



SANYO Semiconductors

# DATA SHEET

An ON Semiconductor Company

## 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 <sub>CB0</sub>		(-)55	V
Collector-to-Emitter Voltage	V <sub>CEO</sub>		(-)50	V
Emitter-to-Base Voltage	V <sub>EBO</sub>		(-)5	V
Collector Current	I <sub>C</sub>		(-)150	mA
Collector Current (Pulse)	I <sub>CP</sub>		(-)300	mA
Base Current	I <sub>B</sub>		(-)30	mA
Collector Dissipation	P <sub>C</sub>		200	mW
Junction Temperature	T <sub>J</sub>		150	°C
Storage Temperature	T <sub>stg</sub>		-55 to +150	°C

#### Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I <sub>CB0</sub>	V <sub>CB</sub> =(-)35V, I <sub>E</sub> =0A			(-)0.1	μA
Emitter Cutoff Current	I <sub>EBO</sub>	V <sub>EB</sub> =(-)4V, I <sub>C</sub> =0A			(-)0.1	μA
DC Current Gain	h <sub>FE</sub>	V <sub>CE</sub> =(-)6V, I <sub>C</sub> =(-)1mA	135*		600*	
Gain-Bandwidth Product	f <sub>T</sub>	2SC2812 : V <sub>CE</sub> =6V, I <sub>C</sub> =1mA		100		MHz
		2SA1179 : V <sub>CE</sub> =-6V, I <sub>C</sub> =-10mA		(180)		MHz

Marking: 2SA1179: M / 2SC2812: L

Continued on next page.

\*: The 2SA1179 / 2SC2812 are classified by 1mA h<sub>FE</sub> as follows:

