

Ordering number:ENN6479

PNP Epitaxial Planar Silicon Transistor



CPH5505

DC/DC Converter Applications

Applications

- Relay drivers, lamp drivers, motor drivers, strobes.

Features

- Composite type with two PNP transistors contained in a single package facilitating high-density mounting.
- The CPH5505 consists of two chips which are equivalent to the CPH3109 encapsulated in a package.
- Ultrasmall package facilitates miniaturization in end products (mounting height : 0.9mm).

Specifications

Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CB0}		-30	V
Collector-to-Emitter Voltage	V_{CEO}		-30	V
Emitter-to-Base Voltage	V_{EBO}		-5	V
Collector Current	I_C		-3	A
Collector Current (Pulse)	I_{CP}		-5	A
Base Current	I_B		-600	mA
Collector Dissipation	P_C	Mounted on a ceramic board (600mm ² ×0.8mm)	0.9	W
Total Dissipation	P_T	Mounted on a ceramic board (600mm ² ×0.8mm)	1.2	W
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}	$V_{CB}=-30V, I_E=0$			-0.1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=-4V, I_C=0$			-0.1	μA
DC Current Gain	h_{FE}	$V_{CE}=-2V, I_C=-500mA$	200		560	
Gain-Bandwidth Product	f_T	$V_{CE}=-10V, I_C=-500mA$		380		MHz
Output Capacitance	C_{ob}	$V_{CB}=-10V, f=1MHz$		25		pF

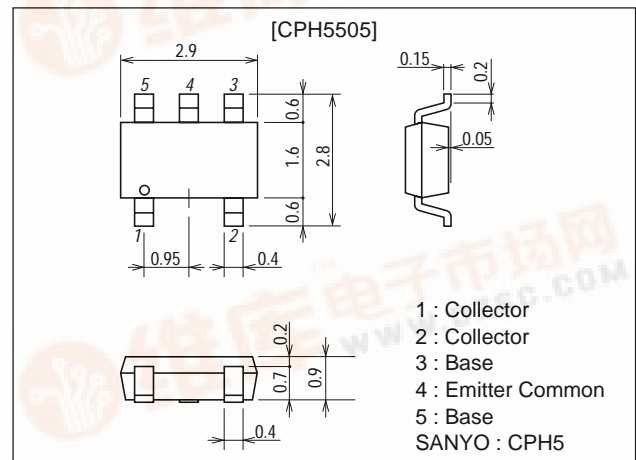
Marking CPH5505 : EE

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Package Dimensions

unit:mm

2182



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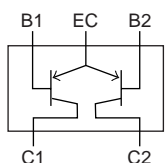


