

2SA1034, 2SA1035

Silicon PNP epitaxial planer type

For low-frequency and low-noise amplification

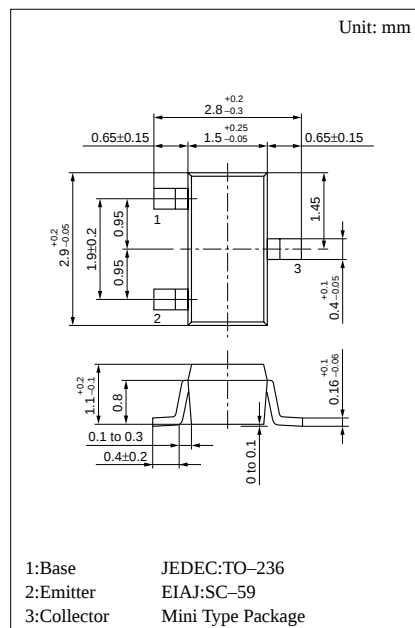
Complementary to 2SC2405 and 2SC2406

■ Features

- Low noise voltage NV.
- High forward current transfer ratio h_{FE} .
- Mini type package, allowing downsizing of the equipment and automatic insertion through the tape packing and the magazine packing.

■ Absolute Maximum Ratings (Ta=25°C)

Parameter		Symbol	Ratings	Unit
Collector to base voltage	2SA1034	V_{CBO}	-35	V
	2SA1035		-55	
Collector to emitter voltage	2SA1034	V_{CEO}	-35	V
	2SA1035		-55	
Emitter to base voltage		V_{EBO}	-5	V
Peak collector current		I_{CP}	-100	mA
Collector current		I_C	-50	mA
Collector power dissipation		P_C	200	mW
Junction temperature		T_j	150	°C
Storage temperature		T_{stg}	-55 ~ +150	°C



Marking symbol : F(2SA1034)
H(2SA1035)

■ Electrical Characteristics (Ta=25°C)

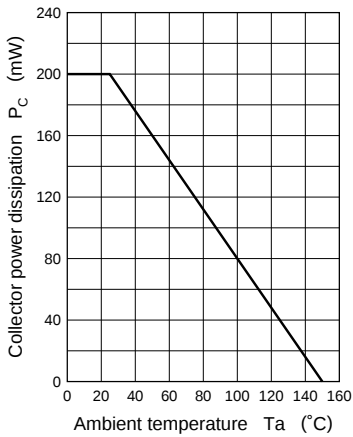
Parameter		Symbol	Conditions	min	typ	max	Unit
Collector cutoff current		I_{CBO}	$V_{CB} = -10V, I_E = 0$			-100	nA
		I_{CEO}	$V_{CE} = -10V, I_B = 0$			-1	μA
Collector to base voltage	2SA1034	V_{CBO}	$I_C = -10\mu A, I_E = 0$	-35			V
	2SA1035			-55			
Collector to emitter voltage	2SA1034	V_{CEO}	$I_C = -2mA, I_B = 0$	-35			V
	2SA1035			-55			
Emitter to base voltage		V_{EBO}	$I_E = -10\mu A, I_C = 0$	-5			V
Forward current transfer ratio		h_{FE}^{*1}	$V_{CE} = -5V, I_C = -2mA$	180		700	
Collector to emitter saturation voltage		$V_{CE(sat)}$	$I_C = -100mA, I_B = -10mA^{*2}$		-0.7	-0.6	V
Base to emitter voltage		V_{BE}	$V_{CE} = -1V, I_C = -100mA^{*2}$		200	-1.0	V
Transition frequency		f_T	$V_{CB} = -5V, I_E = 2mA, f = 200MHz$				MHz
Noise voltage		NV	$V_{CE} = -10V, I_C = -1mA, G_V = 80dB$ $R_g = 100k\Omega, \text{Function} = \text{FLAT}$			150	mV

^{*}h_{FE1} Rank classification

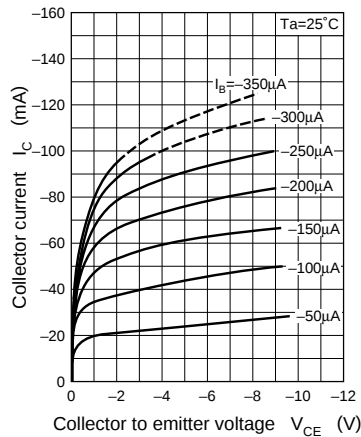
*2 Pulse measurement

Rank		R	S	T
h_{FE}		180 ~ 360	260 ~ 520	360 ~ 700
Marking Symbol	2SA1034	FR	FS	FT
	2SA1035	HR	HS	HT

