



CPH5517 — PNP / NPN Epitaxial Planar Silicon Transistor

High-Current Switching Applications

Applications

- relay drivers, lamp drivers, motor drivers.

Features

- Composite type with a PNP/NPN transistor contained in package, facilitating high-density mounting.
- The CPH5517 consists of two chips which are equivalent to the CPH3116 and the CPH3216, respectively.
- Ultrasmall package permitting applied sets to be small and slim (mounting height : 0.9mm).

Specifications () : PNP

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V _{CB0}		(-50)60	V
Collector-to-Emitter Voltage	V _{CEO}		(-)50	V
Emitter-to-Base Voltage	V _{EB0}		(-)5	V
Collector Current	I _C		(-)1.0	A
Collector Current (Pulse)	I _{CP}		(-)3	A
Base Current	I _B		(-)200	mA
Collector Dissipation	P _C	Mounted on a ceramic board (600mm ² ×0.8mm) 1unit	0.9	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 _{CBO}	V _{CB} =(-)40V, 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 =(-)100mA	200		560	
Gain-Bandwidth Product	f _T	V _{CE} =(-)10V, I _C =(-)300mA		420		MHz
Output Capacitance	C _{ob}	V _{CB} =(-)10V, f=1MHz		(9)6		pF

Marking : EM

Continued on next page.

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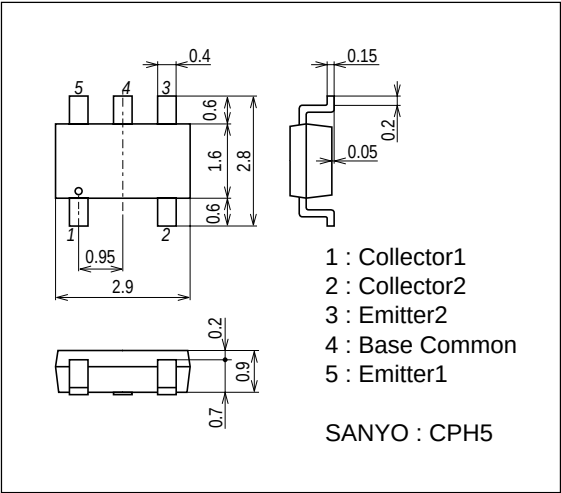
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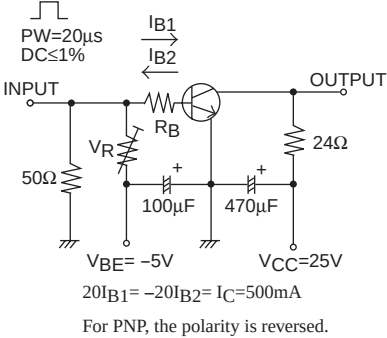
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=(-)500\text{mA}$, $I_B=(-)10\text{mA}$		(-280)	(-430)	mV
				130	190	mV
		$I_C=(-)300\text{mA}$, $I_B=(-)6\text{mA}$		(-145)	(-220)	mV
				90	135	mV
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=(-)500\text{mA}$, $I_B=(-)10\text{mA}$		(-)0.81	(-)1.2	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=(-)10\mu\text{A}$, $I_E=0$	(-50)60			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=(-)1\text{mA}$, $R_{BE}=\infty$	(-)50			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=(-)10\mu\text{A}$, $I_C=0$	(-)5			V
Turn-ON Time	t_{on}	See specified test circuit.		(36)38		ns
Storage Time	t_{stg}	See specified test circuit.		(173)332		ns
Fall Time	t_f	See specified test circuit.		(28)40		ns

