



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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2SA1179 / 2SC2812

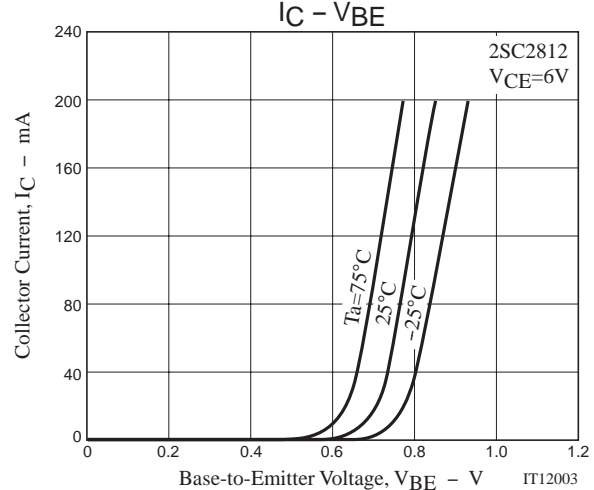
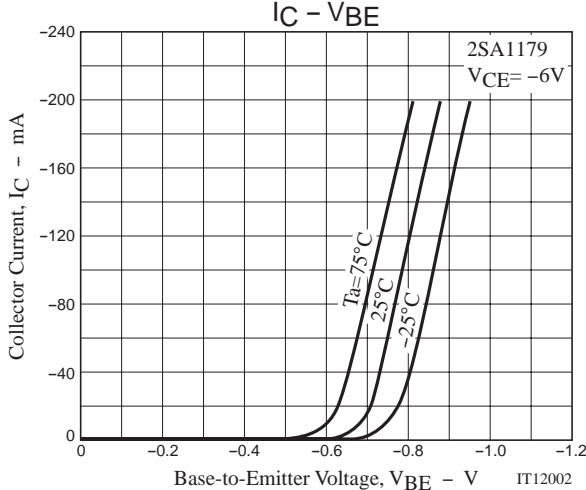
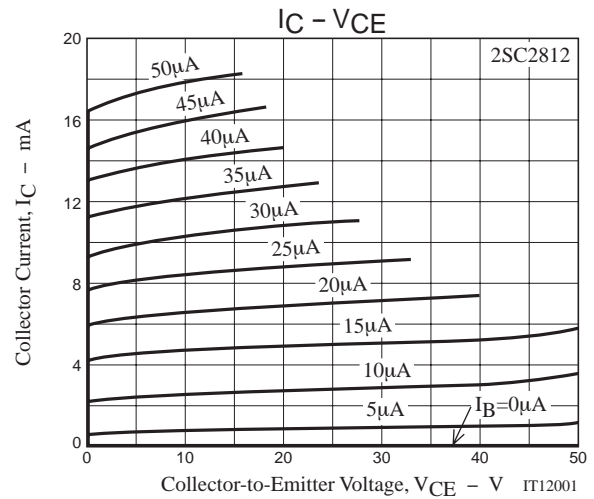
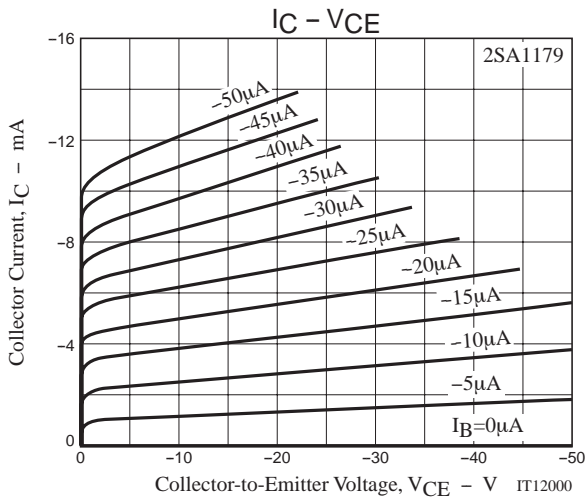
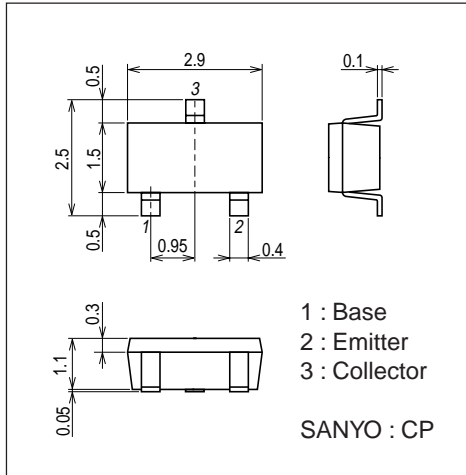
