



SANYO Semiconductors

DATA SHEET

2SA1179 / 2SC2812 — PNP / NPN Epitaxial Planar Silicon Transistors

Low-Frequency General-Purpose Amplifier Applications

Features

- Miniature package facilitates miniaturization in end products.
- High breakdown voltage.

Specifications () : 2SA1179

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V _{CB0}		(-)55	V
Collector-to-Emitter Voltage	V _{CEO}		(-)50	V
Emitter-to-Base Voltage	V _{EBO}		(-)5	V
Collector Current	I _C		(-)150	mA
Collector Current (Pulse)	I _{CP}		(-)300	mA
Base Current	I _B		(-)30	mA
Collector Dissipation	P _C		200	mW
Junction Temperature	T _J		150	°C
Storage Temperature	T _{stg}		-55 to +150	°C

Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I _{CB0}	V _{CB} =(-)35V, I _E =0A			(-)0.1	μA
Emitter Cutoff Current	I _{EBO}	V _{EB} =(-)4V, I _C =0A			(-)0.1	μA
DC Current Gain	h _{FE}	V _{CE} =(-)6V, I _C =(-)1mA	135*		600*	
Gain-Bandwidth Product	f _T	2SC2812 : V _{CE} =6V, I _C =1mA		100		MHz
		2SA1179 : V _{CE} =-6V, I _C =-10mA		(180)		MHz

Marking: 2SA1179: M / 2SC2812: L

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*: The 2SA1179 / 2SC2812 are classified by 1mA h_{FE} as follows:

Rank	5	6	7
h _{FE}	135 to 270	200 to 400	300 to 600

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SANYO Semiconductor Co., Ltd.

TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN

2SA1179 / 2SC2812

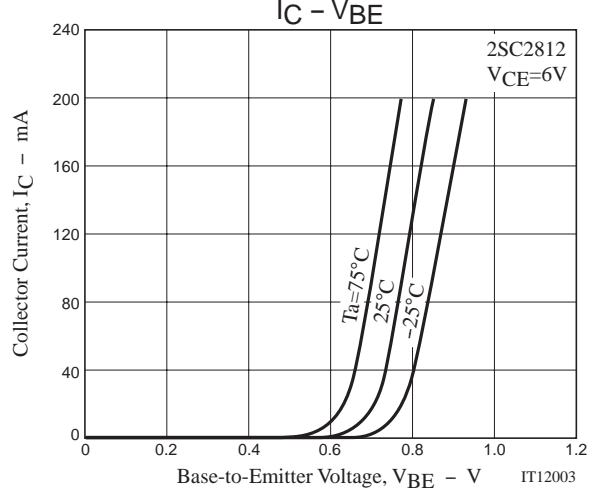
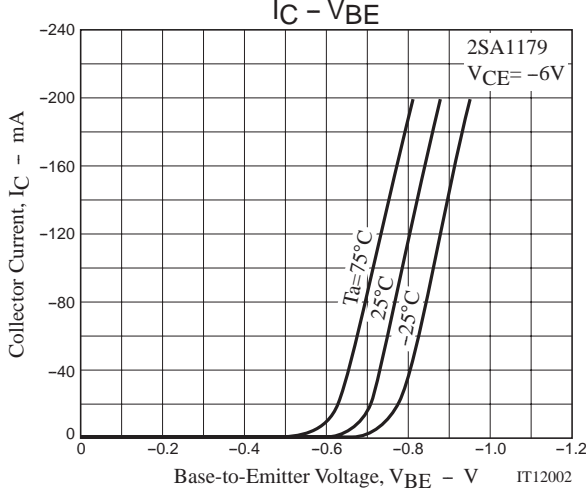
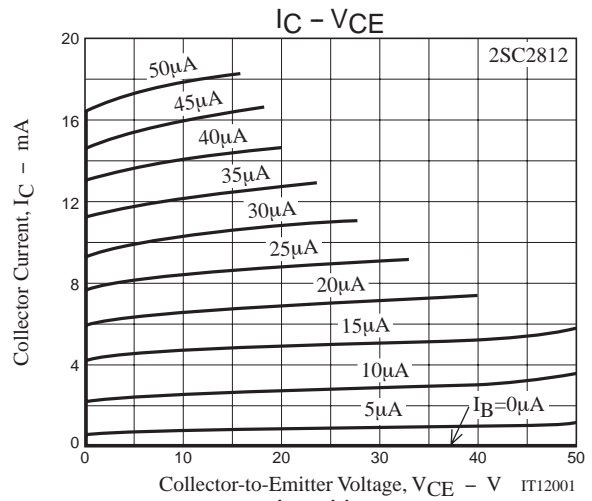
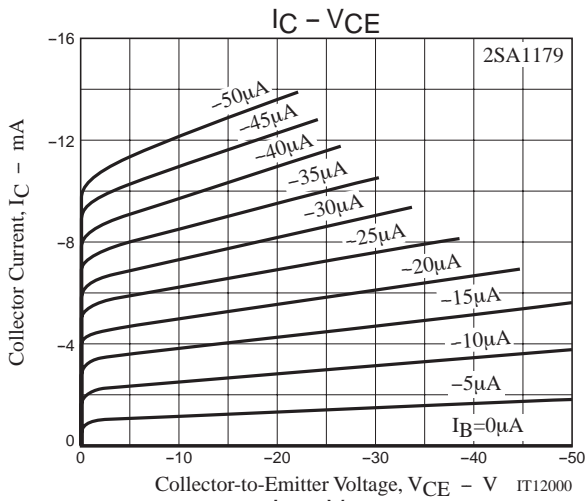
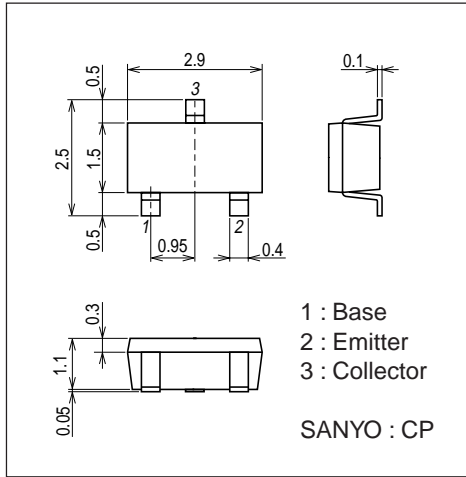
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Output Capacitance	Cob	$V_{CB} = -6V, f = 1MHz$		(4.0)3.0		pF
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = (-)50mA, I_B = (-)5mA$		(-0.15)0.1	(-)0.5	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = (-)50mA, I_B = (-)5mA$			(-)1.0	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = (-)10\mu A, I_E = 0A$	(-)55			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = (-)1mA, R_{BE} = \infty$	(-)50			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = (-)10\mu A, I_C = 0A$	(-)5			V

