

# XN6534

## Silicon NPN epitaxial planer transistor

For high-frequency amplification

### ■ Features

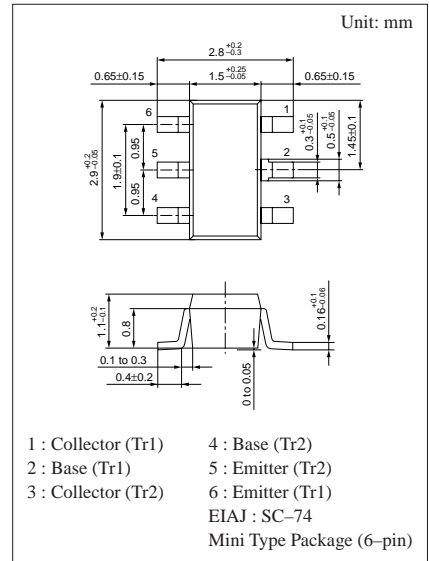
- Two elements incorporated into one package.
- Reduction of the mounting area and assembly cost by one half.

### ■ Basic Part Number of Element

- 2SC2404 × 2 elements

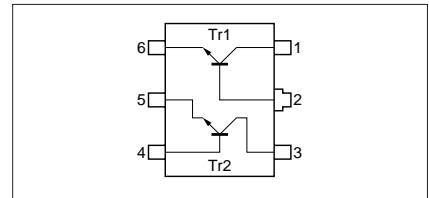
### ■ Absolute Maximum Ratings (Ta=25°C)

	Parameter	Symbol	Ratings	Unit
Rating of element	Collector to base voltage	$V_{CBO}$	30	V
	Collector to emitter voltage	$V_{CEO}$	20	V
	Emitter to base voltage	$V_{EBO}$	3	V
Overall	Collector current	$I_C$	15	mA
	Total power dissipation	$P_T$	200	mW
	Junction temperature	$T_j$	150	°C
	Storage temperature	$T_{sig}$	-55 to +150	°C



Marking Symbol: 7F

Internal Connection

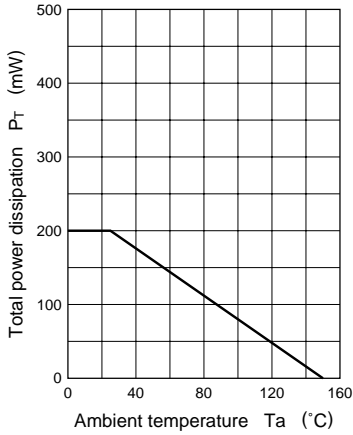


### ■ Electrical Characteristics (Ta=25°C)

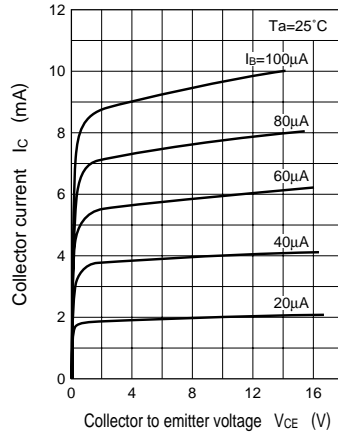
Parameter	Symbol	Conditions	min	typ	max	Unit
Collector to base voltage	$V_{CBO}$	$I_C = 10\mu A, I_E = 0$	30			V
Emitter to base voltage	$V_{EBO}$	$I_E = 10\mu A, I_C = 0$	3			V
Forward current transfer ratio	$h_{FE}$	$V_{CB} = 6V, I_E = -1mA$	40		260	
Forward current transfer $h_{FE}$ ratio	$h_{FE}(\text{small/large})^{*1}$	$V_{CB} = 6V, I_E = -1mA$	0.5	0.99		
Base to emitter voltage	$V_{BE}$	$V_{CB} = 6V, I_E = -1mA$		720		mV
Common emitter reverse transfer capacitance	$C_{re}$	$V_{CB} = 6V, I_E = -1mA, f = 10.7MHz$		0.8	1	pF
Transition frequency	$f_T$	$V_{CB} = 6V, I_E = -1mA, f = 200MHz$	450	650		MHz
Noise figure	NF	$V_{CB} = 6V, I_E = -1mA, f = 100MHz$		3.3		dB
Power gain	PG	$V_{CB} = 6V, I_E = -1mA, f = 100MHz$		24		dB

