

2SC3354

Silicon NPN epitaxial planer type

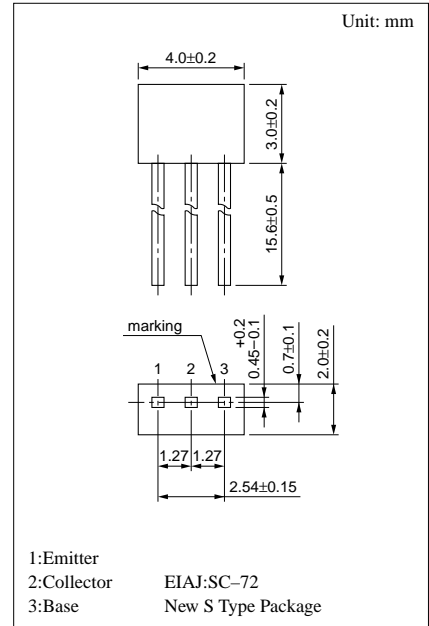
For high-frequency amplification/oscillation/mixing

■ Features

- Optimum for high-density mounting.
- Allowing supply with the radial taping.
- High transition frequency f_T .

■ Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Ratings	Unit
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	50	mA
Collector power dissipation	P_C	300	mW
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 ~ +150	°C



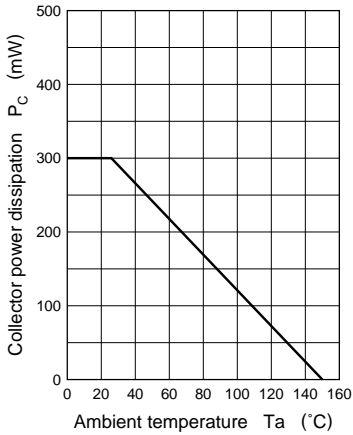
■ Electrical Characteristics (Ta=25°C)

Parameter	Symbol	Conditions	min	typ	max	Unit
Collector to base voltage	V_{CBO}	$I_C = 100\mu A, I_E = 0$	30			V
Emitter to base voltage	V_{EBO}	$I_E = 10\mu A, I_C = 0$	3			V
Forward current transfer ratio	h_{FE}	$V_{CB} = 10V, I_E = -2mA$	25		250	
Base to emitter voltage	V_{BE}	$V_{CB} = 10V, I_E = -2mA$		720		mV
Common base reverse transfer capacitance	C_{rb}	$V_{CE} = 6V, I_C = 0, f = 1MHz$		0.8		pF
Common emitter reverse transfer capacitance	C_{re}	$V_{CE} = 10V, I_C = 1mA, f = 10.7MHz$		1	1.5	pF
Transition frequency	f_T^*	$V_{CB} = 10V, I_E = -15mA, f = 200MHz$	600	1200	1600	MHz
Power gain	PG	$V_{CB} = 10V, I_E = -1mA, f = 100MHz$		17		dB

