

# XN06534 (XN6534)

## Silicon NPN epitaxial planar type

For high-frequency amplification

### ■ Features

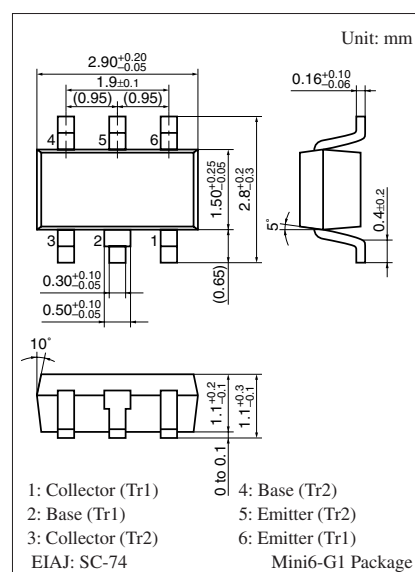
- Two elements incorporated into one package
- Reduction of the mounting area and assembly cost by one half

### ■ Basic Part Number

- 2SC2404 × 2

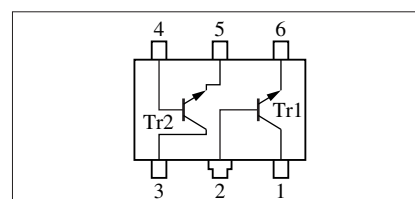
### ■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

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	$P_T$	200	mW
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$



Marking Symbol: 7F

Internal Connection



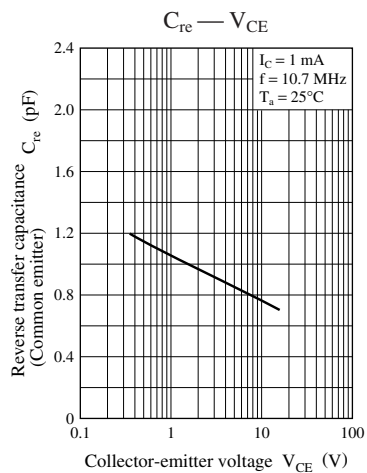
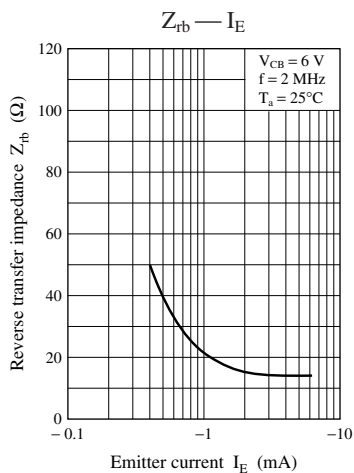
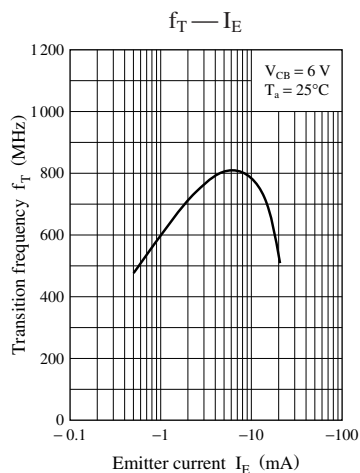
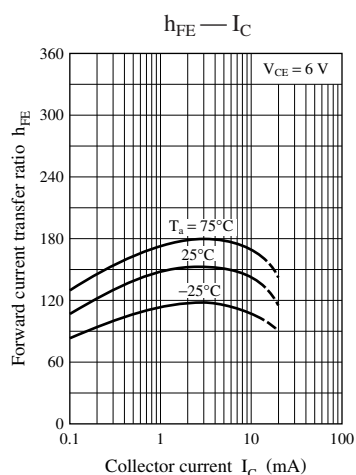
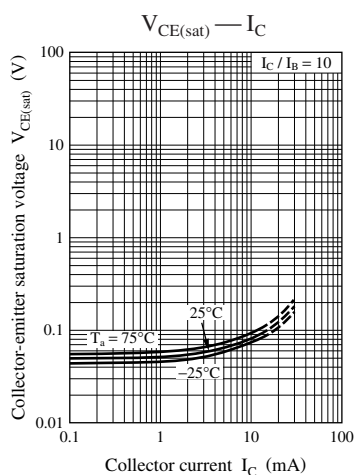
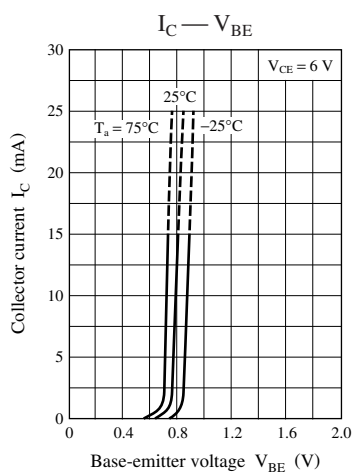
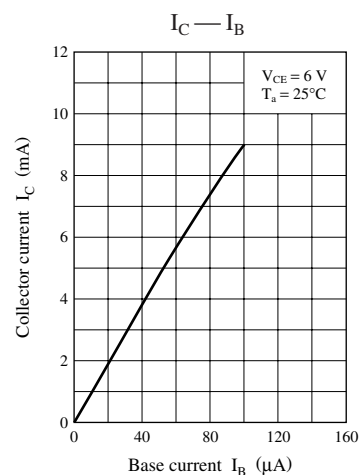
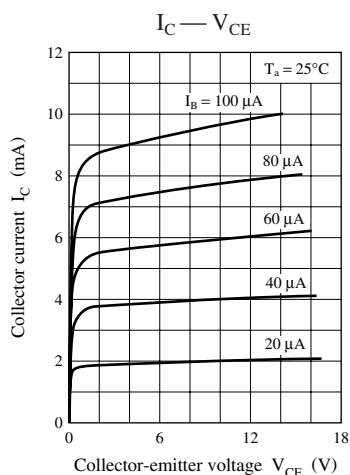
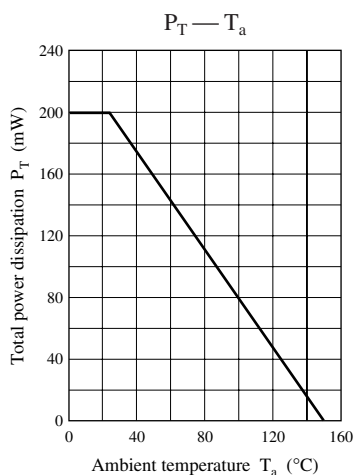
### ■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

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	$h_{FE}$	$V_{CB} = 6\ \text{V}$ , $I_E = -1\ \text{mA}$	40		260	—
$h_{FE}$ ratio *	$h_{FE(\text{Small})}$ $/\text{Large}$	$V_{CB} = 6\ \text{V}$ , $I_E = -1\ \text{mA}$	0.50	0.99		—
Transition frequency	$f_T$	$V_{CB} = 6\ \text{V}$ , $I_E = -1\ \text{mA}$ , $f = 200\ \text{MHz}$	450	650		MHz
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
Power gain	$G_p$	$V_{CB} = 6\ \text{V}$ , $I_E = -1\ \text{mA}$ , $f = 100\ \text{MHz}$		24		dB
Noise figure	NF	$V_{CB} = 6\ \text{V}$ , $I_E = -1\ \text{mA}$ , $f = 100\ \text{MHz}$		3.3		dB

Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

2. \*: Ratio between 2 elements

Note) The part number in the parenthesis shows conventional part number.



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