



CPH6532 — NPN Epitaxial Planar Silicon Transistor

DC / DC Converter Applications

Applications

- Relay drivers, lamp drivers, motor drivers, flash.

Features

- Composite type with two NPN transistors contained in one package facilitating high-density mounting.
- The two chips contained are equivalent to the CPH3216.
- Ultrasmall package permitting applied sets to be small and slim.

Specifications

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V _{CB0}		80	V
Collector-to-Emitter Voltage	V _{CES}		80	V
Collector-to-Emitter Voltage	V _{CEO}		50	V
Emitter-to-Base Voltage	V _{EBO}		5	V
Collector Current	I _C		1.0	A
Collector Current (Pulse)	I _{CP}		2	A
Base Current	I _B		200	mA
Collector Dissipation	P _C	Mounted on a ceramic board (600mm ² ×0.8m) 1unit	0.9	W
Total Power Dissipation	P _T	Mounted on a ceramic board (600mm ² ×0.8m)	1.1	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 =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} =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		6		pF

Marking : ET

Continued on next page.

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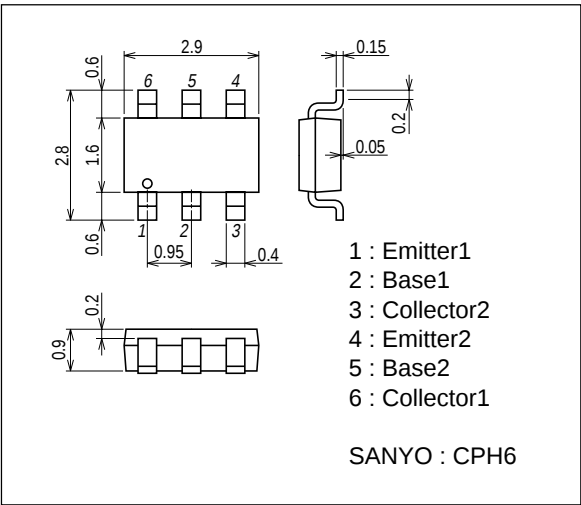
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)1}$	$I_C=500\text{mA}$, $I_B=10\text{mA}$		130	190	mV
	$V_{CE(sat)2}$	$I_C=300\text{mA}$, $I_B=6\text{mA}$		90	135	mV
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=500\text{mA}$, $I_B=10\text{mA}$		0.81	1.2	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=10\mu\text{A}$, $I_E=0\text{A}$	80			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CES}$	$I_C=100\mu\text{A}$, $R_{BE}=0\Omega$	80			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=1\text{mA}$, $R_{BE}=\infty$	50			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=10\mu\text{A}$, $I_C=0\text{A}$	5			V
Turn-ON Time	t_{on}	See specified Test Circuit.		38		ns
Storage Time	t_{stg}	See specified Test Circuit.		332		ns
Fall Time	t_f	See specified Test Circuit.		40		ns

Note) The specifications shown above are for each individual transistor.

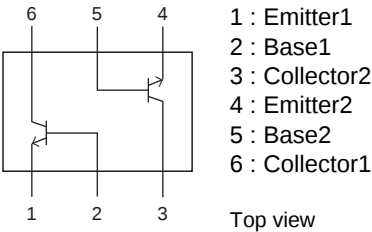
Package Dimensions

unit : mm (typ)

