



# CPH6530 — PNP / NPN Epitaxial Planar Silicon Transistor

## Low-Frequency General-Purpose Applications

### Applications

- Muting circuit, relay drivers, lamp drivers, motor drivers.

### Features

- Composite type with a PNP / NPN transistor contained in one package, facilitating high-density mounting.
- Ultrasmall package permitting applied sets to be small and slim.

### Specifications ( ) : PNP

#### Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V <sub>CB0</sub>		(-15)60	V
Collector-to-Emitter Voltage	V <sub>CEO</sub>		(-12)50	V
Emitter-to-Base Voltage	V <sub>EBO</sub>		(-)5	V
Collector Current	I <sub>C</sub>		(-1)0.5	A
Collector Current (Pulse)	I <sub>CP</sub>		(-2)1	A
Collector Dissipation	P <sub>C</sub>	Mounted on a ceramic board (600mm <sup>2</sup> X0.8m) 1unit	0.6	W
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> =(-12)40V, I <sub>E</sub> =0A			(-)100	nA
Emitter Cutoff Current	I <sub>EBO</sub>	V <sub>EB</sub> =(-)4V, I <sub>C</sub> =0A			(-)100	nA
DC Current Gain	h <sub>FE</sub>	V <sub>CE</sub> =(-)2V, I <sub>C</sub> =(-)10mA	300		(700)800	
Gain-Bandwidth Product	f <sub>T</sub>	V <sub>CE</sub> =(-2)10V, I <sub>C</sub> =(-)50mA		(450)500		MHz
Output Capacitance	C <sub>ob</sub>	V <sub>CB</sub> =(-)10V, f=1MHz		(6)2.8		pF
Collector-to-Emitter Saturation Voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =(-400)100mA, I <sub>B</sub> =(-20)10mA		(-120)50	(-240)100	mV
Base-to-Emitter Saturation Voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> =(-400)100mA, I <sub>B</sub> =(-20)10mA		(-)0.9	(-)1.2	V
Collector-to-Base Breakdown Voltage	V <sub>(BR)CBO</sub>	I <sub>C</sub> =(-)10μA, I <sub>E</sub> =0A	(-15)60			V
Collector-to-Emitter Breakdown Voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> =(-)1mA, R <sub>BE</sub> =∞	(-12)50			V
Emitter-to-Base Breakdown Voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> =(-)10μA, I <sub>C</sub> =0A	(-)5			V