Package Dimensions

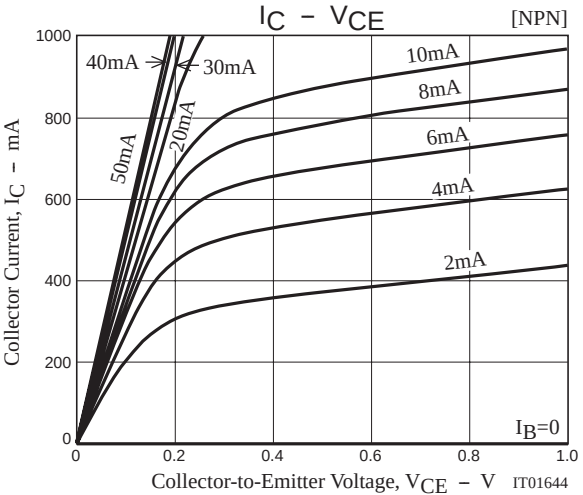
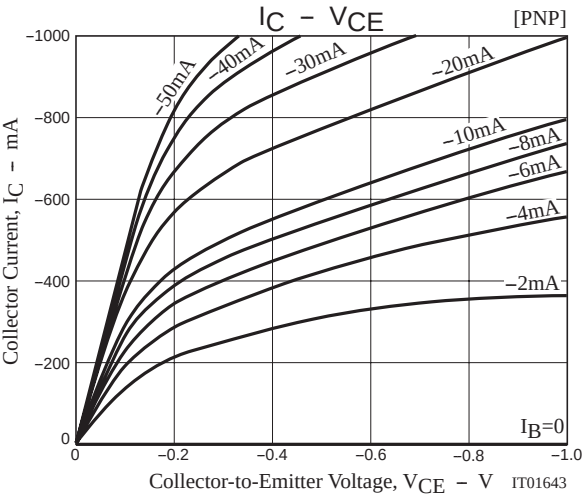
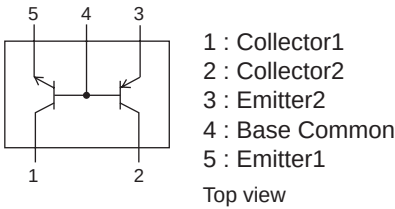
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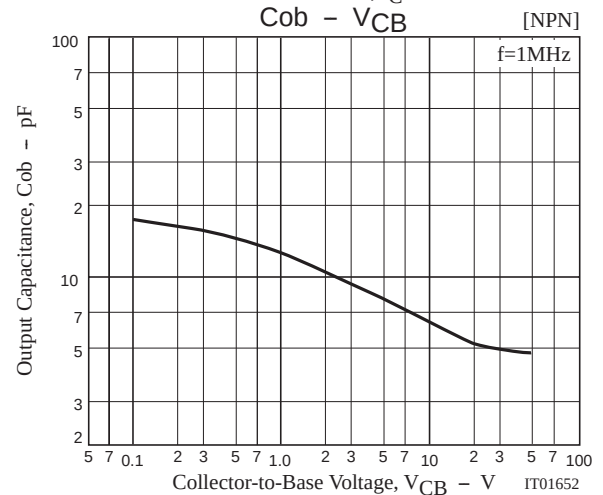
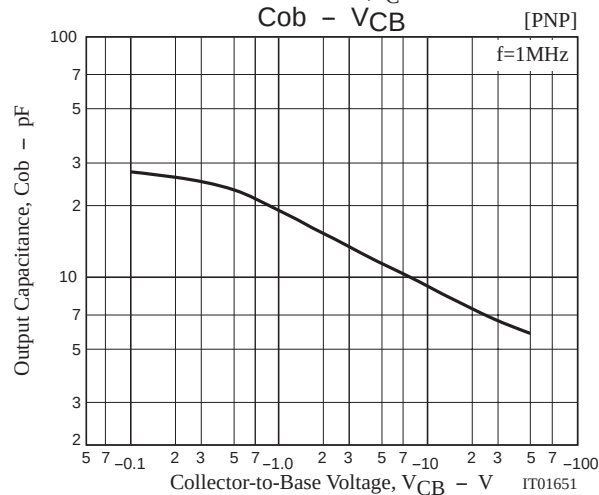
