

XP05534

Silicon NPN epitaxial planar type

For high-frequency amplification

■ Features

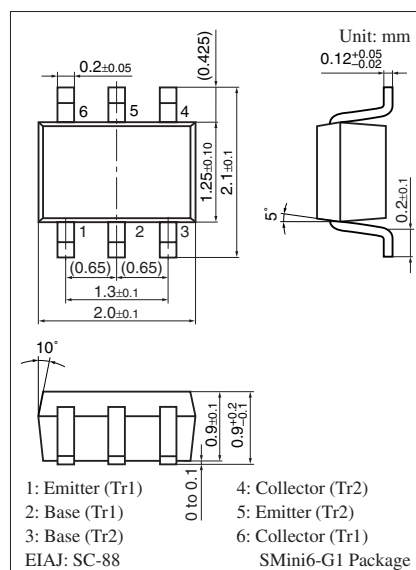
- High transition frequency f_T
- Two elements incorporated into one package
- Reduction of the mounting area and assembly cost by one half

■ Basic Part Number

- 2SC2404 \times 2

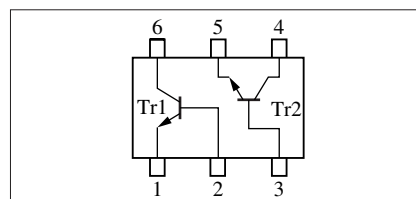
■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

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



Marking Symbol: IS

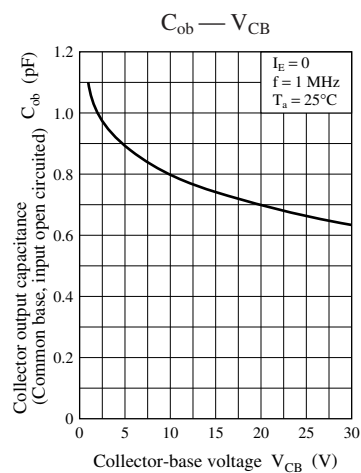
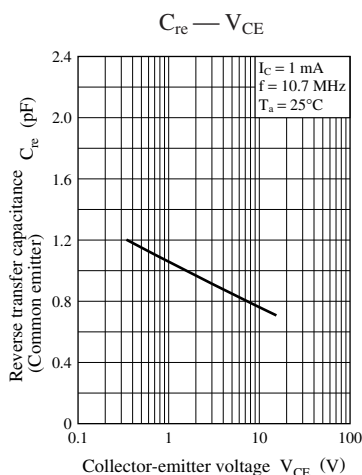
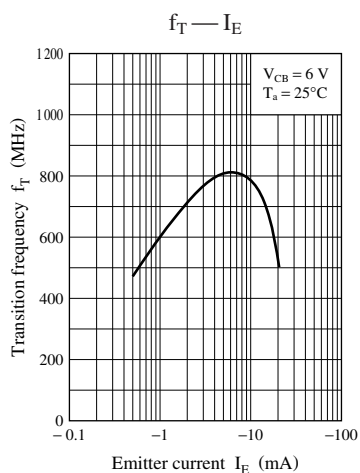
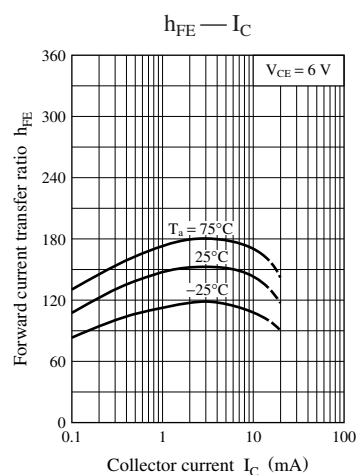
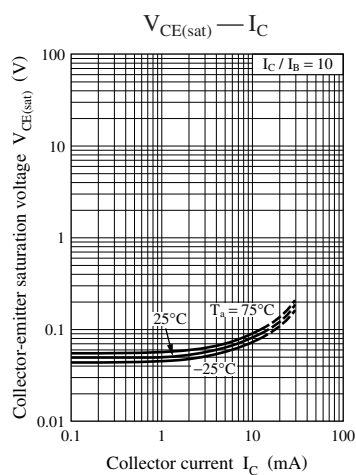
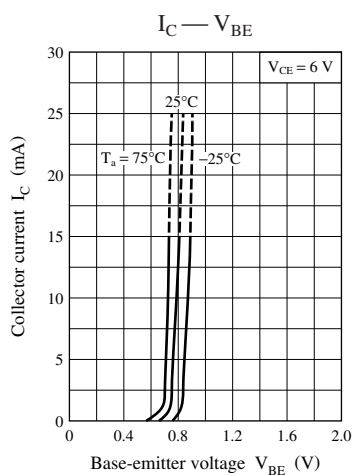
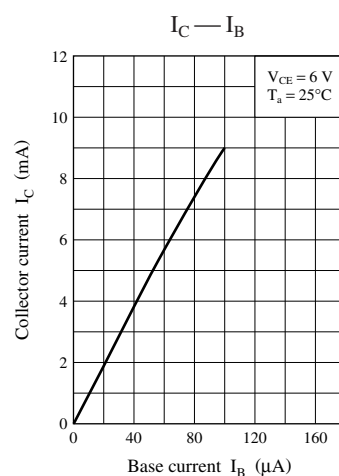
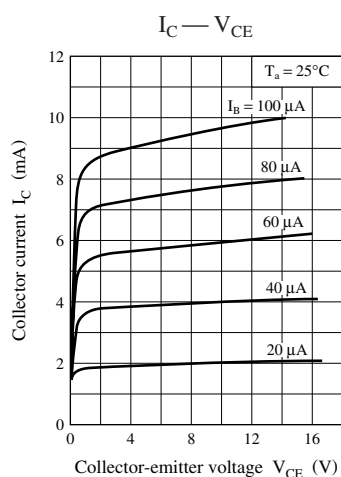
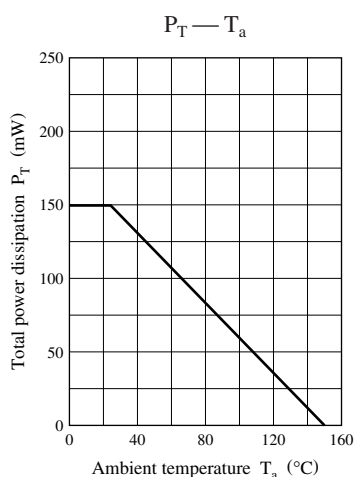
Internal Connection