CPH5505

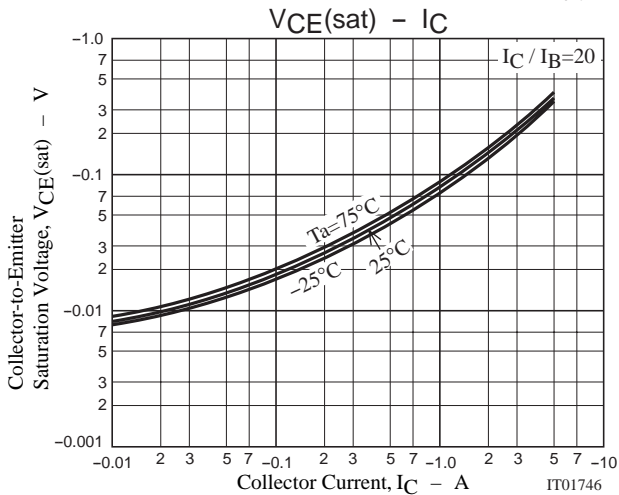
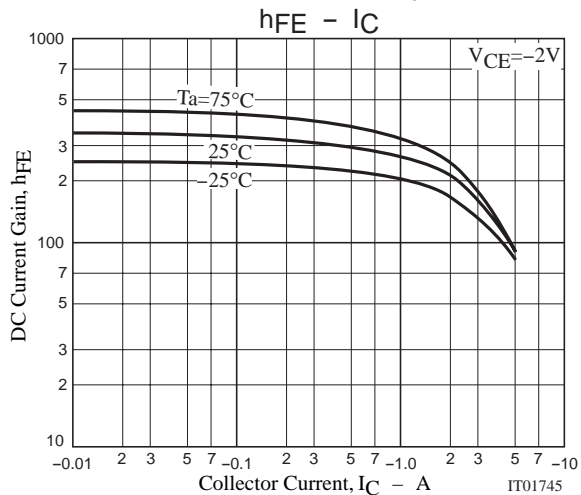
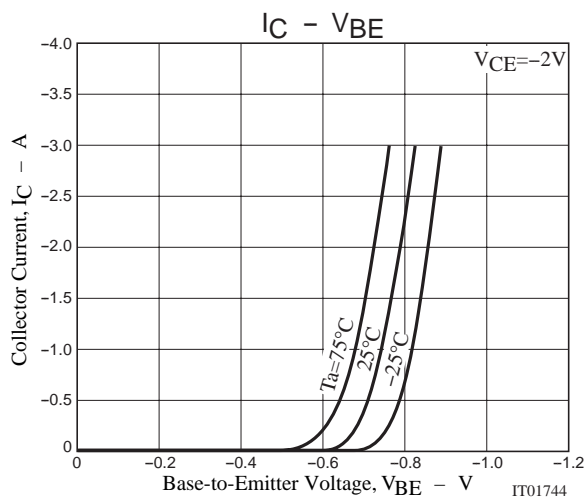
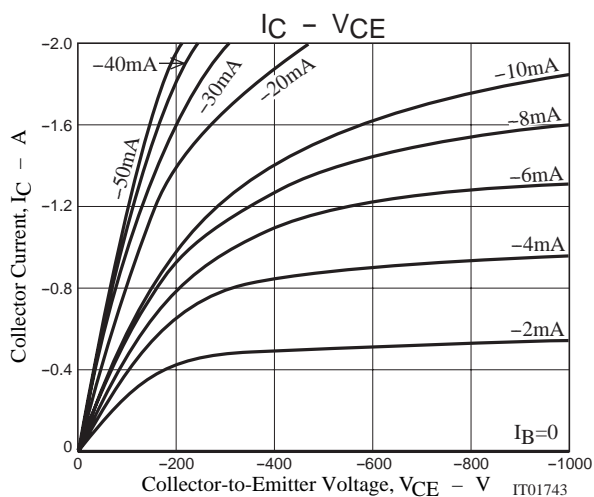
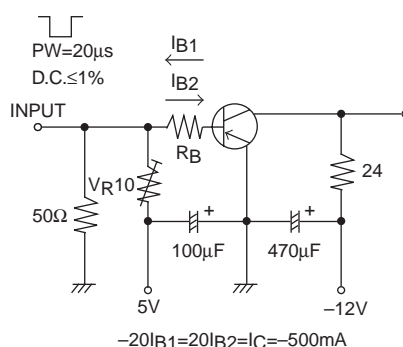
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)1}$	$I_C = -1.5A, I_B = -30mA$		-155	-230	mV
	$V_{CE(sat)2}$	$I_C = -1.5A, I_B = -75mA$		-105	-155	mV
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = -1.5A, I_B = -30mA$		-0.83	-1.2	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = -10\mu A, I_E = 0$	-30			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = -1mA, R_{BE} = \infty$	-30			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_C = -10\mu A, I_C = 0$	-5			V
Turn-ON Time	t_{on}	See specified Test Circuit.		50		ns
Storage Time	t_{stg}	See specified Test Circuit.		270		ns
Turn-OFF Time	t_f	See specified Test Circuit.		25		ns

