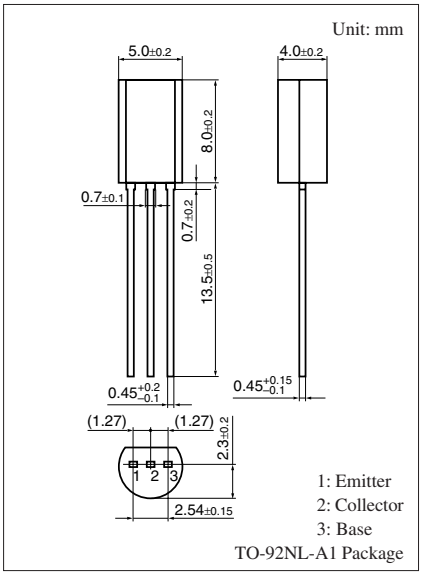
2SB1592

Silicon PNP epitaxial planar type

For low-frequency power amplification



■ Features

- Low collector-emitter saturation voltage $V_{CE(sat)}$
- Allowing supply with the radial taping

■ Absolute Maximum Ratings $T_a = 25°C$

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V_{CBO}	−30	V
Collector-emitter voltage (Base open)	V_{CEO}	−25	V
Emitter-base voltage (Collector open)	V_{EBO}	−11	V
Collector current	I_C	−3	A
Peak collector current	I_{CP}	−10	A
Collector power dissipation	P_C	1.0	W
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	−55 to +150	°C

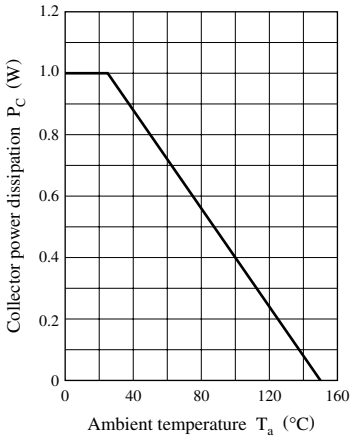
Note) ∗: Pulse width ≤ 1 ms, 1 shot

■ Electrical Characteristics $T_a = 25°C \pm 3°C$

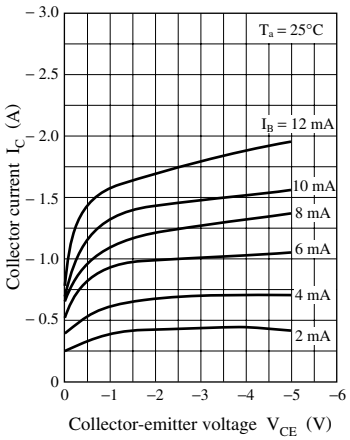
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base voltage (Emitter open)	V_{CBO}	$I_C = -10$ μA, $I_E = 0$	−30			V
Collector-emitter voltage (Base open)	V_{CEO}	$I_C = -1$ mA, $I_B = 0$	−25			V
Emitter-base voltage (Collector open)	V_{EBO}	$I_E = -10$ μA, $I_C = 0$	−11			V
Forward current transfer ratio *	h_{FE}	$V_{CE} = -2$ V, $I_C = -1.4$ A	130		450	—
Collector-emitter saturation voltage *	$V_{CE(sat)}$	$I_C = -1.4$ A, $I_B = -25$ mA		− 0.16	− 0.22	V
Transition frequency	f_T	$V_{CB} = -6$ V, $I_E = 50$ mA, f = 200 MHz		150		MHz
Collector output capacitance (Common base, input open circuited)	C_{ob}	$V_{CB} = -10$ V, $I_E = 0$, f = 1 MHz			85	pF

Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.
2. ∗: Pulse measurement

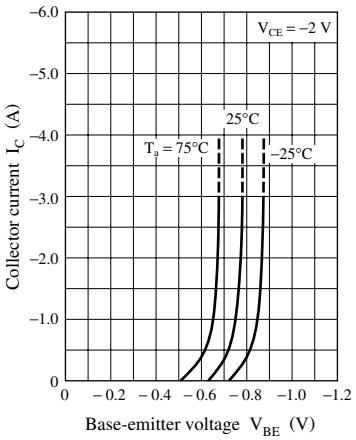
P_C — T_a



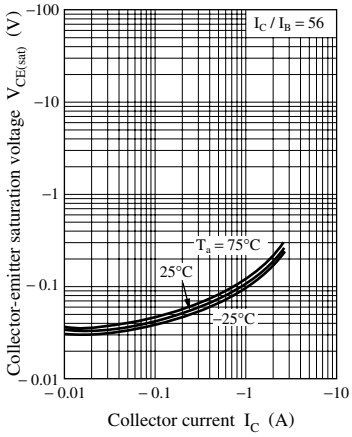
I_C — V_{CE}



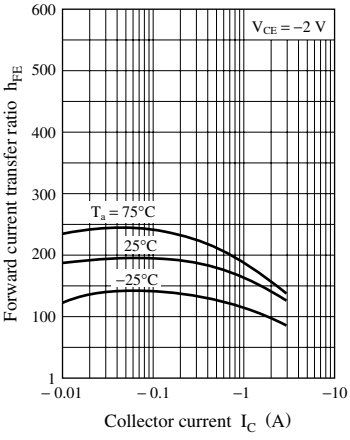
I_C — V_{BE}



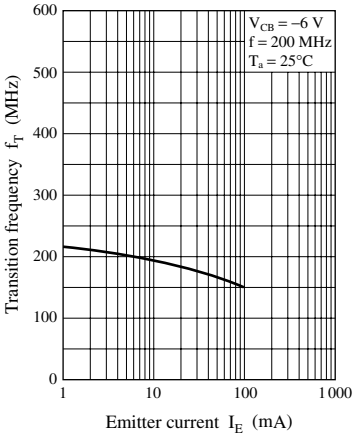
$V_{CE(sat)}$ — I_C



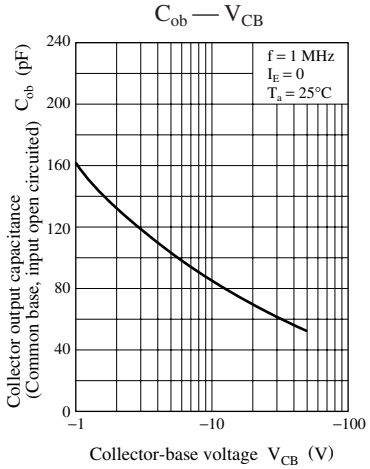
h_{FE} — I_C



f_T — I_E



C_{ob} — V_{CB}



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