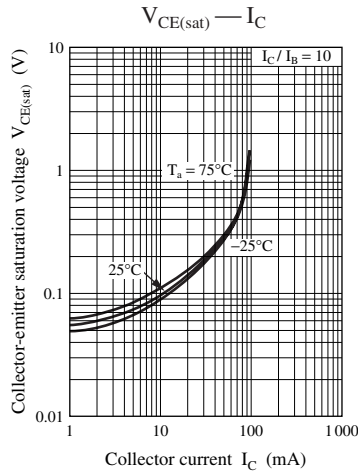
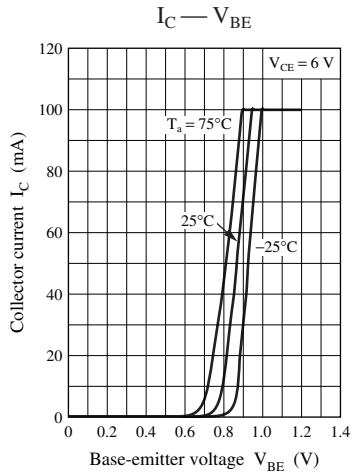
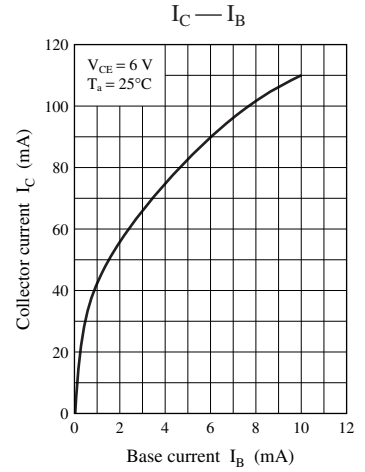
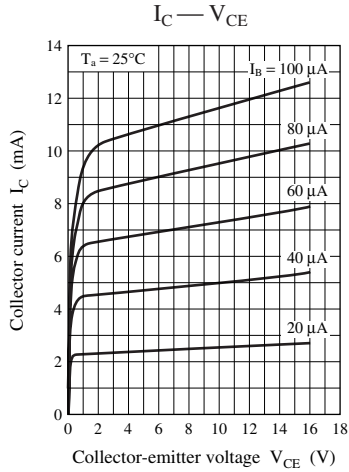
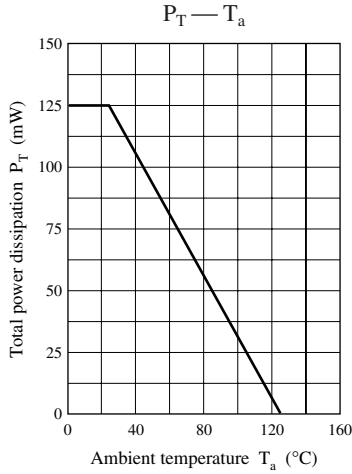
Internal Connection



### ■ 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)	$V_{\text{CBO}}$	$I_{\text{C}} = 10 \mu\text{A}$ , $I_{\text{E}} = 0$	30			V
Emitter-base voltage (Collector open)	$V_{\text{EBO}}$	$I_{\text{E}} = 10 \mu\text{A}$ , $I_{\text{C}} = 0$	3			V
Base-emitter voltage	$V_{\text{BE}}$	$V_{\text{CB}} = 6 \text{ V}$ , $I_{\text{E}} = -1 \text{ mA}$		720		mV
Forward current transfer ratio	$h_{\text{FE}}$	$V_{\text{CB}} = 6 \text{ V}$ , $I_{\text{E}} = -1 \text{ mA}$	65		160	—
Reverse transfer capacitance (Common emitter)	$C_{\text{re}}$	$V_{\text{CB}} = 6 \text{ V}$ , $I_{\text{E}} = -1 \text{ mA}$ , $f = 10.7 \text{ MHz}$		0.8	1.0	pF
Transition frequency	$f_{\text{T}}$	$V_{\text{CB}} = 6 \text{ V}$ , $I_{\text{E}} = -1 \text{ mA}$ , $f = 200 \text{ MHz}$	450	650		MHz
Noise figure	NF	$V_{\text{CB}} = 6 \text{ V}$ , $I_{\text{E}} = -1 \text{ mA}$ , $f = 100 \text{ MHz}$		3.3		dB
Power gain	$G_{\text{p}}$	$V_{\text{CB}} = 6 \text{ V}$ , $I_{\text{E}} = -1 \text{ mA}$ , $f = 100 \text{ MHz}$		24		dB

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



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