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Output Capacitance	Cob	V _{CB} =(-)6V, f=1MHz		(4.0)3.0		pF
Collector-to-Emitter Saturation Voltage	V _{CE(sat)}	I _C =(-)50mA, I _B =(-)5mA		(-0.15)0.1	(-)0.5	V
Base-to-Emitter Saturation Voltage	V _{BE(sat)}	I _C =(-)50mA, I _B =(-)5mA			(-)1.0	V
Collector-to-Base Breakdown Voltage	V _{(BR)CBO}	I _C =(-)10μA, I _E =0A	(-)55			V
Collector-to-Emitter Breakdown Voltage	V _{(BR)CEO}	I _C =(-)1mA, R _{BE} =∞	(-)50			V
Emitter-to-Base Breakdown Voltage	V _{(BR)EBO}	I _E =(-)10μA, I _C =0A	(-)5			V

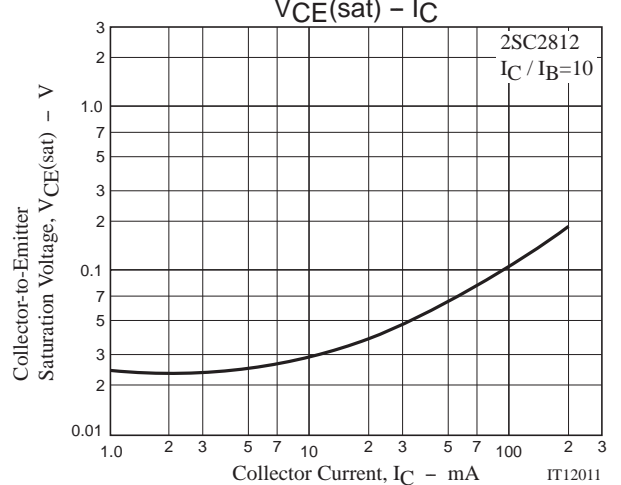
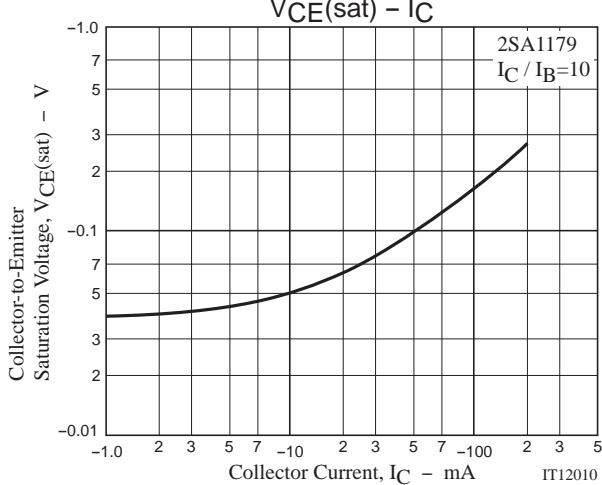
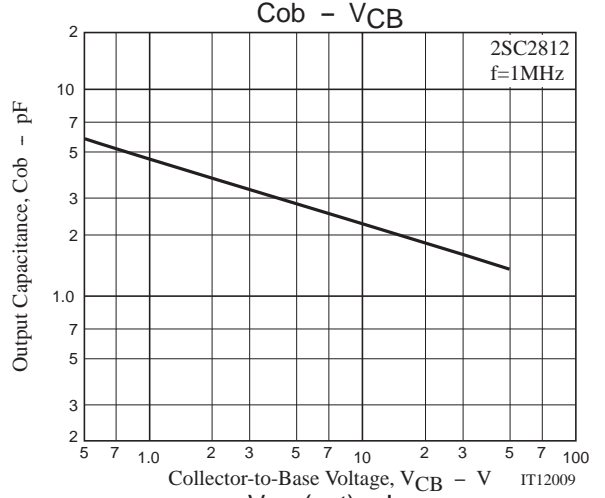
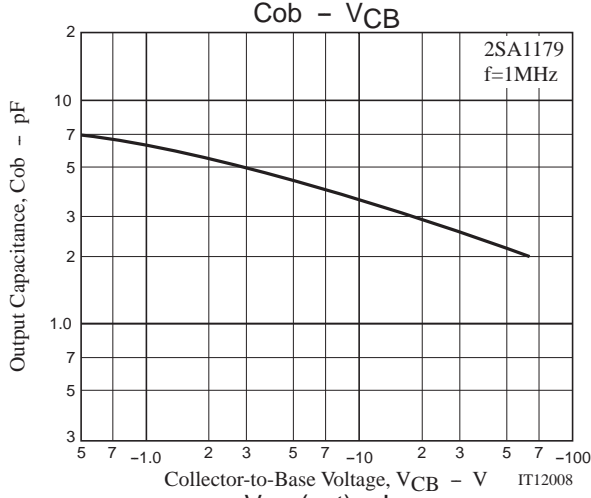
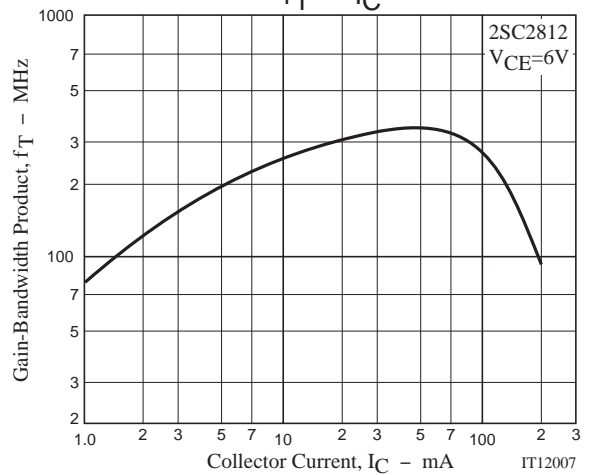
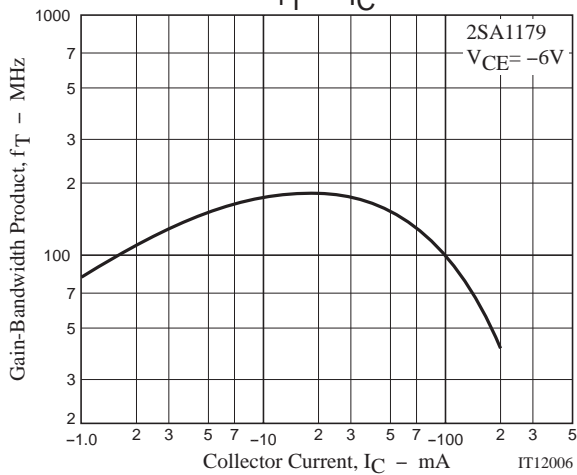