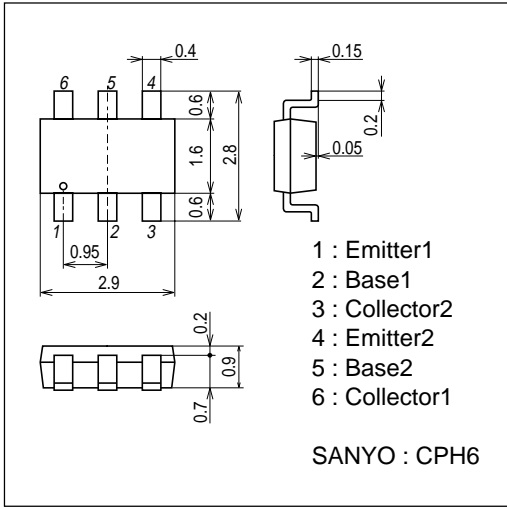
Marking : EQ

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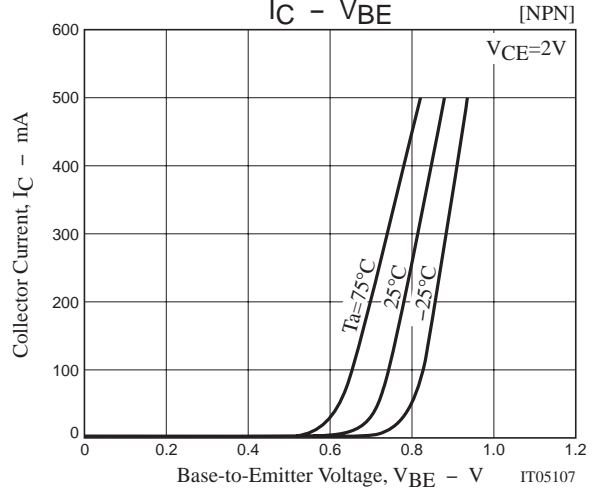
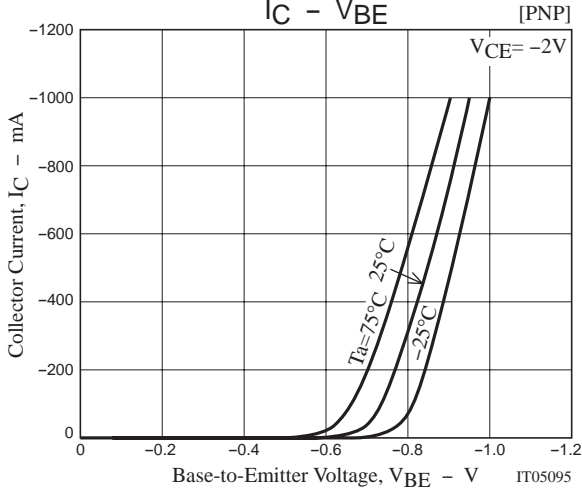
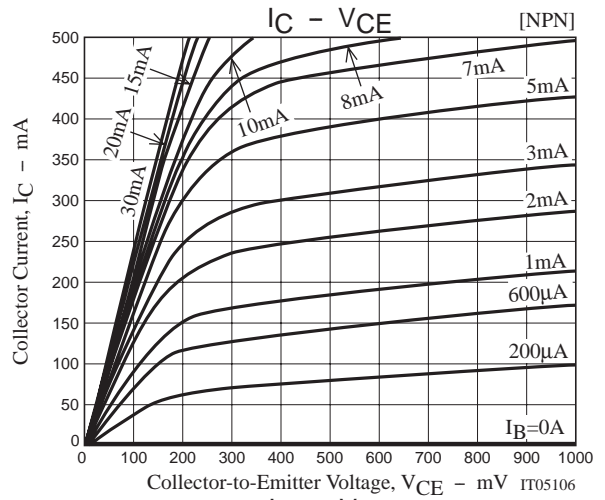
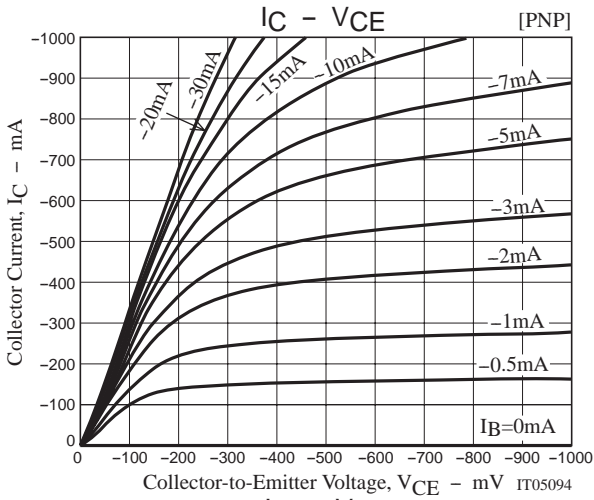
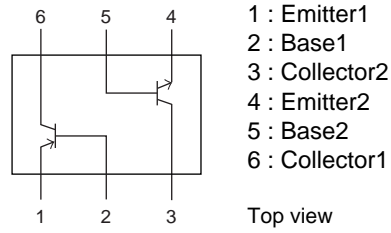
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## Package Dimensions

