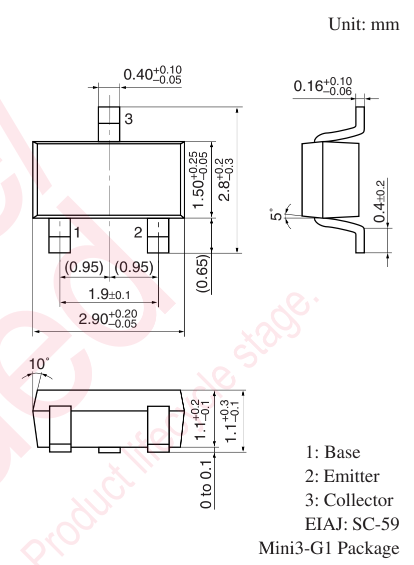
2SA1034, 2SA1035

Silicon PNP epitaxial planar type

For low-frequency and low-noise amplification
Complementary to 2SC2405, 2SC2406



Marking Symbol:

- 2SA1034: F
- 2SA1035: H

■ 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 $T_a = 25°C$

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

■ Electrical Characteristics $T_a = 25°C \pm 3°C$

Parameter		Symbol	Conditions	Min	Typ	Max	Unit
Collector-base voltage (Emitter open)	2SA1034	V_{CBO}	$I_C = -10\ \mu A$, $I_E = 0$	−35			V
	2SA1035			−55			
Collector-emitter voltage (Base open)	2SA1034	V_{CEO}	$I_C = -2\ mA$, $I_B = 0$	−35			V
	2SA1035			−55			
Emitter-base voltage (Collector open)		V_{EBO}	$I_E = -10\ \mu A$, $I_C = 0$	−5			V
Base-emitter voltage *1		V_{BE}	$V_{CE} = -1\ V$, $I_C = -100\ mA$		− 0.7	−1.0	V
Collector-base cutoff current (Emitter open)		I_{CBO}	$V_{CB} = -10\ V$, $I_E = 0$			− 0.1	μA
Collector-emitter cutoff current (Base open)		I_{CEO}	$V_{CE} = -10\ V$, $I_B = 0$			−1	μA
Forward current transfer ratio *2		h_{FE}	$V_{CE} = -5\ V$, $I_C = -2\ mA$	180		700	—
Collector-emitter saturation voltage *1		$V_{CE(sat)}$	$I_C = -100\ mA$, $I_B = -10\ mA$			− 0.6	V
Transition frequency		f_T	$V_{CB} = -5\ V$, $I_E = 2\ mA$, $f = 200\ MHz$		200		MHz
Noise voltage		NV	$V_{CE} = -10\ V$, $I_C = -1\ mA$, $G_V = 80\ dB$ $R_g = 100\ k\Omega$, Function = FLAT			150	mV

Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.
2. *1: Pulse measurement
*2: Rank classification

Rank	R	S	T
h_{FE}	180 to 360	260 to 520	360 to 700

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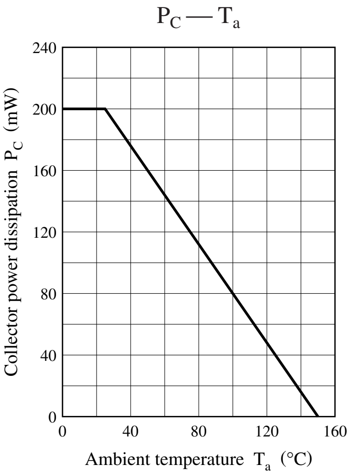