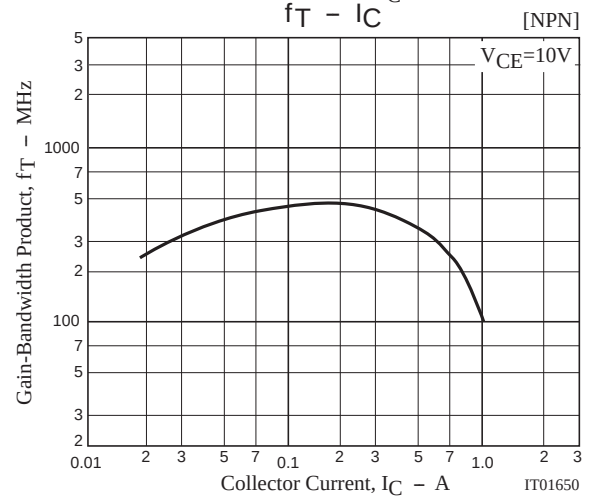
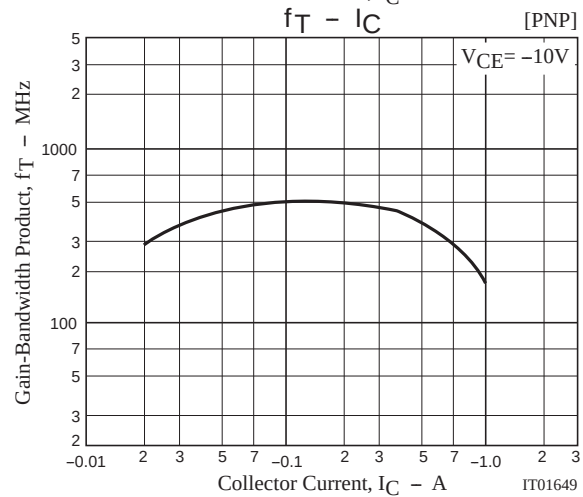
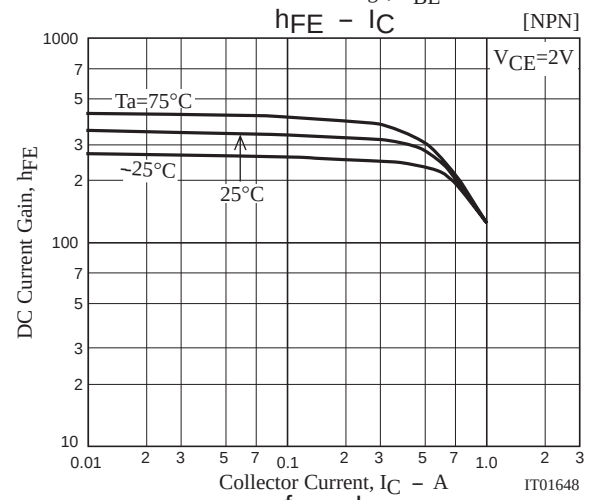
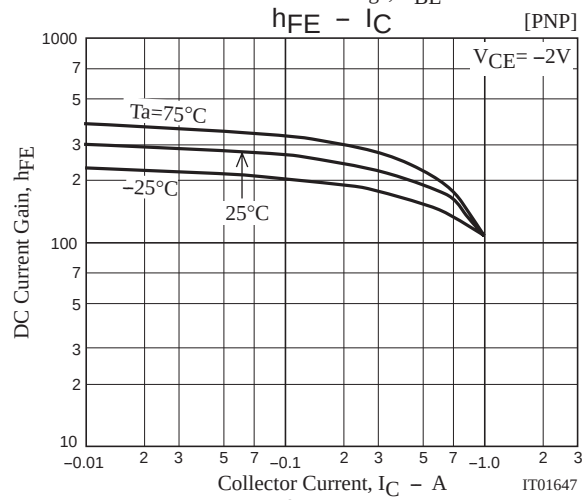
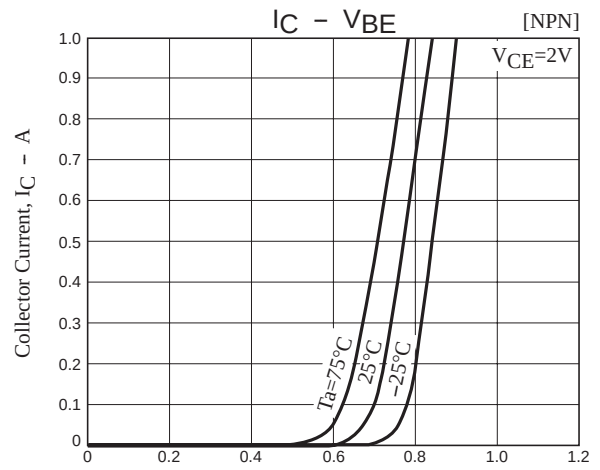
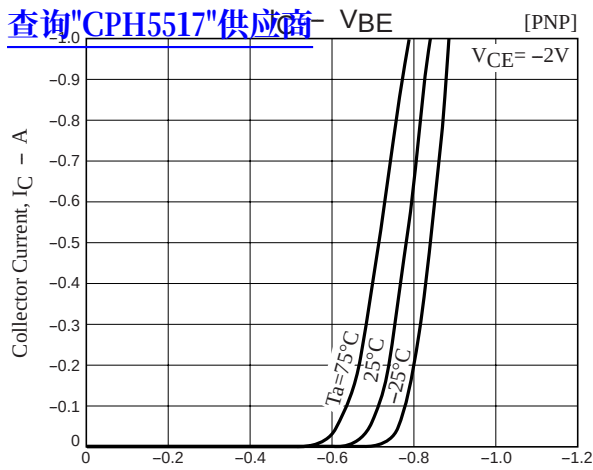