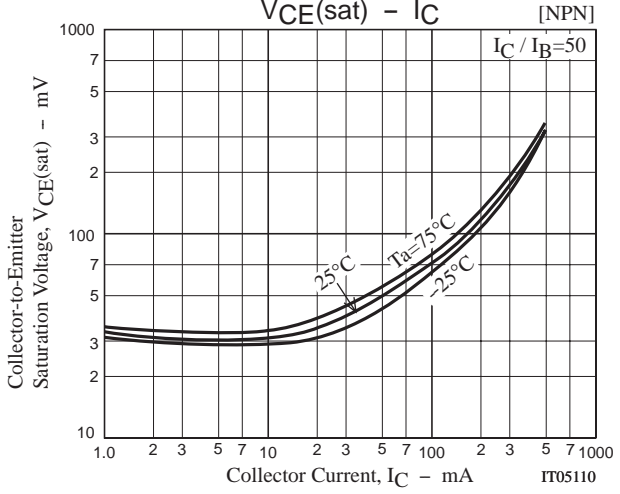
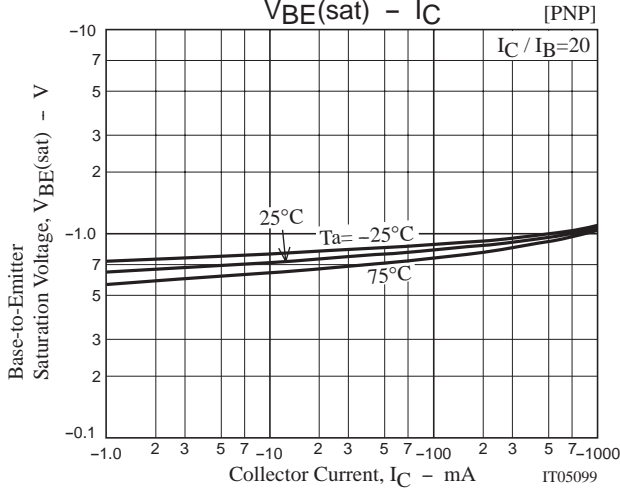
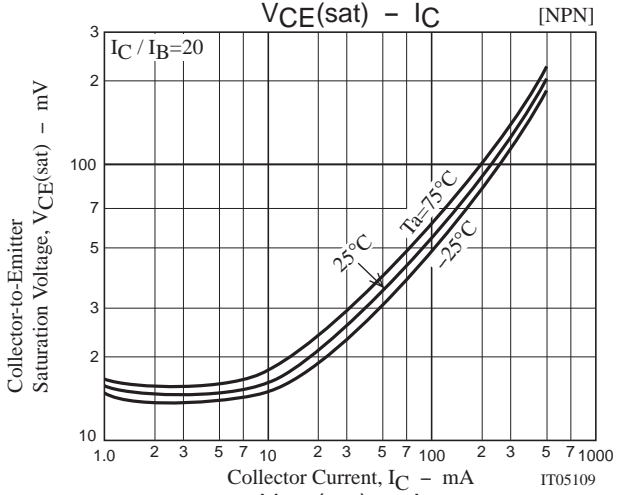
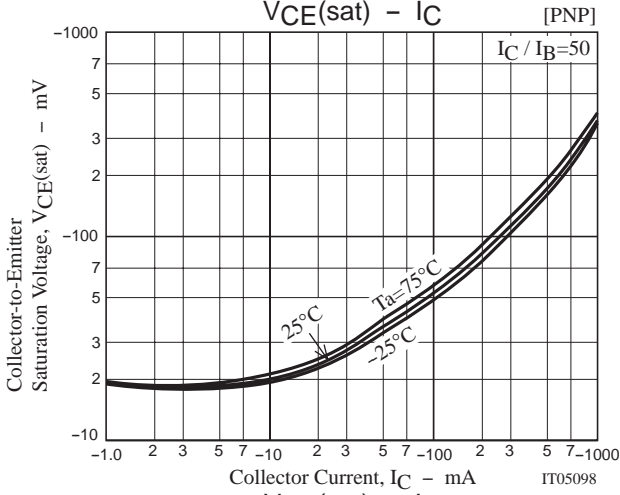
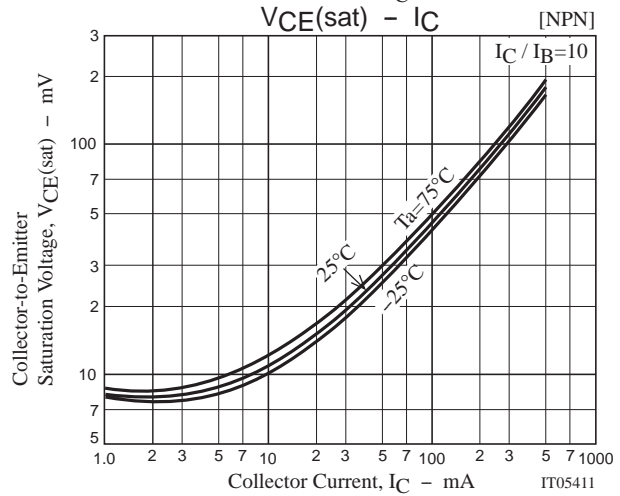