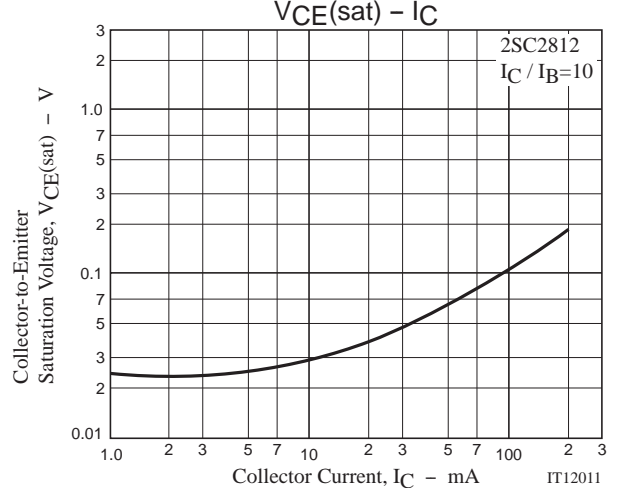
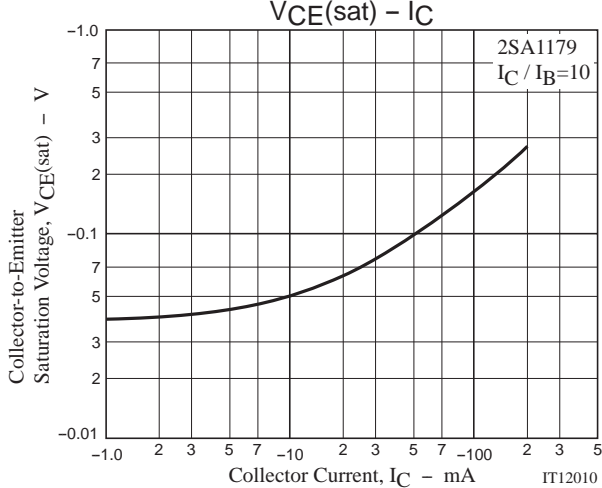
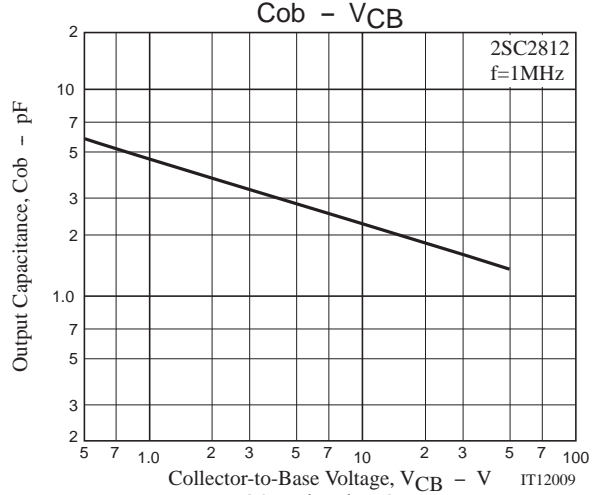
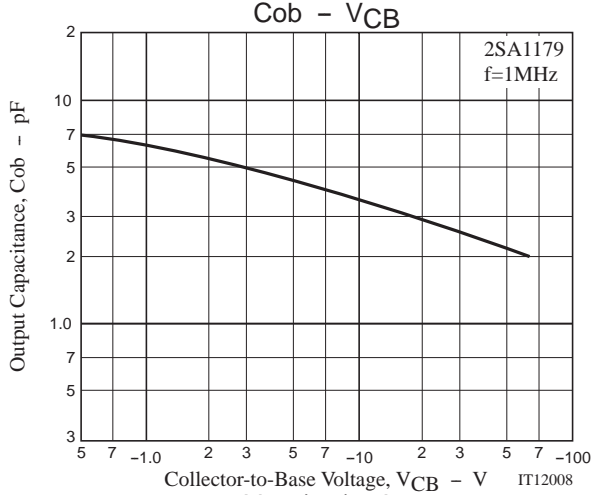