Rank	5	6	7
h <sub>FE</sub>	135 to 270	200 to 400	300 to 600

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# 2SA1179 / 2SC2812

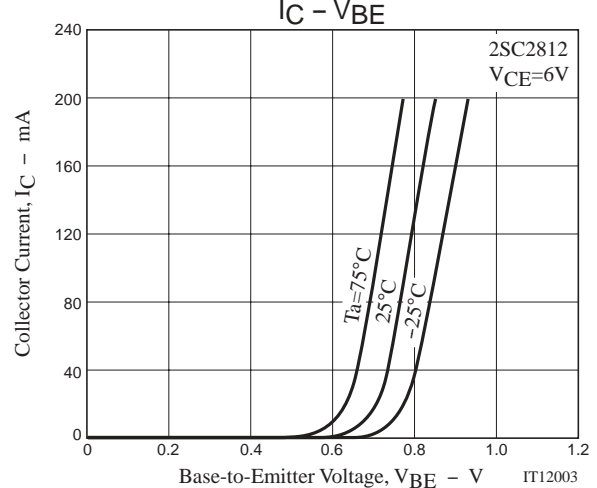
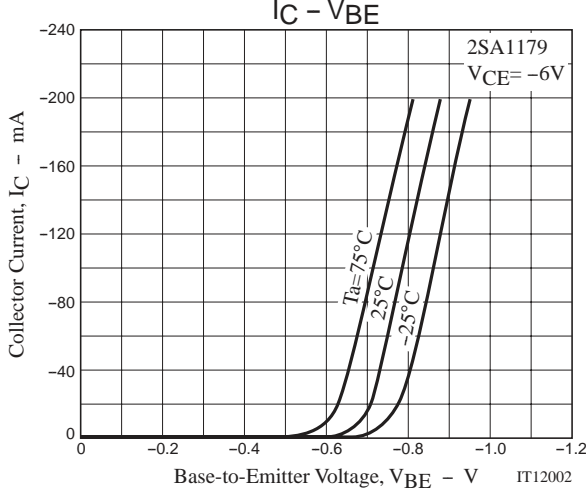
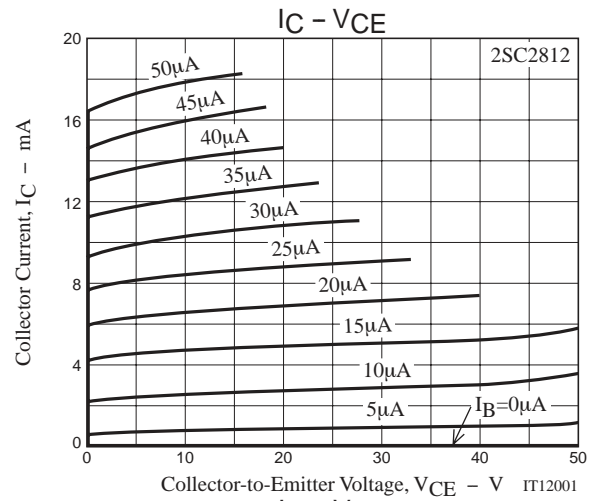
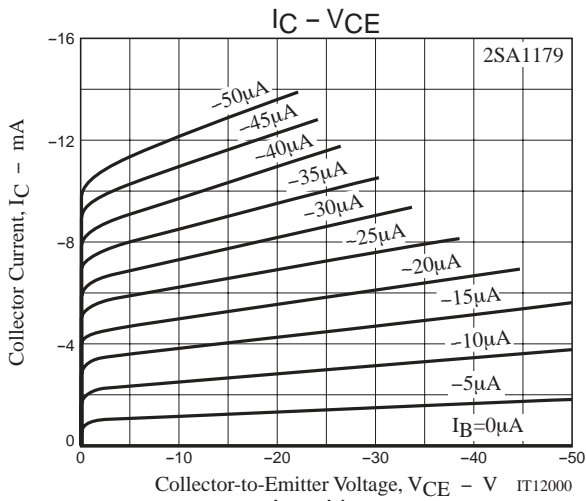
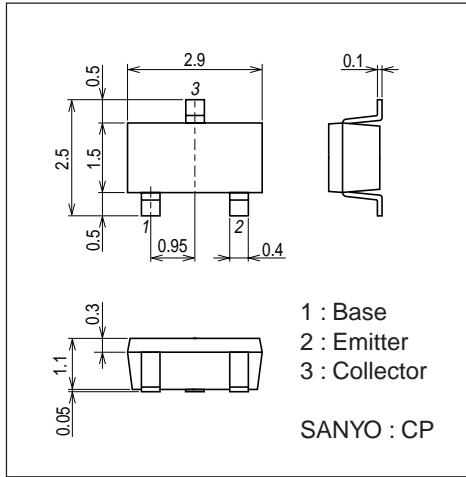
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Output Capacitance	Cob	$V_{CB} = -6V, f = 1MHz$		(4.0)3.0		pF
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = (-)50mA, I_B = (-)5mA$		(-0.15)0.1	(-)0.5	V
Base-to-Emitter Saturation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