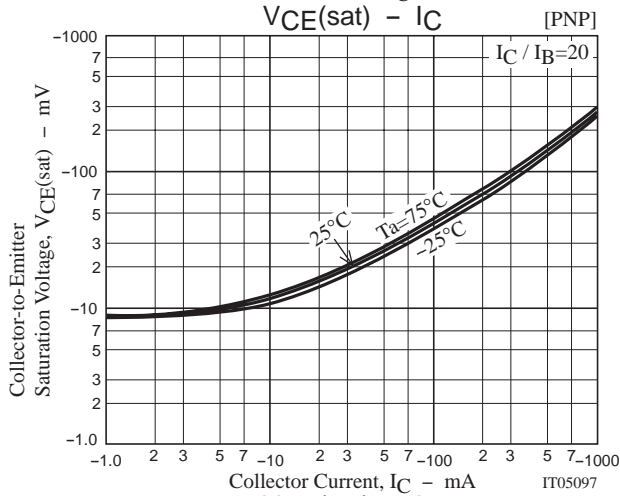
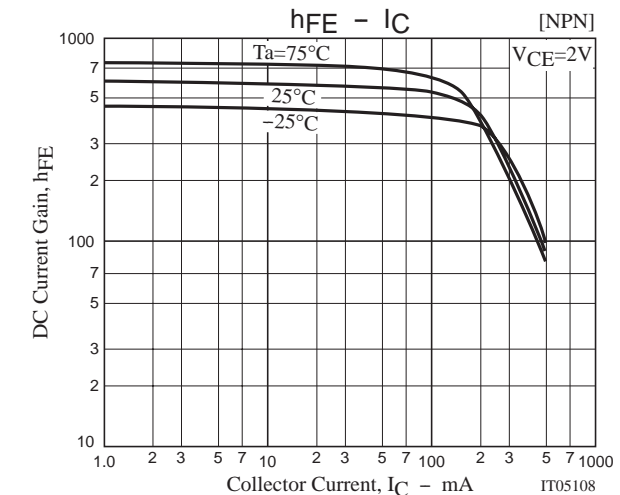
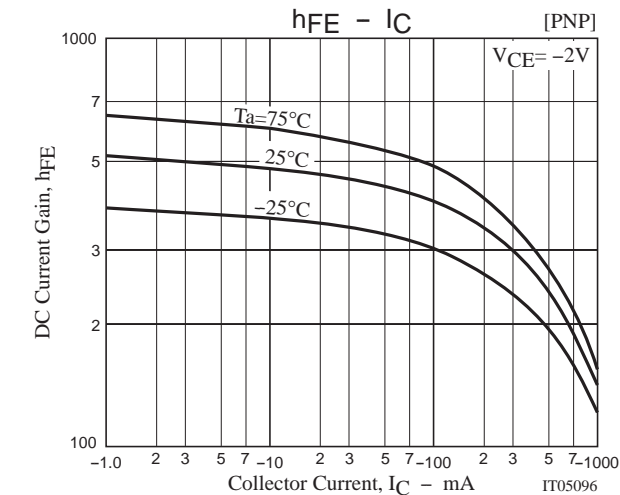
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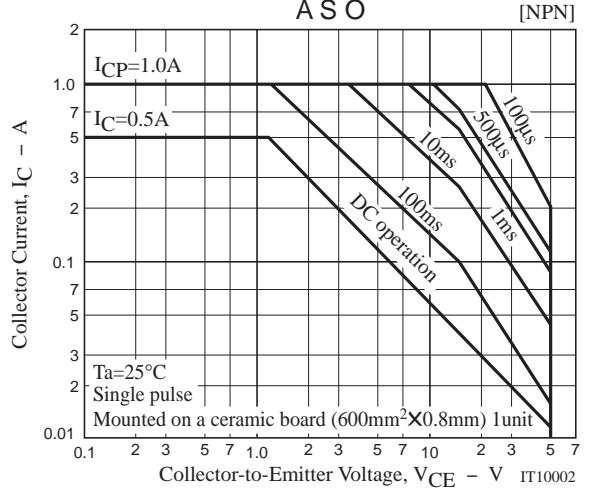
