

2SC2405, 2SC2406

Silicon NPN epitaxial planer type

For low-frequency and low-noise amplification

Complementary to 2SA1034 and 2SA1035

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)

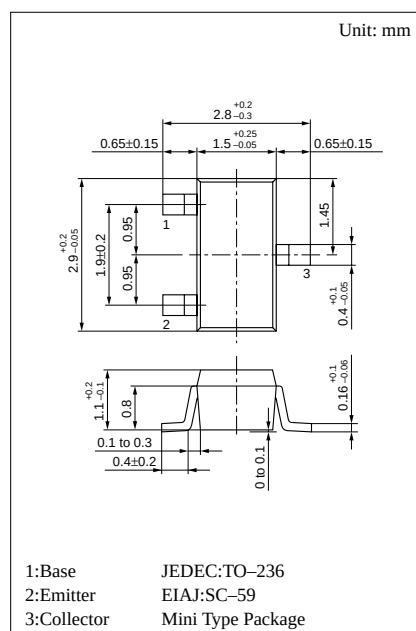
Parameter		Symbol	Ratings	Unit
Collector to base voltage	2SC2405	V_{CBO}	35	V
	2SC2406		55	
Collector to emitter voltage	2SC2405	V_{CEO}	35	V
	2SC2406		55	
Emitter to base voltage		V_{EBO}	5	V
Peak collector current		I_{CP}	100	mA
Collector current		I_C	50	mA
Collector power dissipation		P_C	200	mW
Junction temperature		T_j	150	°C
Storage temperature		T_{stg}	-55 ~ +150	°C

Electrical Characteristics (Ta=25°C)

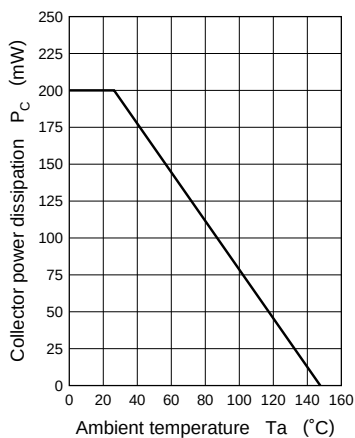
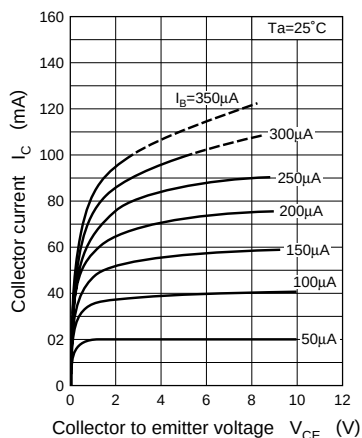
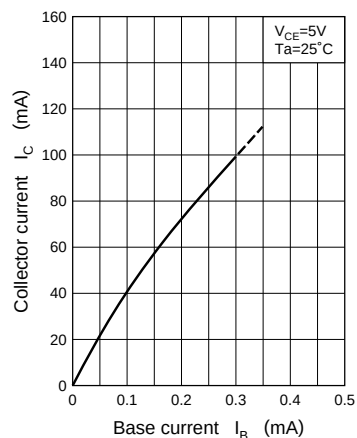
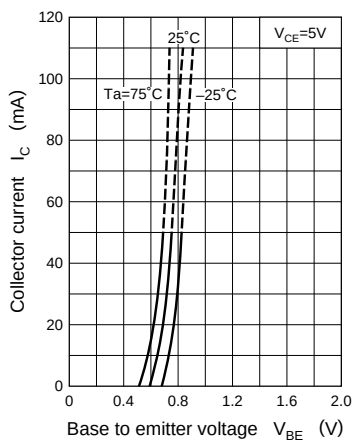
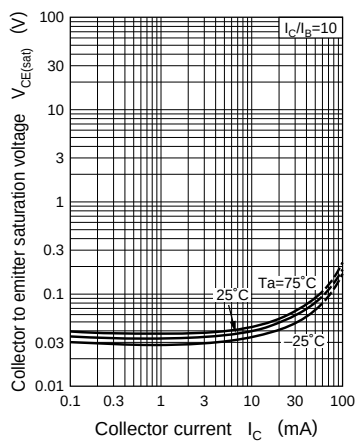
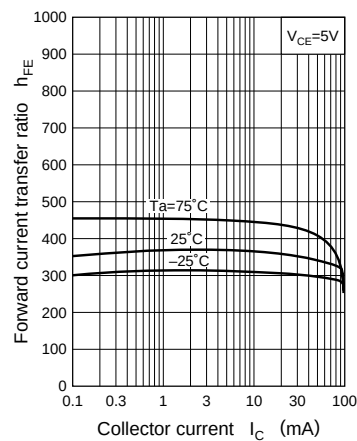
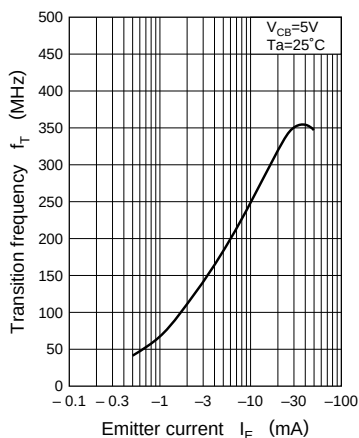
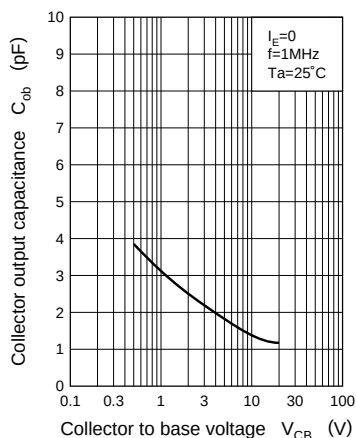
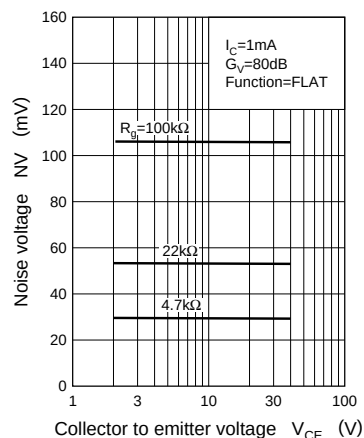
Parameter	Symbol	Conditions	min	typ	max	Unit
Collector cutoff current	I _{CBO}	V _{CB} = 10V, I _E = 0			100	nA
	I _{CEO}	V _{CE} = 10V, I _B = 0			1	μA
Collector to base voltage	V _{CBO}	I _C = 10μA, I _E = 0	2SC2405	35		V
			2SC2406	55		
Collector to emitter voltage	V _{CEO}	I _C = 2mA, I _B = 0	2SC2405	35		V
			2SC2406	55		
Emitter to base voltage	V _{EBO}	I _E = 10μA, I _C = 0	5			V
Forward current transfer ratio	h _{FE} *	V _{CB} = 5V, I _E = -2mA	180		700	
Collector to emitter saturation voltage	V _{CE(sat)}	I _C = 100mA, I _B = 10mA			0.6	V
Base to emitter voltage	V _{BE}	V _{CE} = 1V, I _C = 100mA		0.7	1	V
Transition frequency	f _T	V _{CB} = 5V, I _E = -2mA, f = 200MHz		200		MHz
Noise voltage	NV	V _{CE} = 10V, I _C = 1mA, G _v = 80dB R _g = 100kΩ, Function = FLAT		110		mV