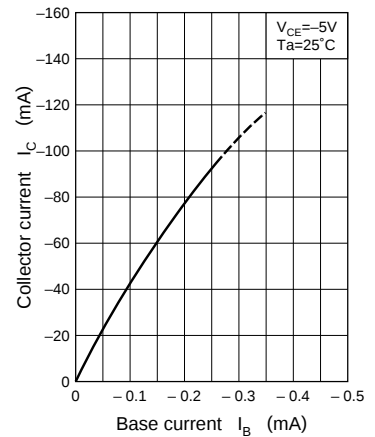
$P_C - T_a$



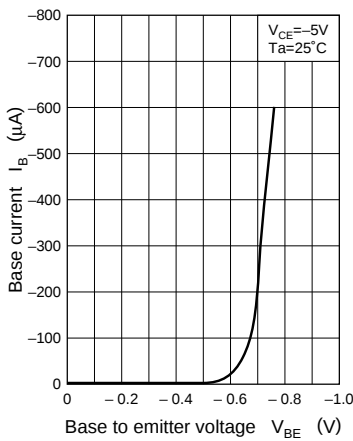
$I_C - V_{CE}$



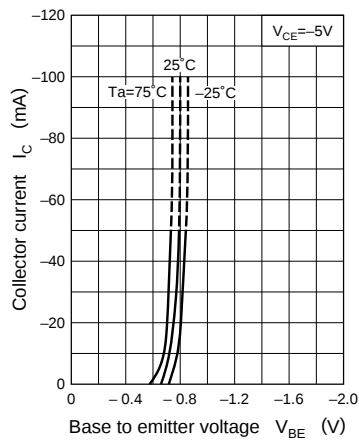
$I_C - I_B$



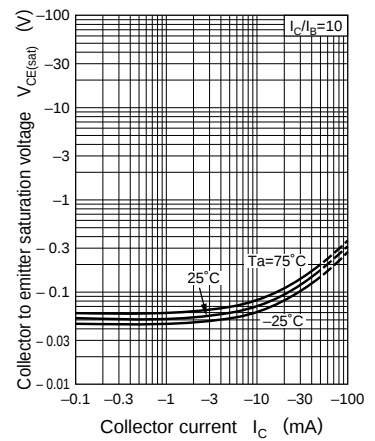
$I_B - V_{BE}$



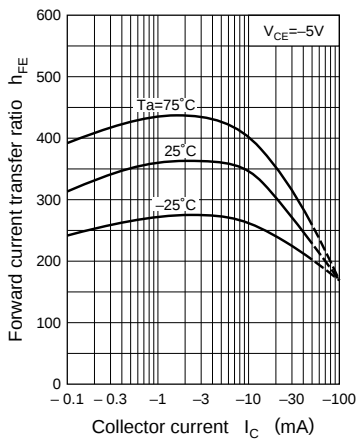
$I_C - V_{BE}$



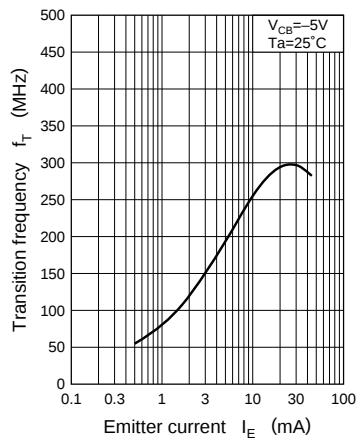
$V_{CE(sat)} - I_C$



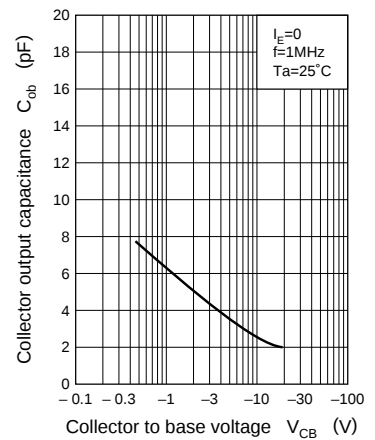
$h_{FE} - I_C$

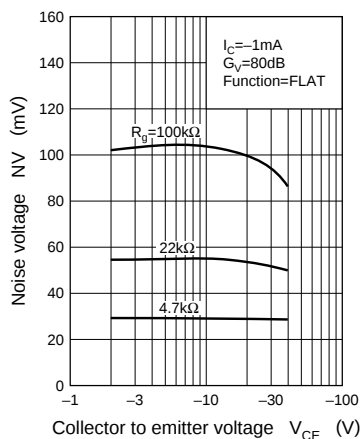
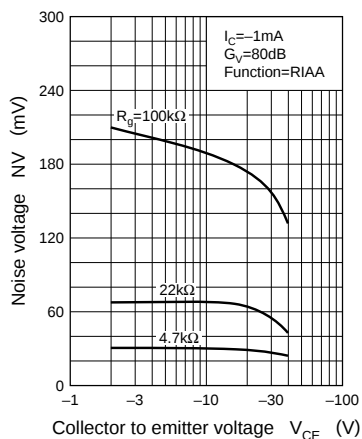
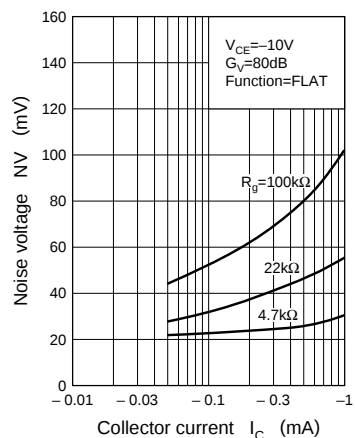
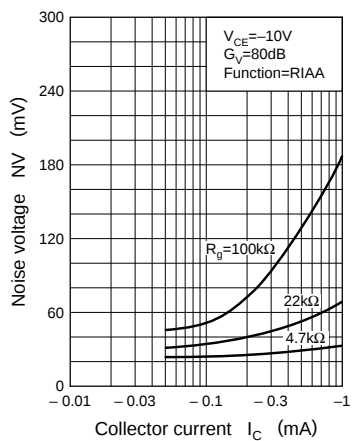
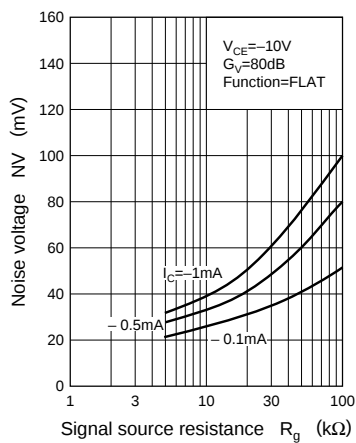


$f_T - I_E$



$C_{ob} - V_{CB}$



NV — V_{CE} NV — V_{CE} NV — I_C NV — I_C NV — R_g NV — R_g 