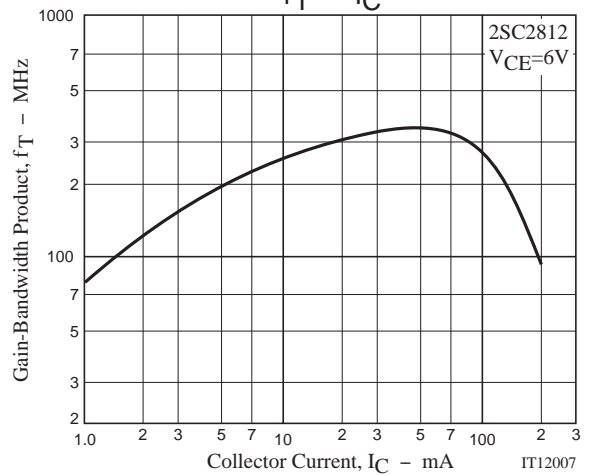
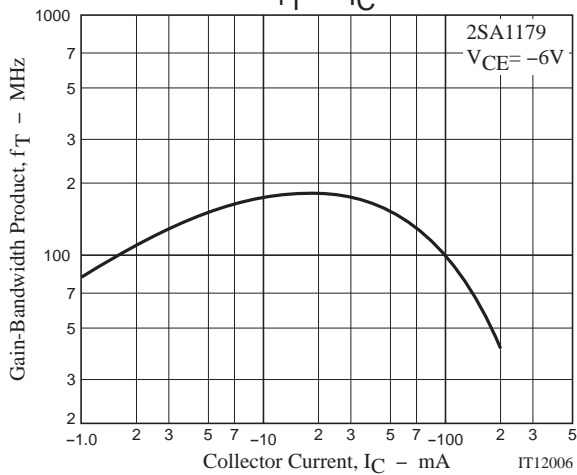
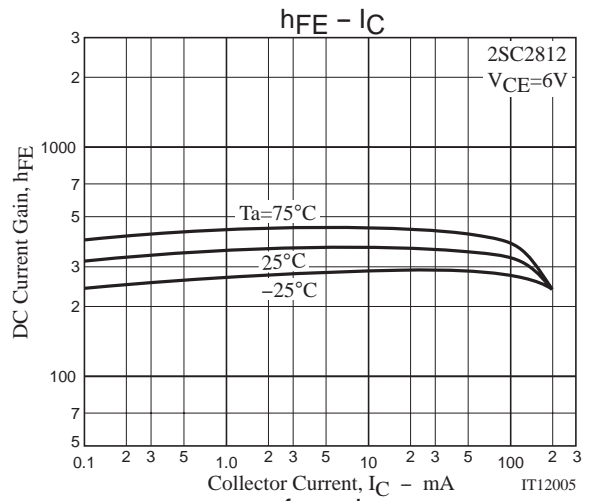
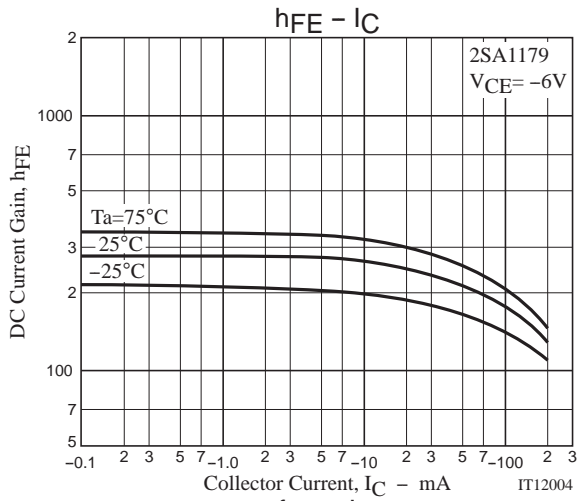
Package Dimensions