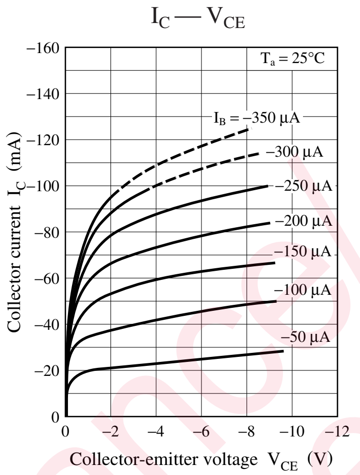

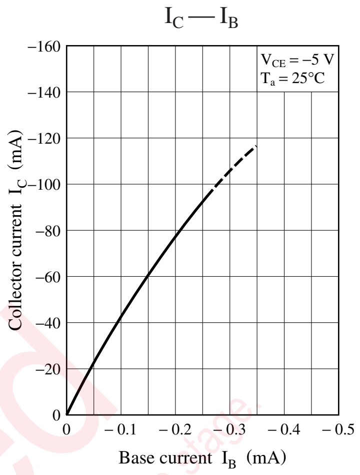

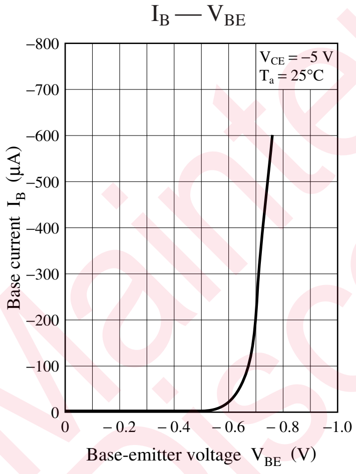

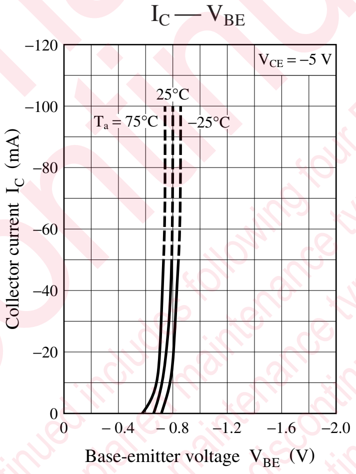

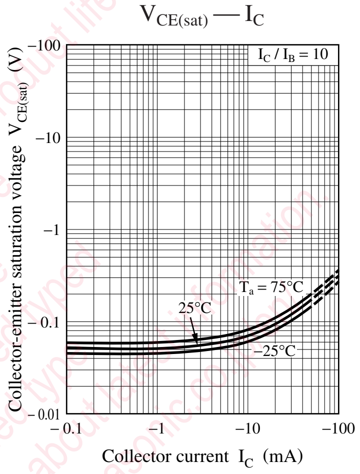

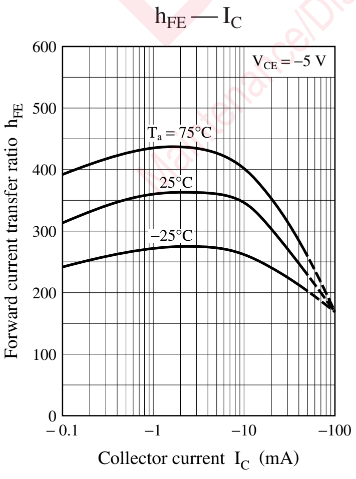

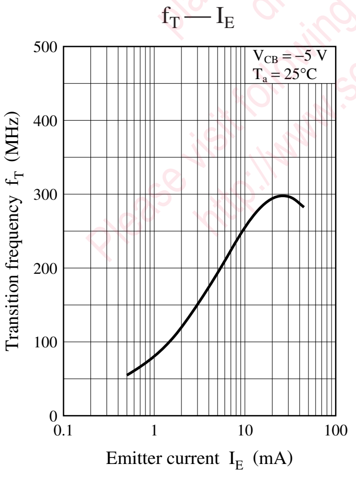

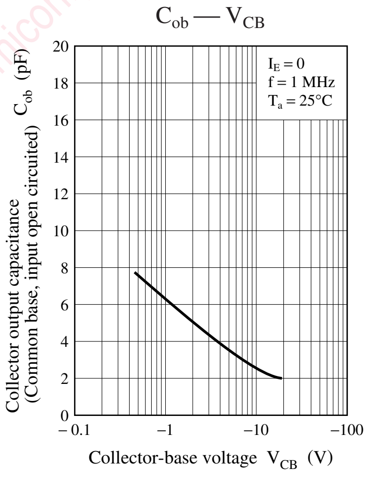

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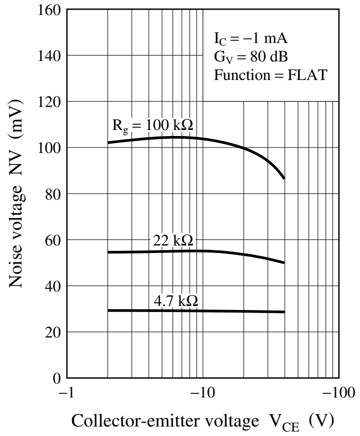
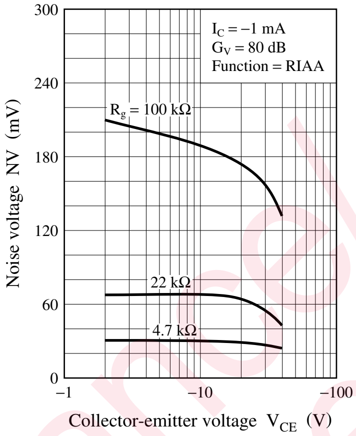
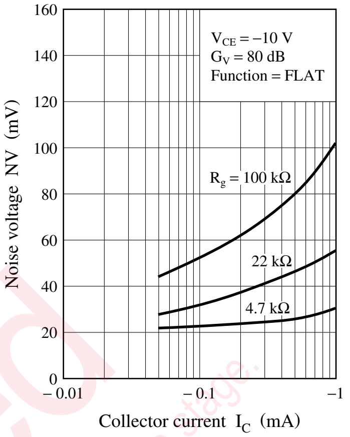
NV — V_{CE}



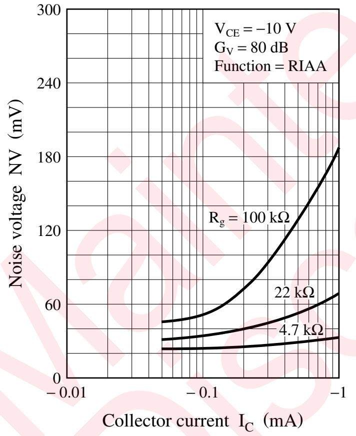
NV — V_{CE}



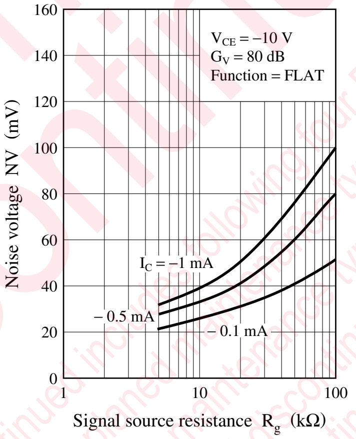
NV — I_C



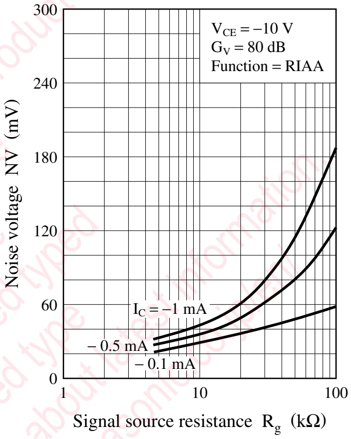
NV — I_C



NV — R_g



NV — R_g



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