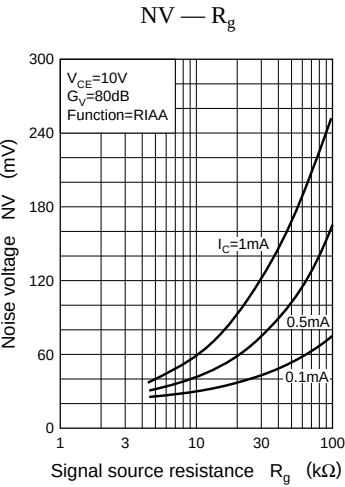
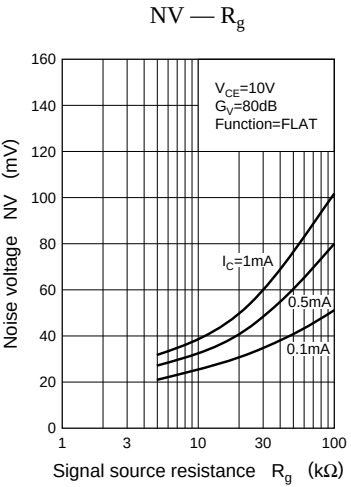
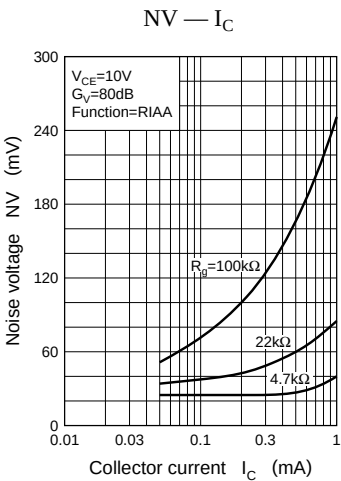
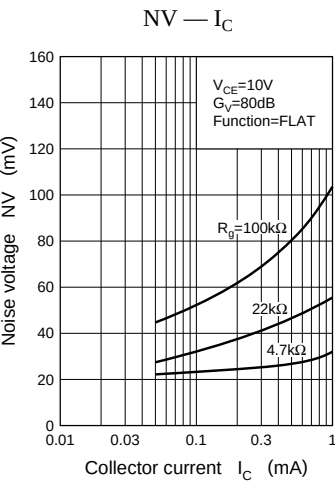
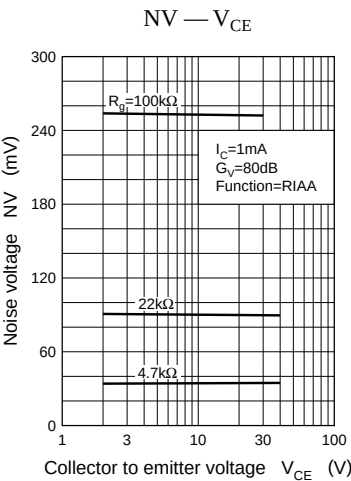
*h_{FE} Rank classification

Rank		R	S	T
h _{FE}		180 ~ 360	260 ~ 520	360 ~ 700
Marking Symbol	2SC2405	SR	SS	ST
	2SC2406	TR	TS	TT



Marking symbol : S(2SC2405)
T(2SC2406)

$P_C - T_a$  $I_C - V_{CE}$  $I_C - I_B$  $I_C - V_{BE}$  $V_{CE(sat)} - I_C$  $h_{FE} - I_C$  $f_T - I_E$  $C_{ob} - V_{CB}$  $NV - V_{CE}$ 



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