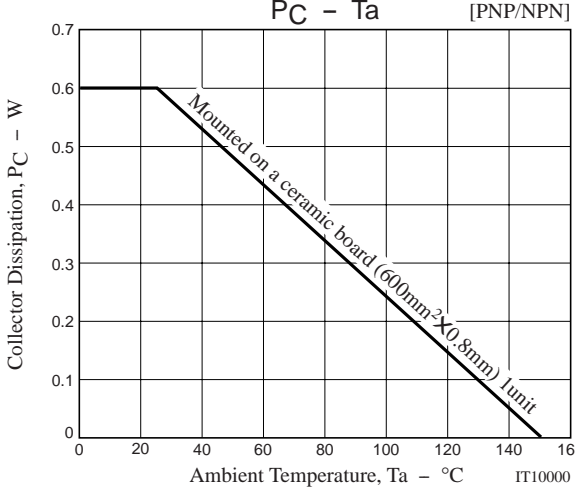
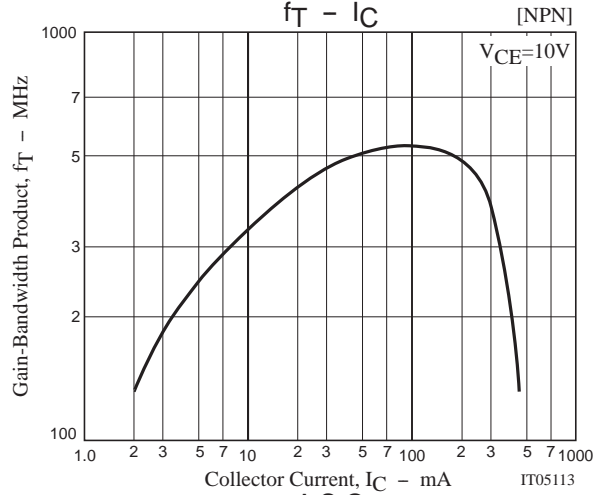
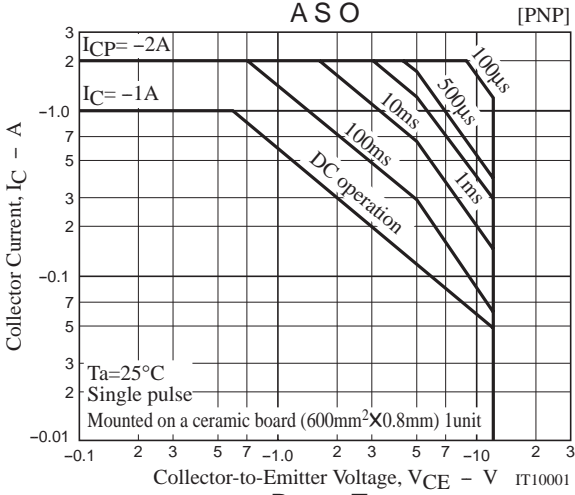
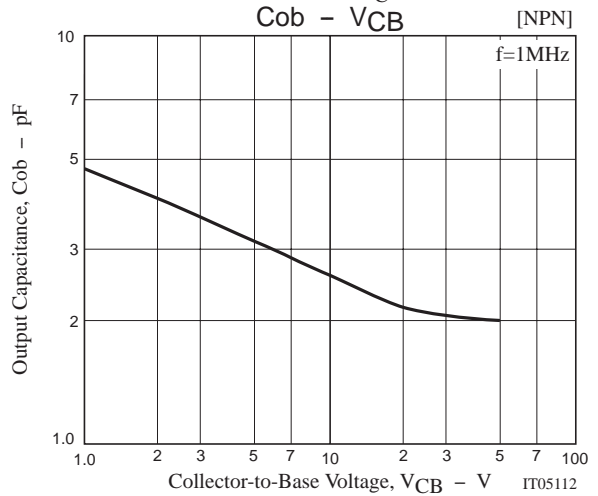