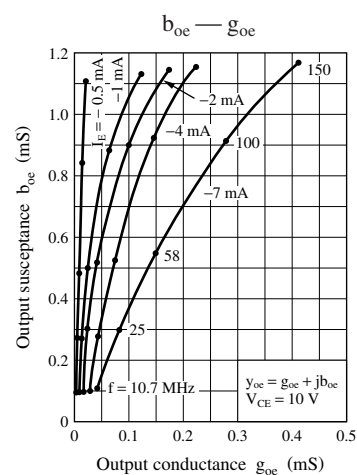
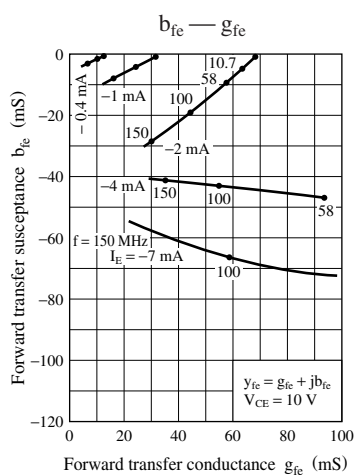
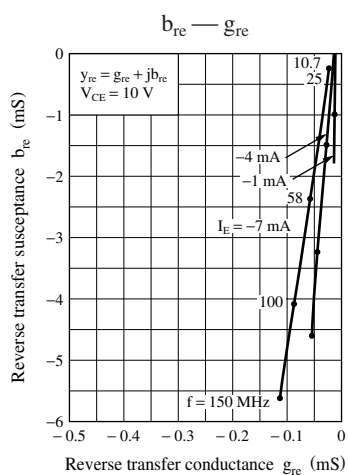
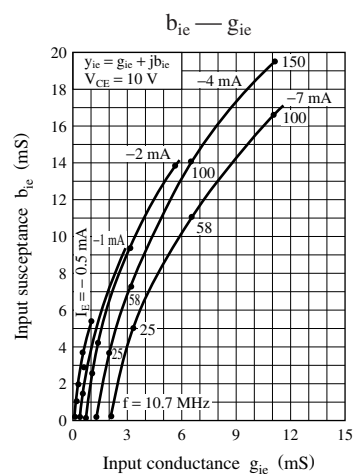
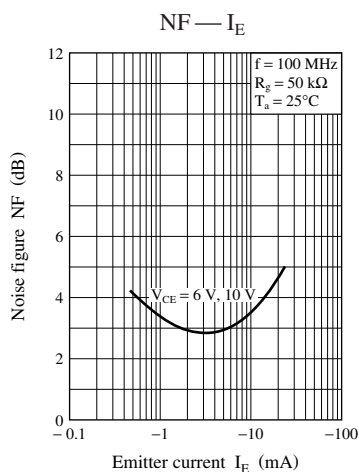
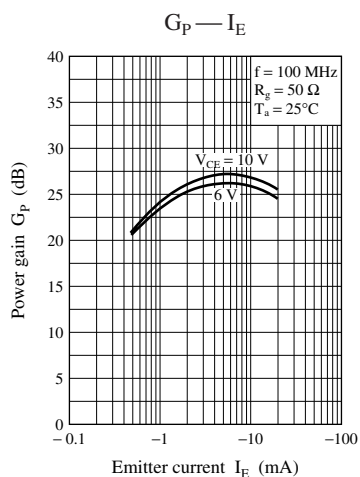


■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

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			—
Transition frequency	f_T	$V_{CB} = 6\ \text{V}$, $I_E = -1\ \text{mA}$, $f = 100\ \text{MHz}$	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) Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.





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