XP06534 (XP6534)

Silicon NPN epitaxial planer transistor

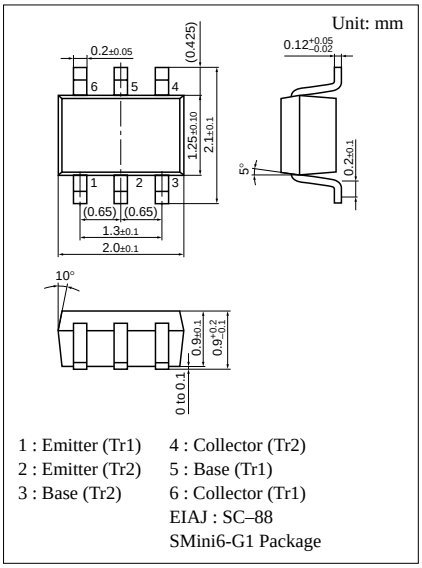
For high-frequency amplification

Features

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

Basic Part Number of Element

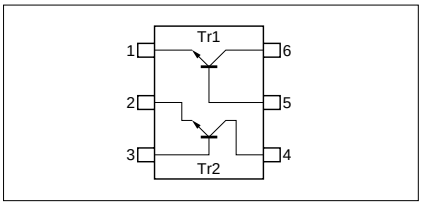
- 2SC2404 × 2 elements



1 : Emitter (Tr1)
2 : Emitter (Tr2)
3 : Base (Tr2)
4 : Collector (Tr2)
5 : Base (Tr1)
6 : Collector (Tr1)
EIAJ : SC–88
SMini6-G1 Package

Marking Symbol: 7F

Internal Connection



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
	Collector current	I_C	15	mA
Overall	Total power dissipation	P_T	150	mW
	Junction temperature	T_j	150	˚C
	Storage temperature	T_{stg}	–55 to +150	˚C

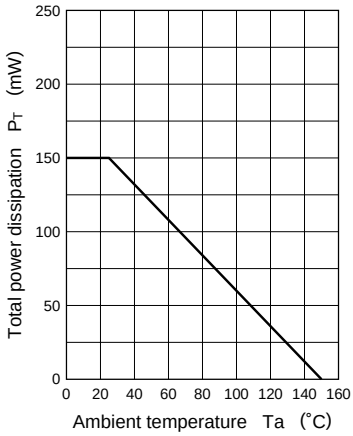
Electrical Characteristics (Ta=25˚C)

Parameter	Symbol	Conditions	min	typ	max	Unit
Collector to base voltage	V_{CBO}	I_C = 10μA, I_E = 0	30			V
Emitter to base voltage	V_{EBO}	I_E = 10μA, 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} (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

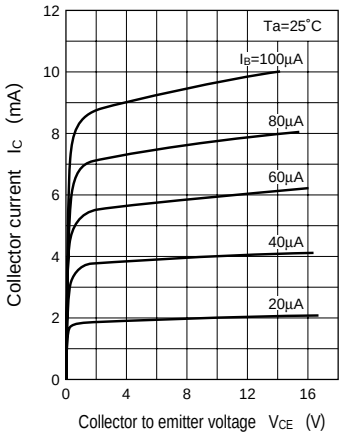
*1 Ratio between 2 elements

Note) The Part number in the Parenthesis shows conventional part number.

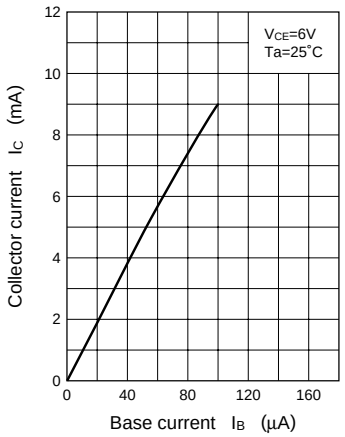
P_T — Ta



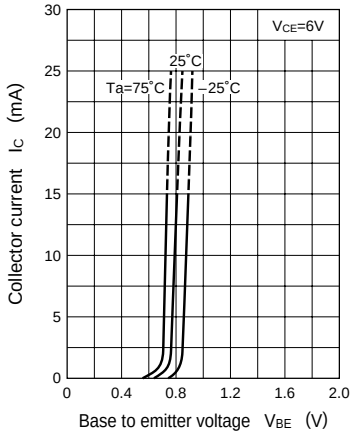
I_C — V_{CE}



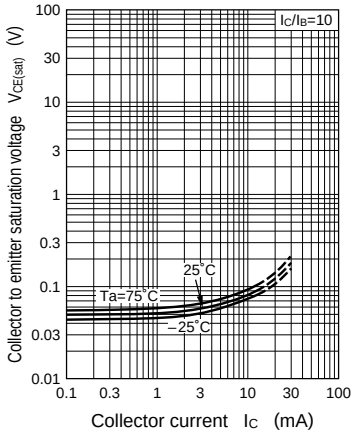
I_C — I_B



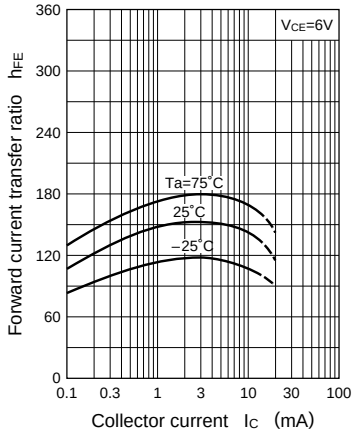
I_C — V_{BE}



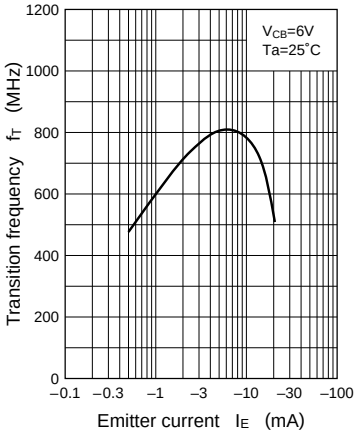
$V_{CE(sat)}$ — I_C



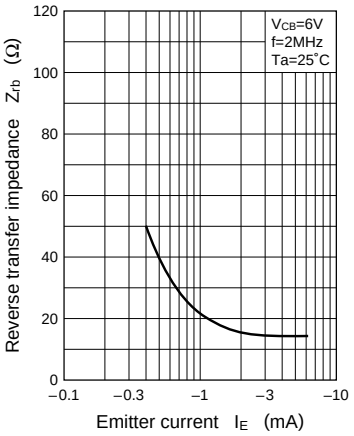
h_{FE} — I_C



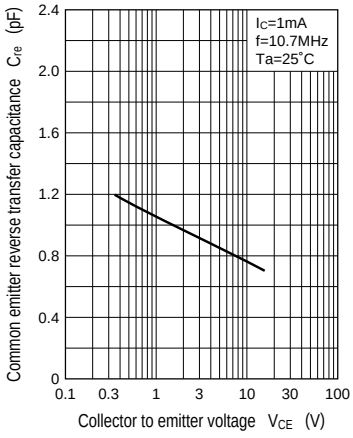
f_T — I_E



Z_{rb} — I_E



C_{re} — V_{CE}



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