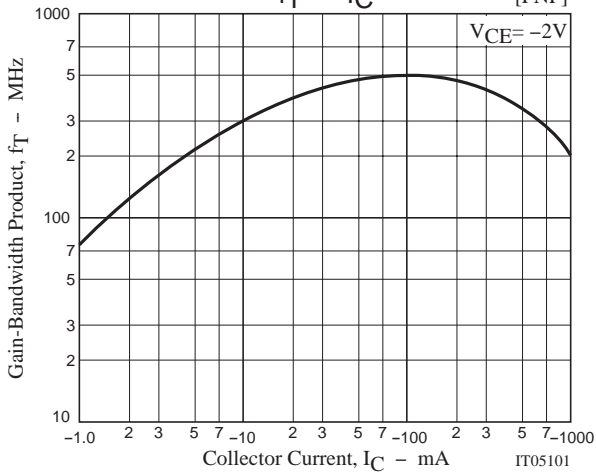
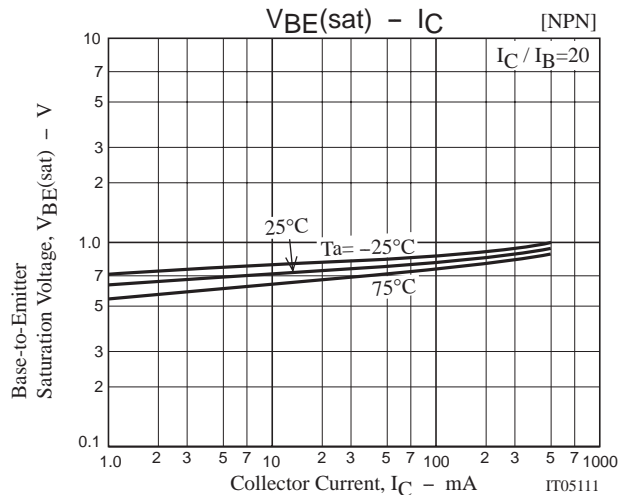
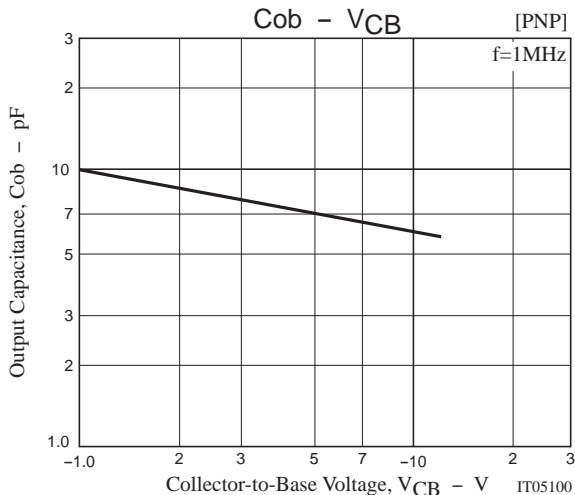
## Electrical Connection



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