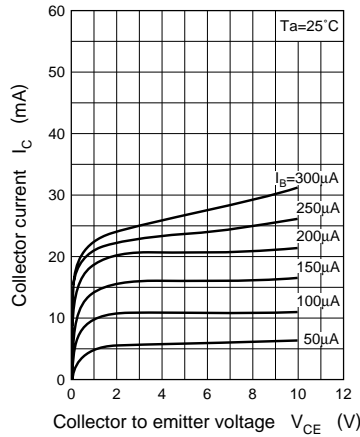
* h_{FE} Rank classification

Rank	T	S
f_T (MHz)	600 ~ 1300	900 ~ 1600

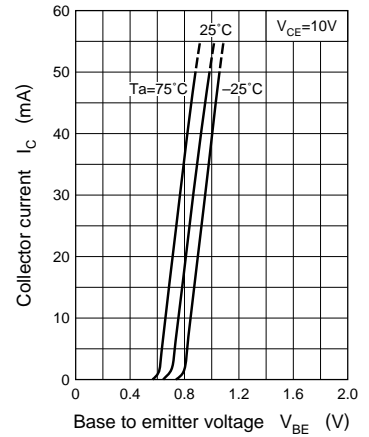
$P_C - T_a$



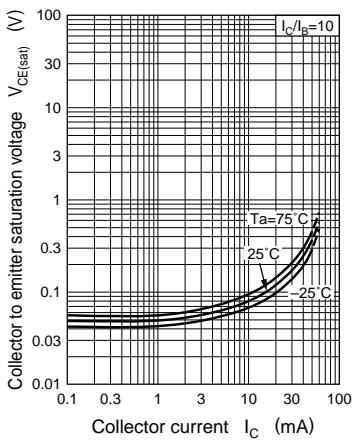
$I_C - V_{CE}$



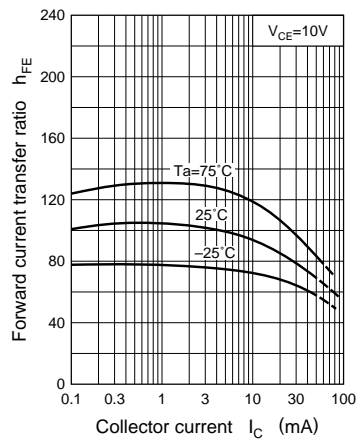
$I_C - V_{BE}$



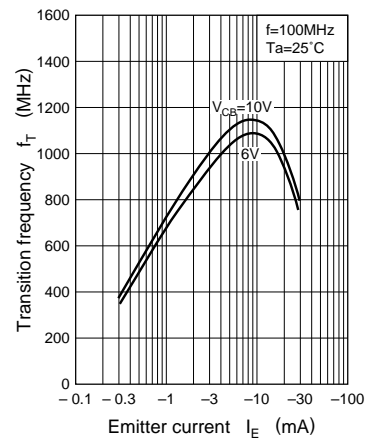
$V_{CE(sat)} - I_C$



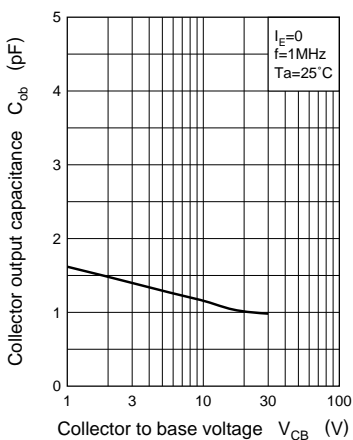
$h_{FE} - I_C$



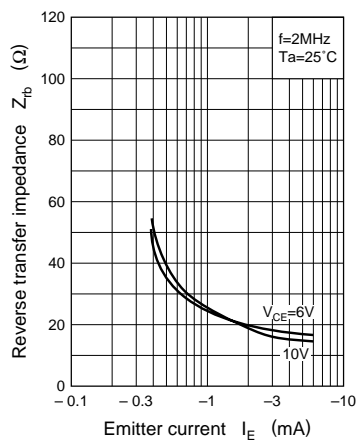
$f_T - I_E$



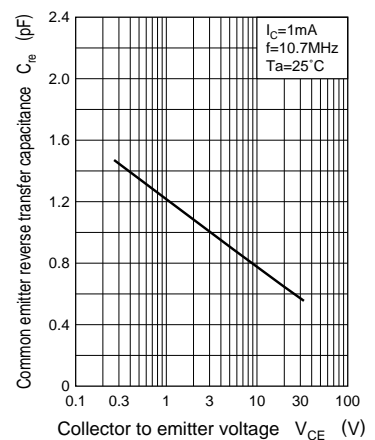
$C_{ob} - V_{CB}$



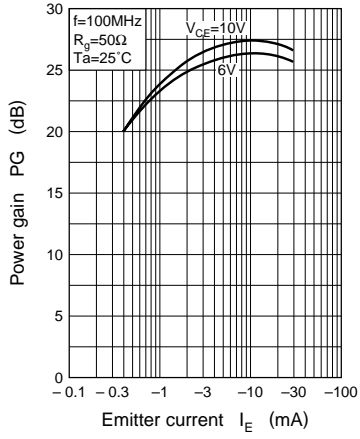
$Z_{rb} - I_E$



$C_{re} - V_{CE}$



PG — I_E



NF — I_E