\*1 Ratio between 2 elements

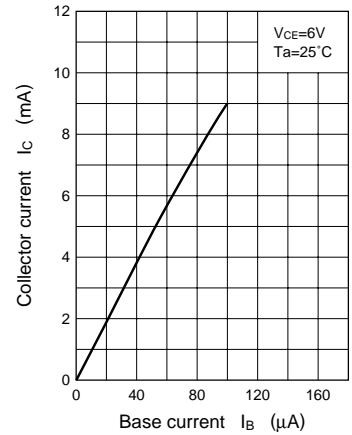
$P_T - T_a$



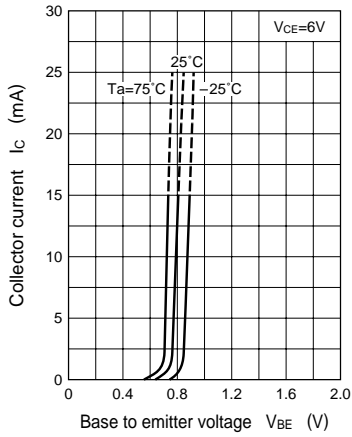
$I_C - V_{CE}$



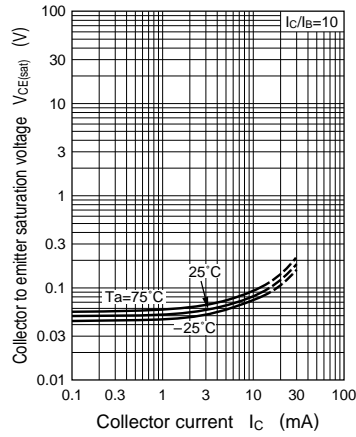
$I_C - I_B$



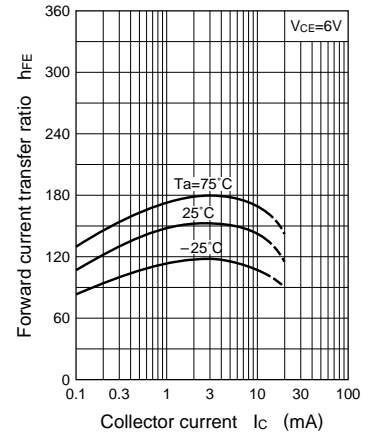
$I_C - V_{BE}$



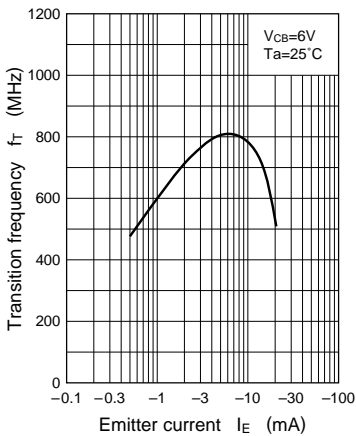
$V_{CE(sat)} - I_C$



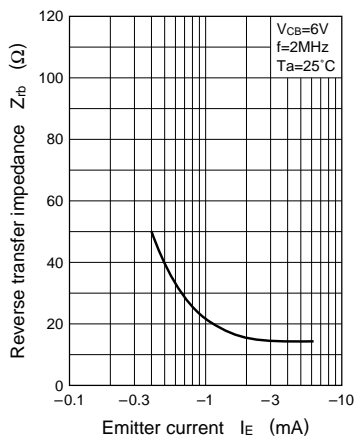
$h_{FE} - I_C$



$f_T - I_E$



$Z_{rb} - I_E$



$C_{re} - V_{CE}$