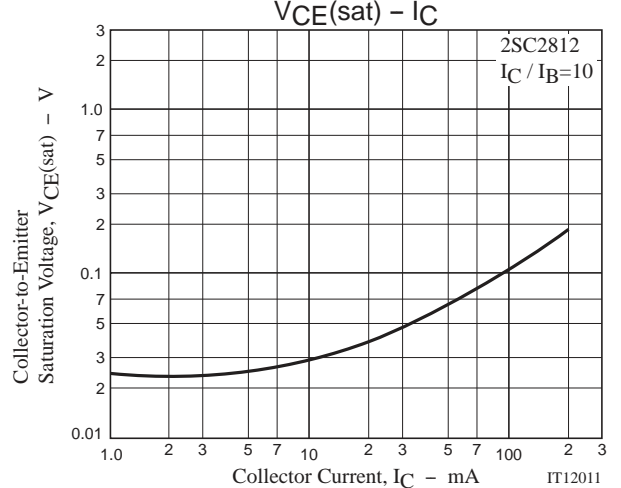
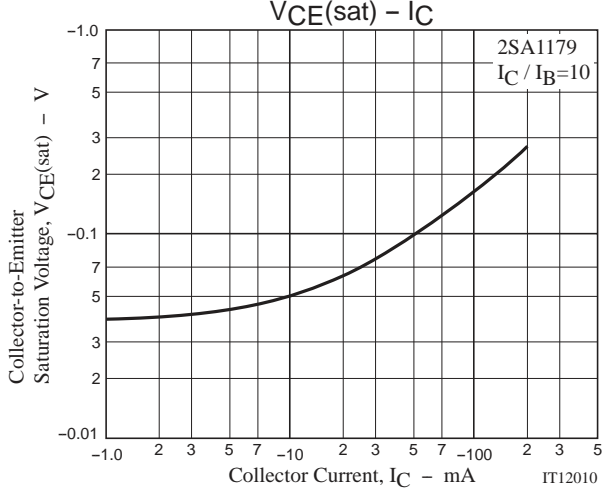
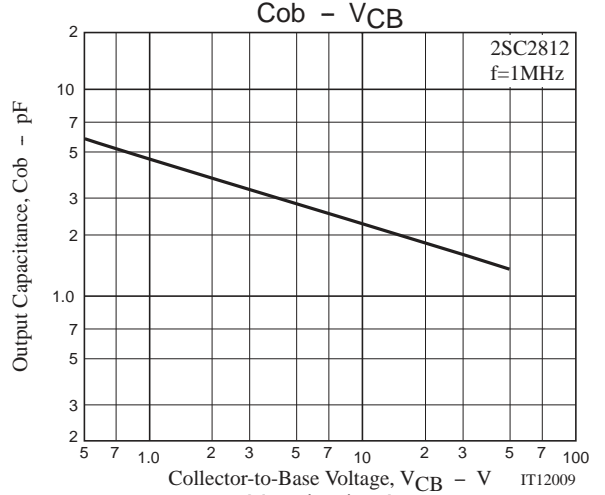
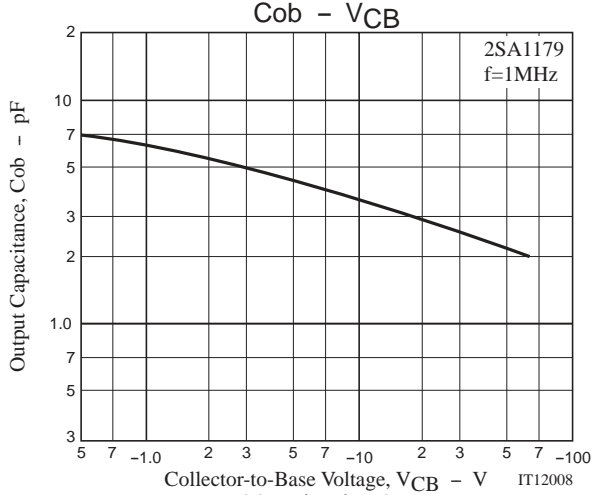