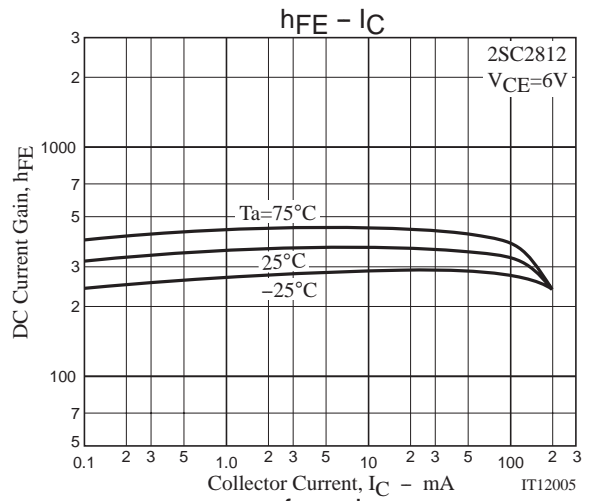
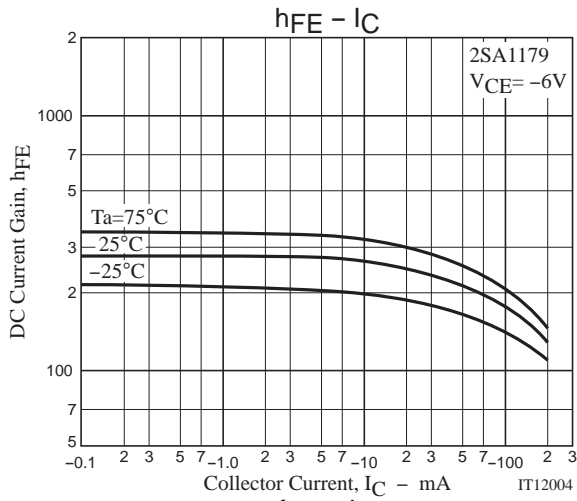
Package Dimensions

unit : mm (typ)

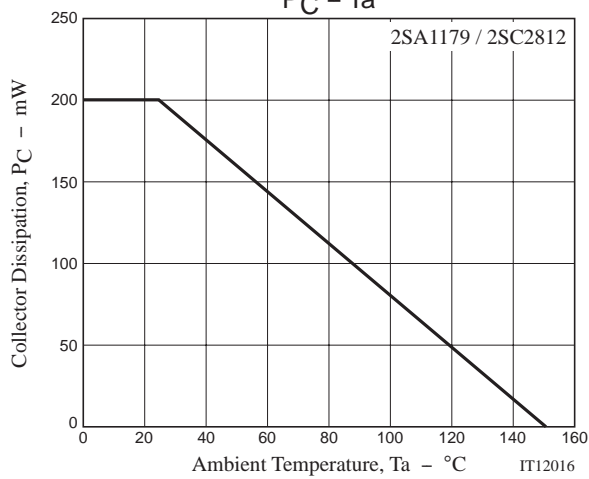
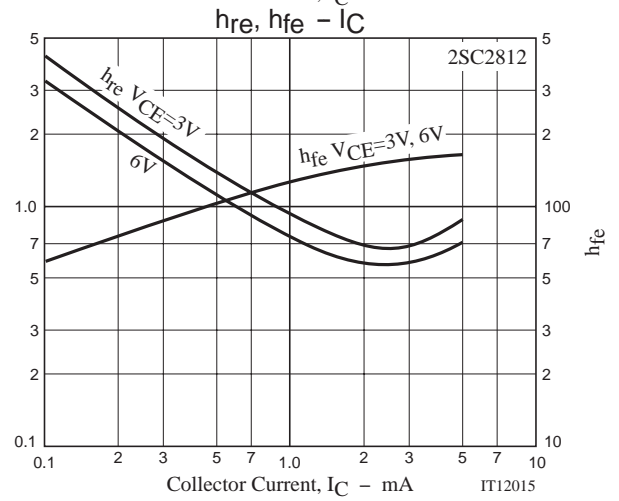
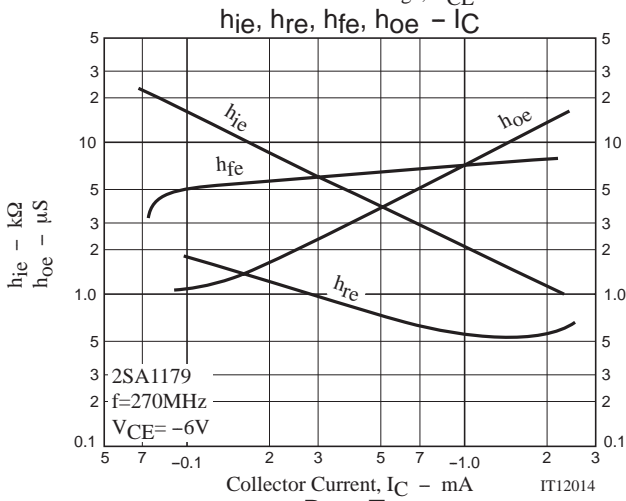
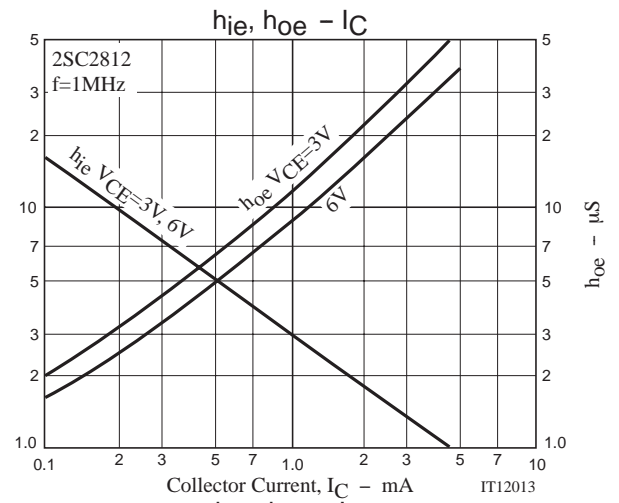
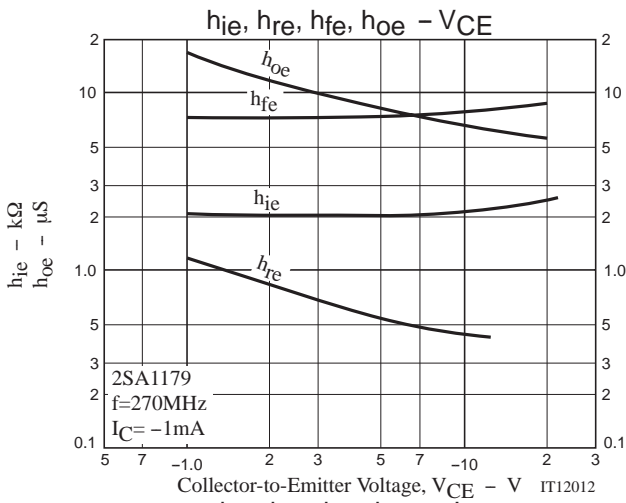
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