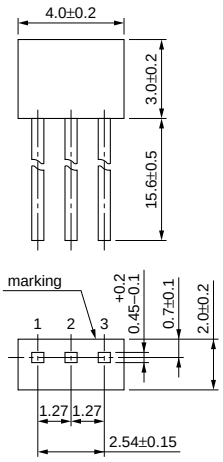
2SC3311A

Silicon NPN epitaxial planer type

For low-frequency amplification
Complementary to 2SA1309A

Unit: mm



1:Emitter
2:Collector
3:Base

EIAJ:SC–72
New S Type Package

Features

- Optimum for high-density mounting.
- Allowing supply with the radial taping.

Absolute Maximum Ratings (Ta=25˚C)

Parameter	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	60	V
Collector to emitter voltage	V_{CEO}	50	V
Emitter to base voltage	V_{EBO}	7	V
Peak collector current	I_{CP}	200	mA
Collector current	I_C	100	mA
Collector power dissipation	P_C	300	mW
Junction temperature	T_j	150	˚C
Storage temperature	T_{stg}	–55 ~ +150	˚C

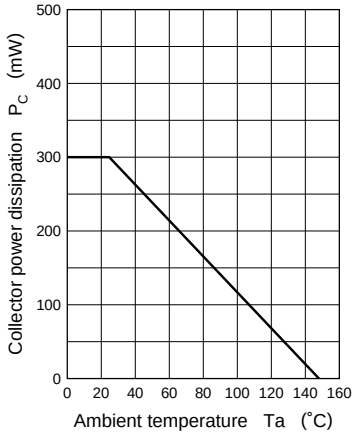
Electrical Characteristics (Ta=25˚C)

Parameter	Symbol	Conditions	min	typ	max	Unit
Collector cutoff current	I_{CBO}	V_{CB} = 10V, I_E = 0			0.1	μA
	I_{CEO}	V_{CE} = 10V, I_B = 0			1	μA
Collector to base voltage	V_{CBO}	I_C = 10μA, I_E = 0	60			V
Collector to emitter voltage	V_{CEO}	I_C = 2mA, I_B = 0	50			V
Emitter to base voltage	V_{EBO}	I_E = 10μA, I_C = 0	7			V
Forward current transfer ratio	h_{FE}*	V_{CE} = 10V, I_C = 2mA	160		460	
Collector to emitter saturation voltage	$V_{CE(sat)}$	I_C = 100mA, I_B = 10mA		0.1	0.3	V
Transition frequency	f_T	V_{CB} = 10V, I_E = –2mA, f = 200MHz		150		MHz
Collector output capacitance	C_{ob}	V_{CB} = 10V, I_E = 0, f = 1MHz		3.5		pF

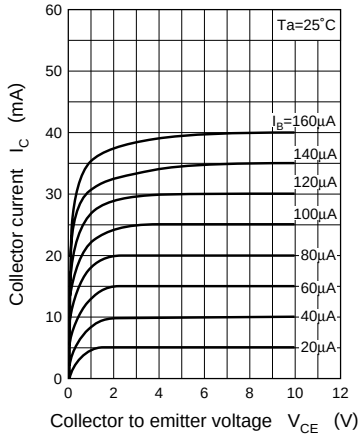
*h_{FE} Rank classification

Rank	Q	R	S
h_{FE}	160 ~ 260	210 ~ 340	290 ~ 460

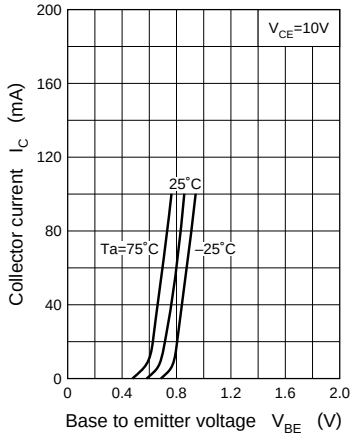
P_C — Ta



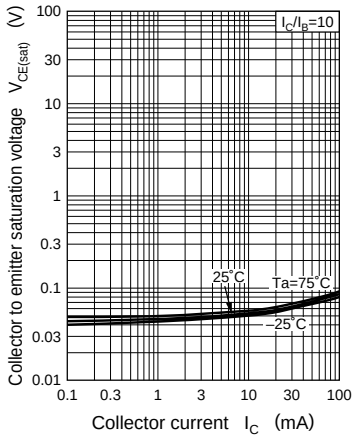
I_C — V_{CE}



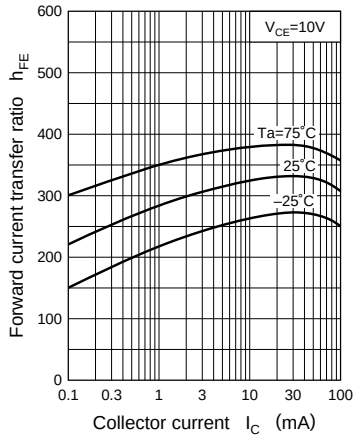
I_C — V_{BE}



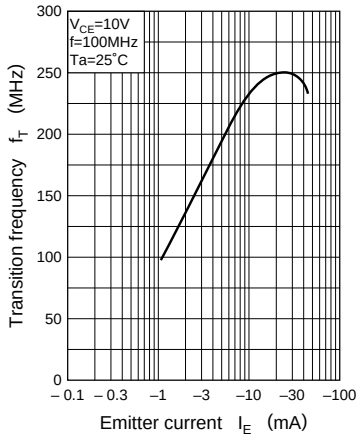
$V_{CE(sat)}$ — I_C



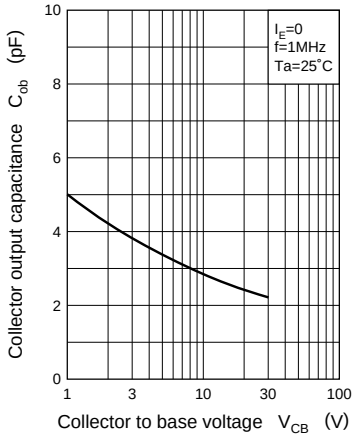
h_{FE} — I_C



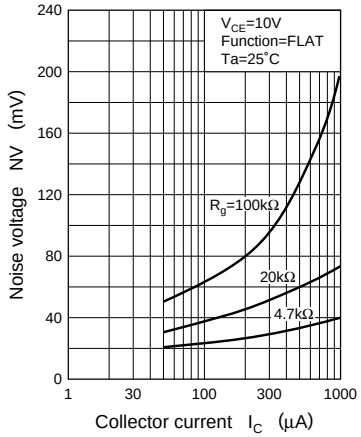
f_T — I_E



C_{ob} — V_{CB}



NV — I_C



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