unit : mm (typ)

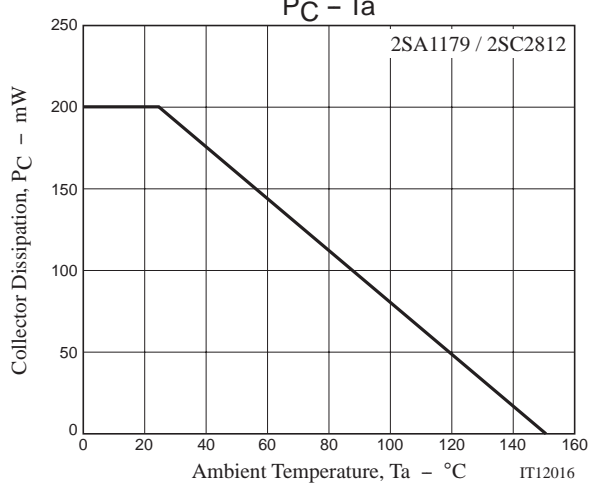
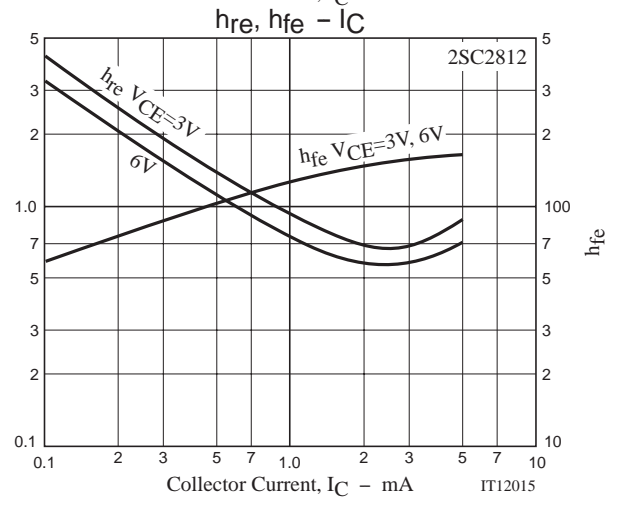
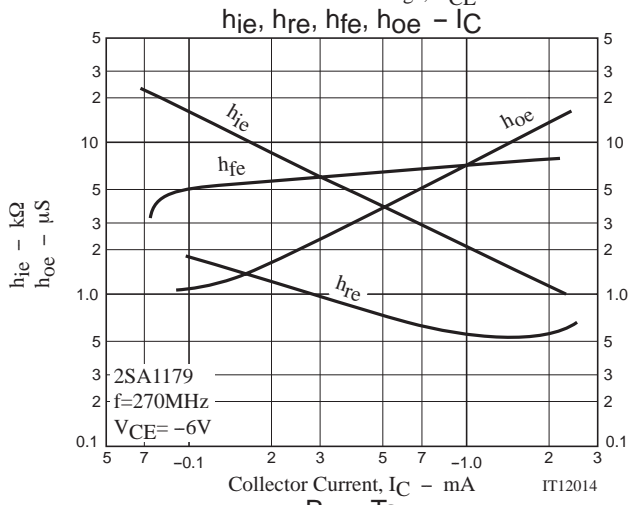
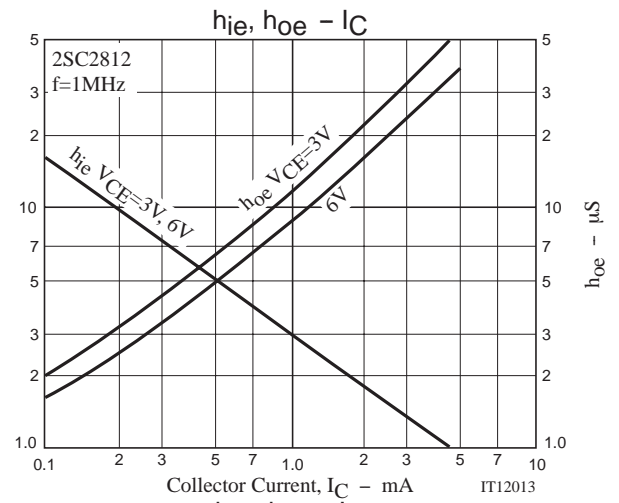
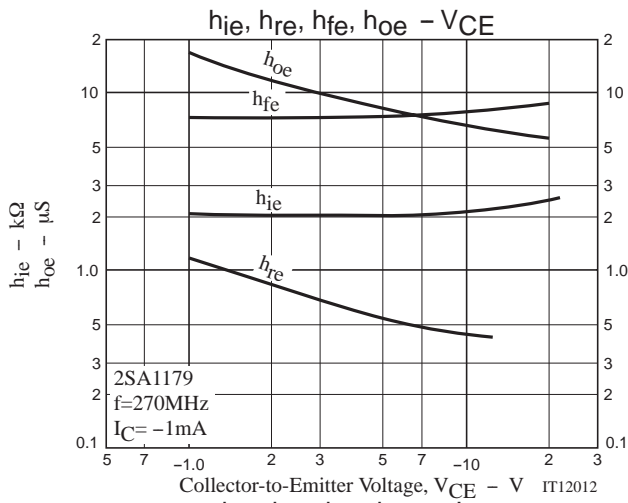
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2SA1179 / 2SC2812



2SA1179 / 2SC2812



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