

2SB1592

Silicon PNP epitaxial planer type

For low-frequency amplification

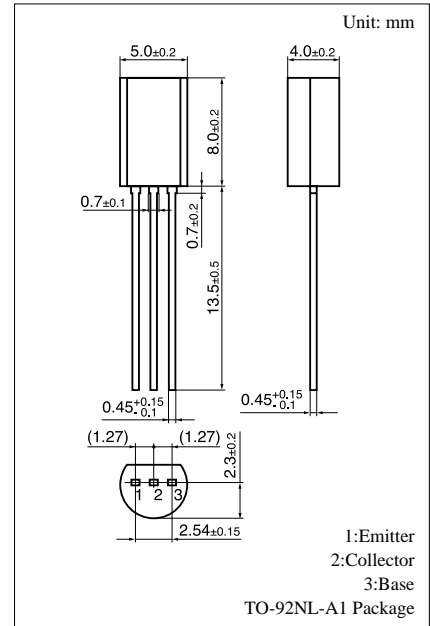
Features

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

Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	-30	V
Collector to emitter voltage	V_{CEO}	-25	V
Emitter to base voltage	V_{EBO}	-11	V
Peak collector current	I_{CP}^*	-10	A
Collector current	I_C	-3	A
Collector power dissipation	P_C	1	W
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 ~ +150	°C

* Applied are shot pulse of ≤ 1 ms width



Electrical Characteristics (Ta=25°C)

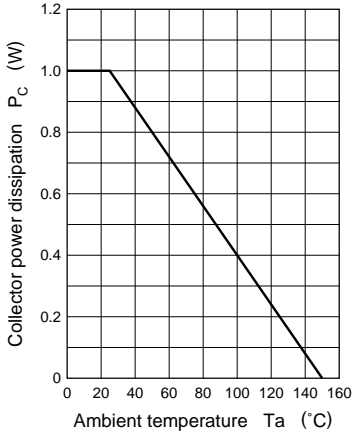
Parameter	Symbol	Conditions	min	typ	max	Unit
Collector to base voltage	V_{CBO}	$I_C = -10\mu A, I_E = 0$	-30			V
Collector to emitter voltage	V_{CEO}	$I_C = -1mA, I_B = 0$	-25			V
Emitter to base voltage	V_{EBO}	$I_E = -10\mu A, I_C = 0$	-11			V
Forward current transfer ratio	h_{FE}^{*1}	$V_{CE} = -2V, I_C = -1.4A^{*2}$	90		450	
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_C = -1.4A, I_B = -25mA^{*2}$		-0.16	-0.22	V
Transition frequency	f_T	$V_{CB} = -6V, I_E = 50mA, f = 200MHz$		150		MHz
Collector output capacitance	C_{ob}	$V_{CB} = -10V, I_E = 0, f = 1MHz$			85	pF

*2 Pulse measurement

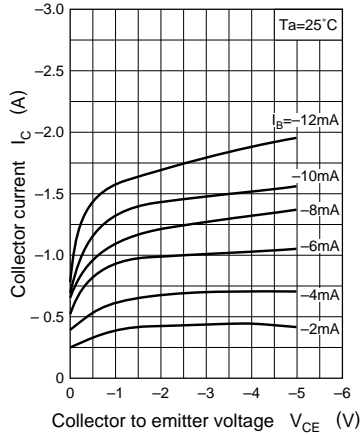
*1 h_{FE} Rank classification

Rank	Q	R
h_{FE}	90 ~ 180	130 ~ 450

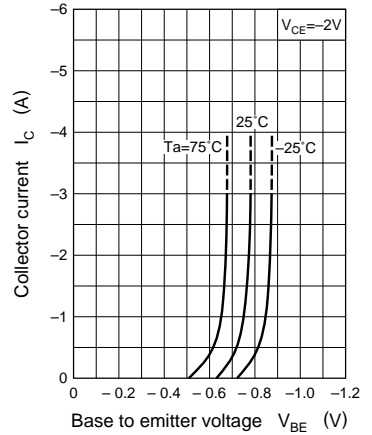
$P_C - T_a$



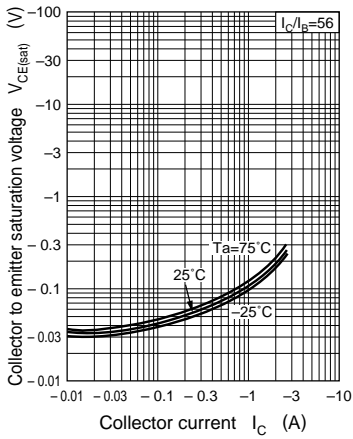
$I_C - V_{CE}$



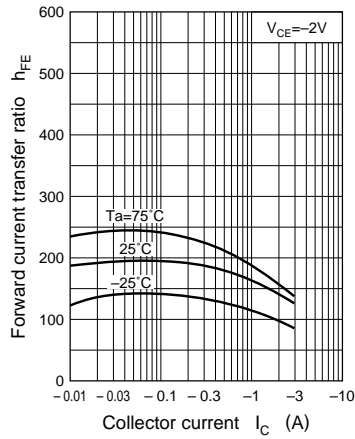
$I_C - V_{BE}$



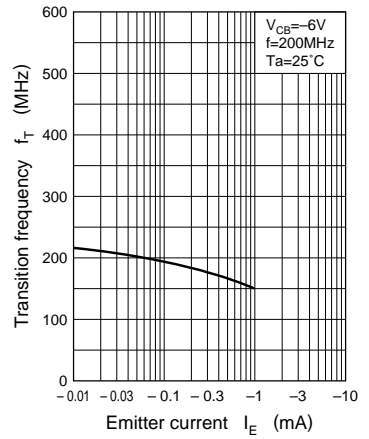
$V_{CE(sat)} - I_C$



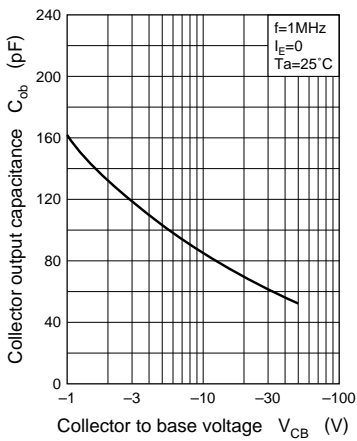
$h_{FE} - I_C$



$f_T - I_E$



$C_{ob} - V_{CB}$



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