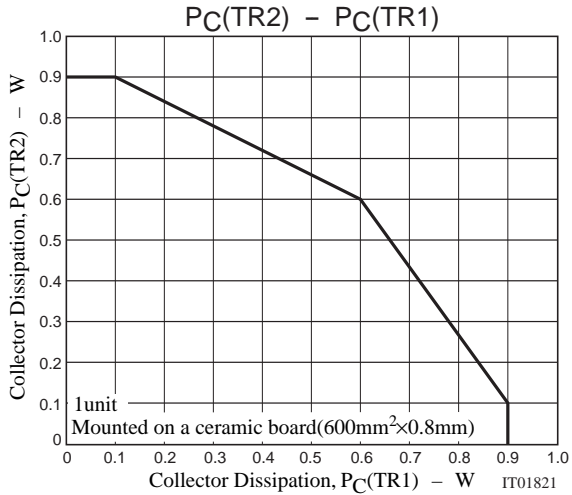
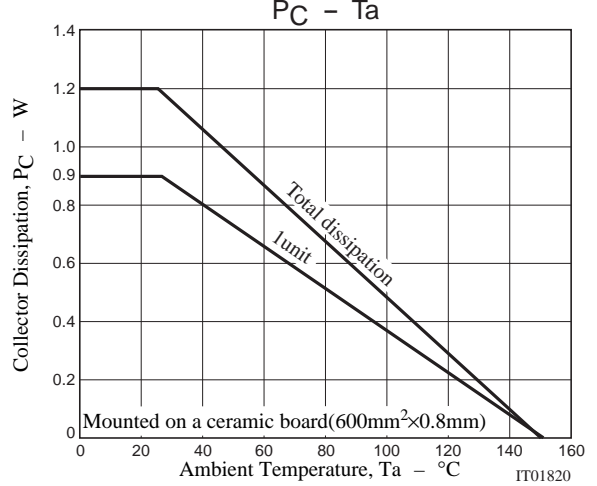
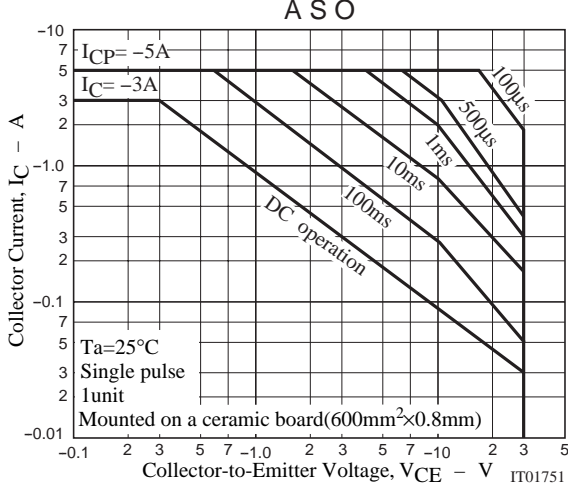
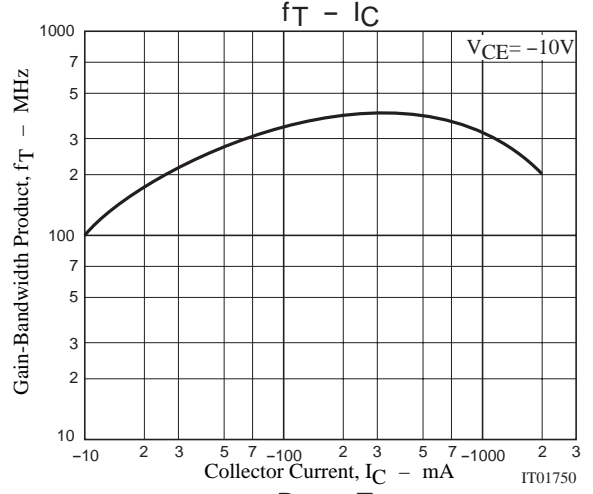
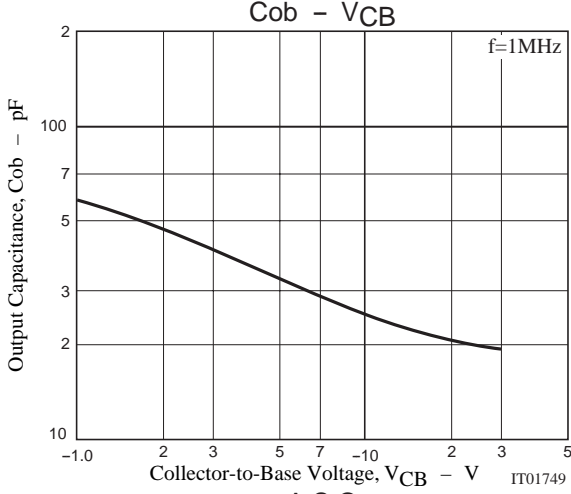
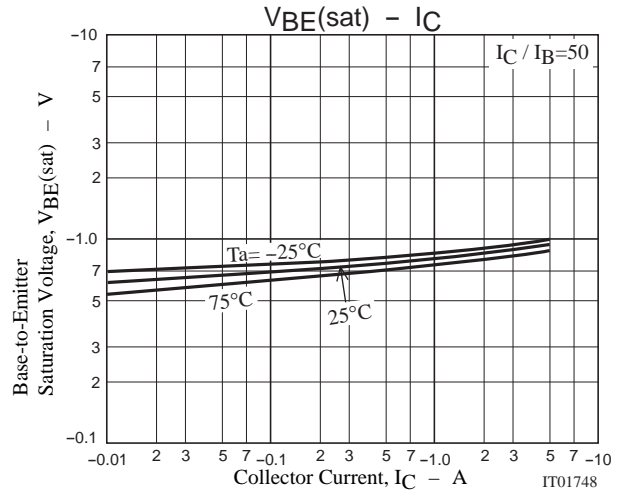
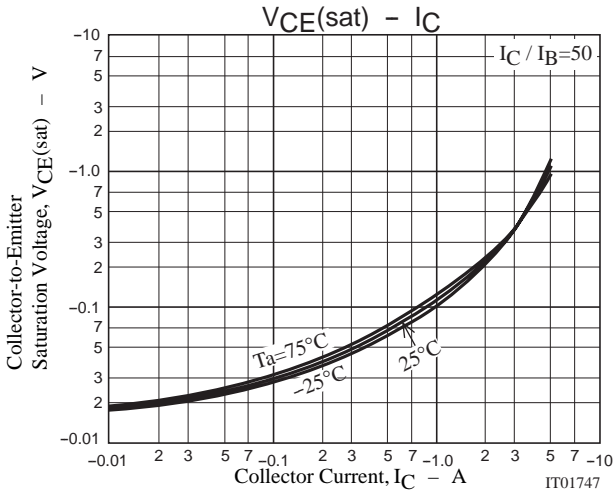
Electrical Connection



Switching Time Test Circuit



CPH5505



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