Switching Time Test Circuit

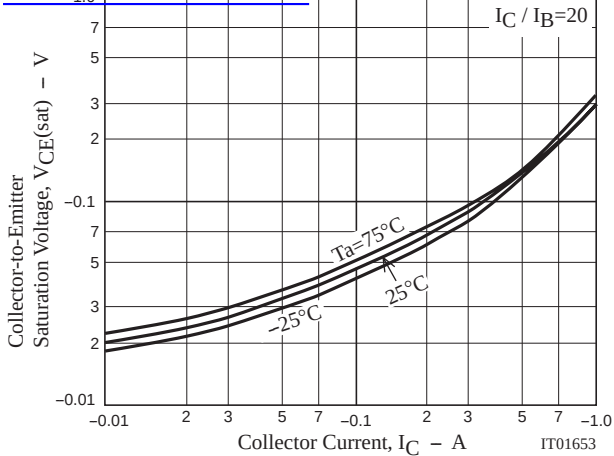


Electrical Connection

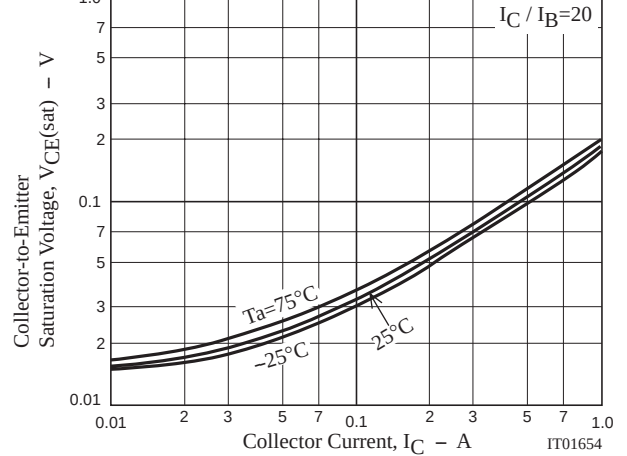


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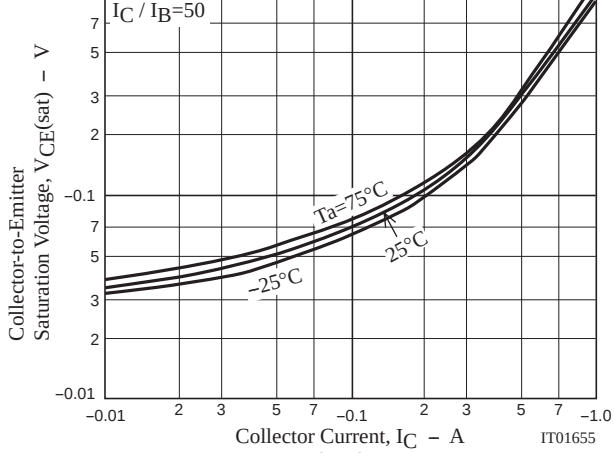
查询"CPH5517"供应商 (sat) - I_C [PNP]



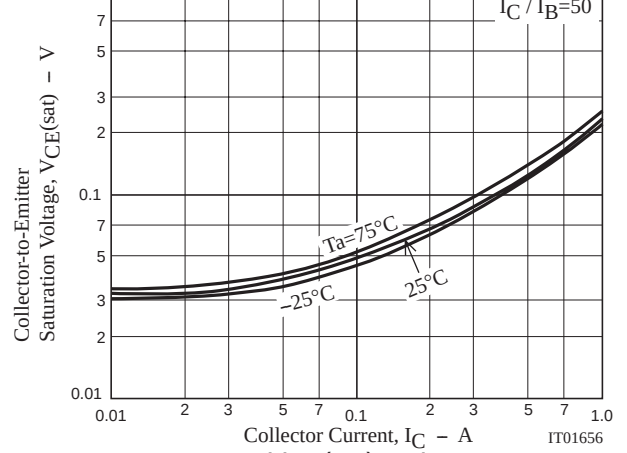
$V_{CE(sat)}$ - I_C [NPN]