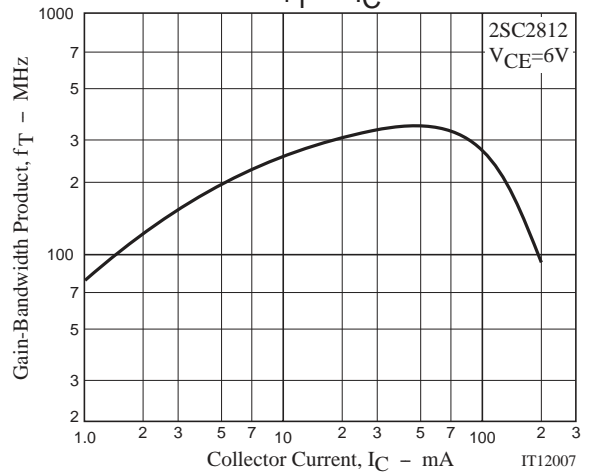
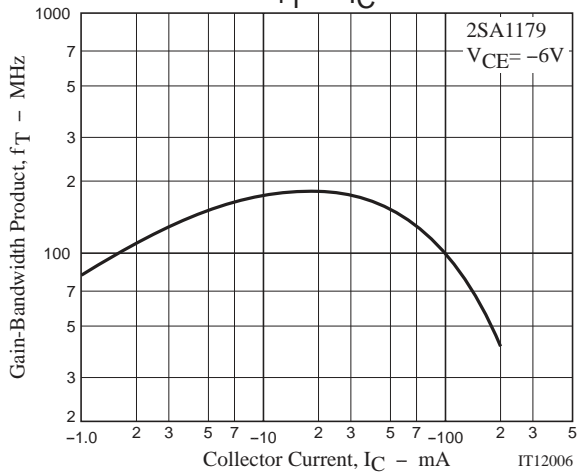
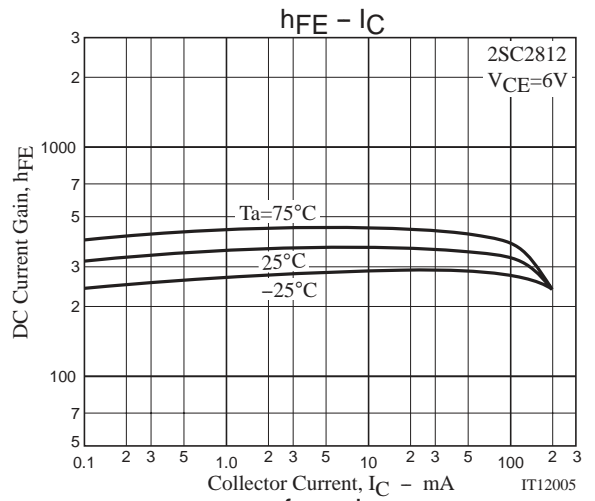
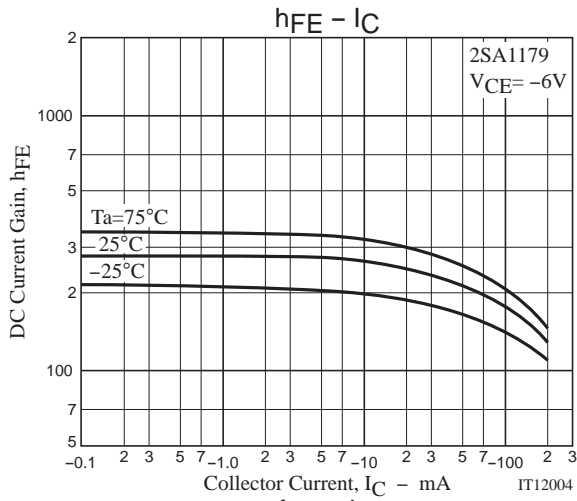
## Package Dimensions

unit : mm (typ)

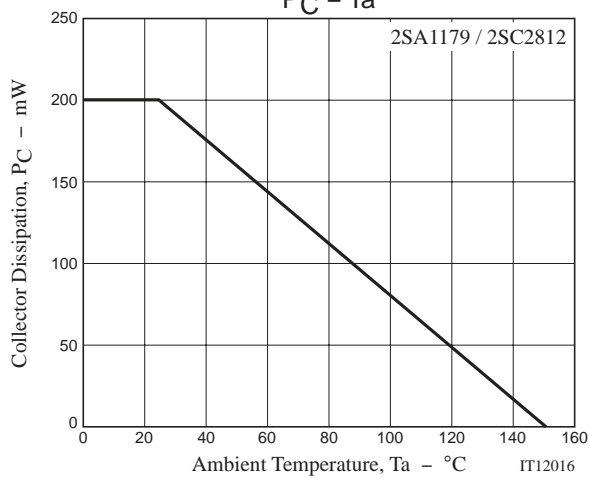
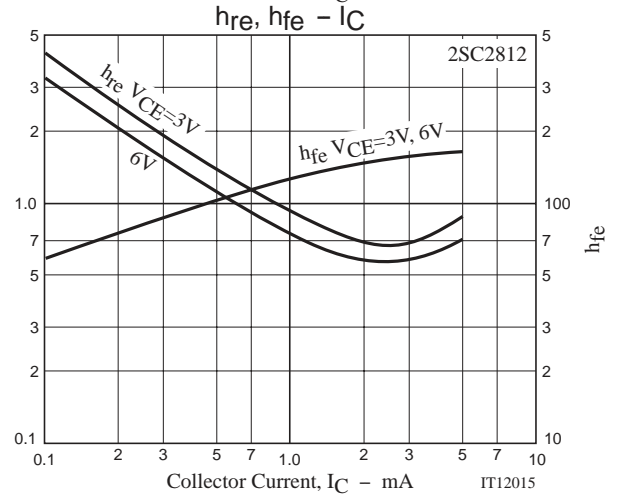
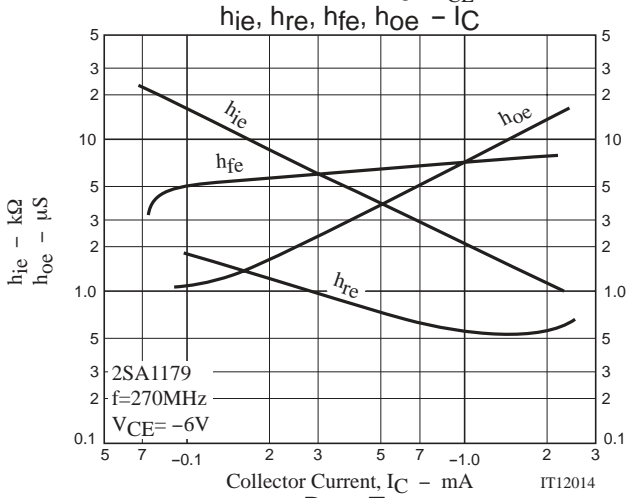
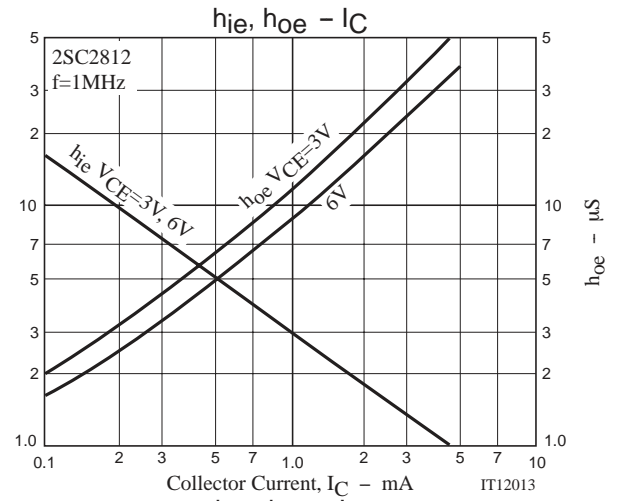
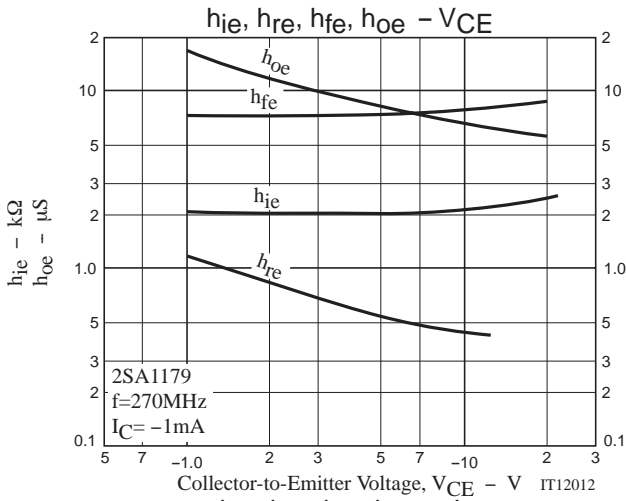
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