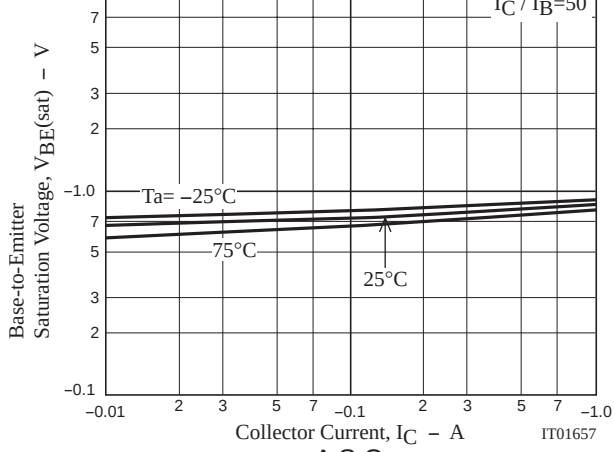
$V_{CE(sat)}$ - I_C [PNP]



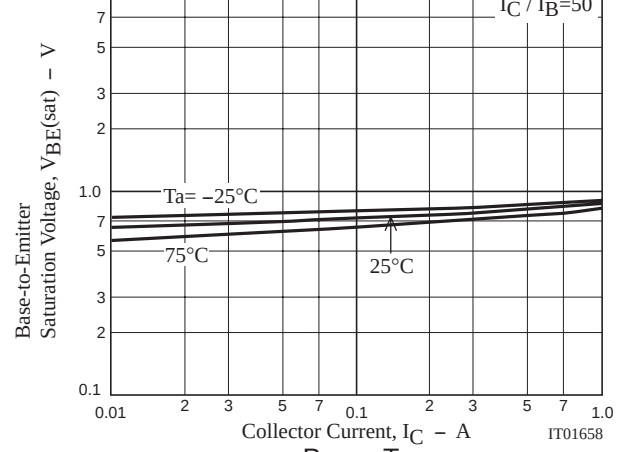
$V_{CE(sat)}$ - I_C [NPN]



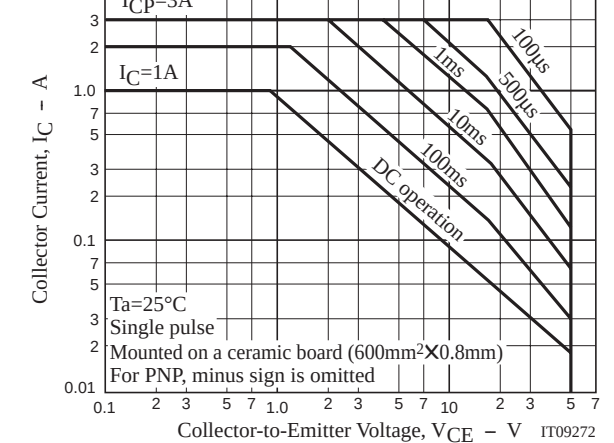
$V_{BE(sat)}$ - I_C [PNP]



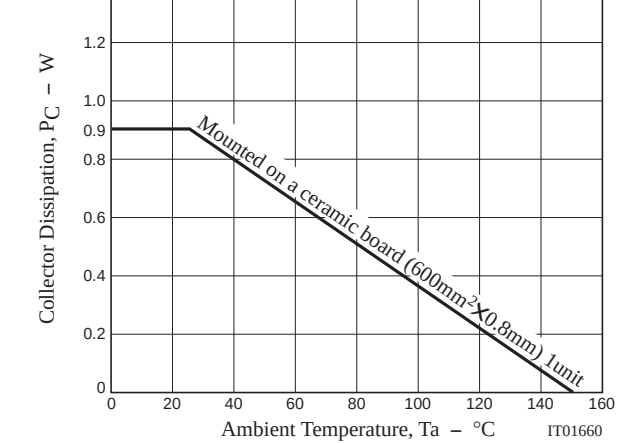
$V_{BE(sat)}$ - I_C [NPN]



ASO [PNP / NPN]



P_C - T_a [PNP / NPN]



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