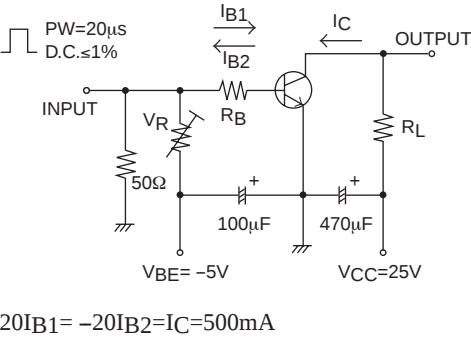
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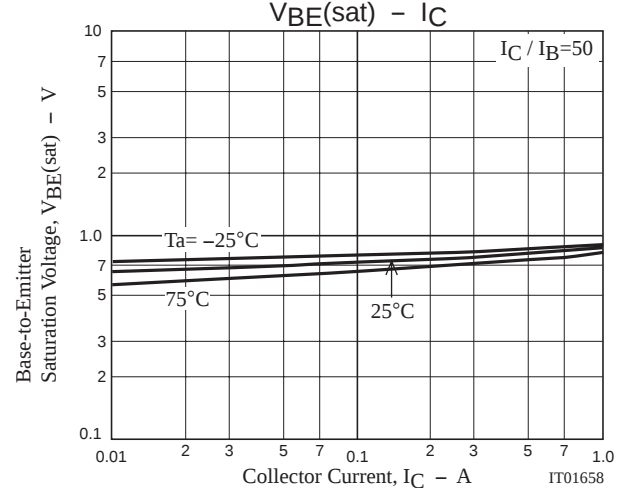
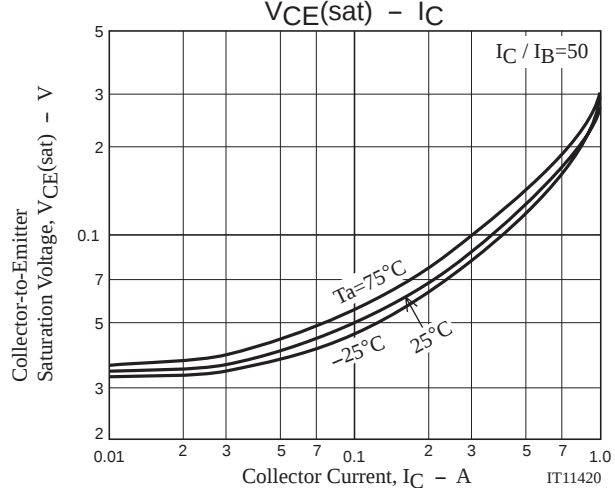
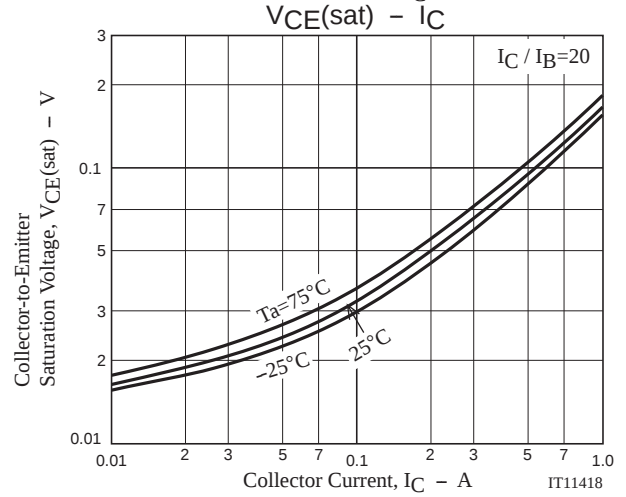
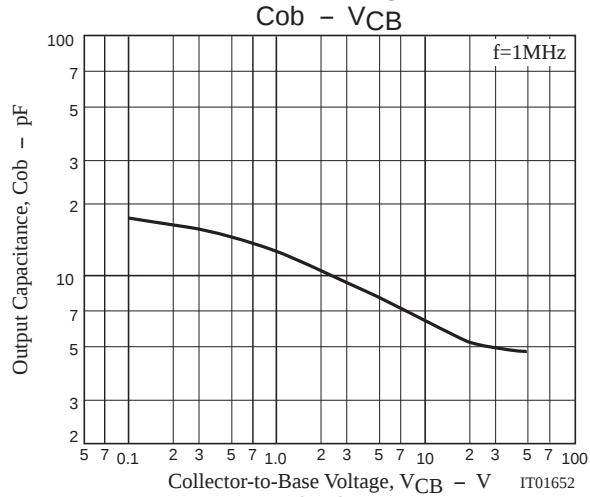
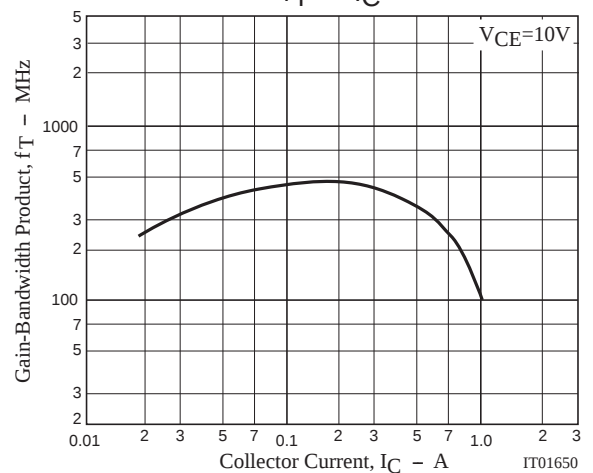
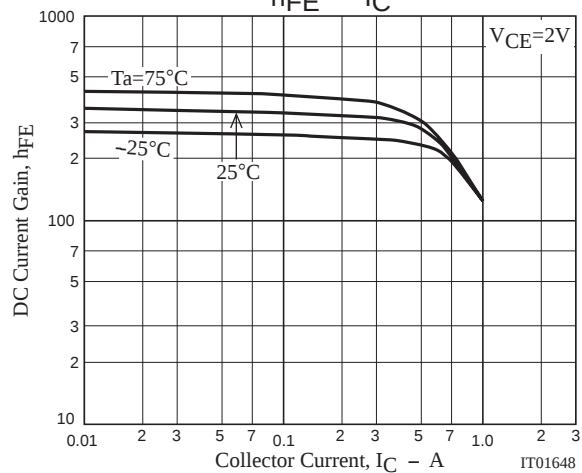
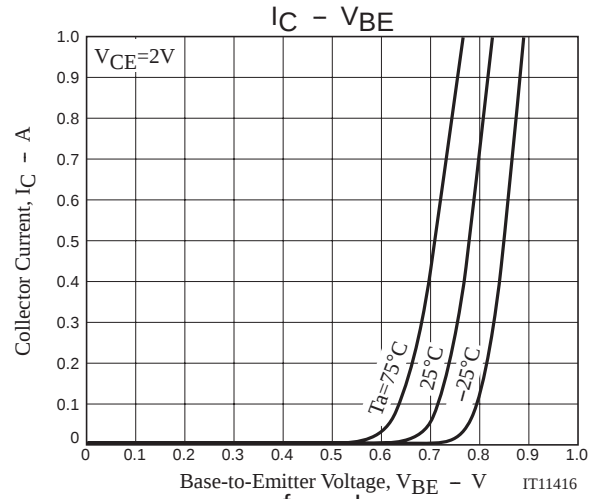
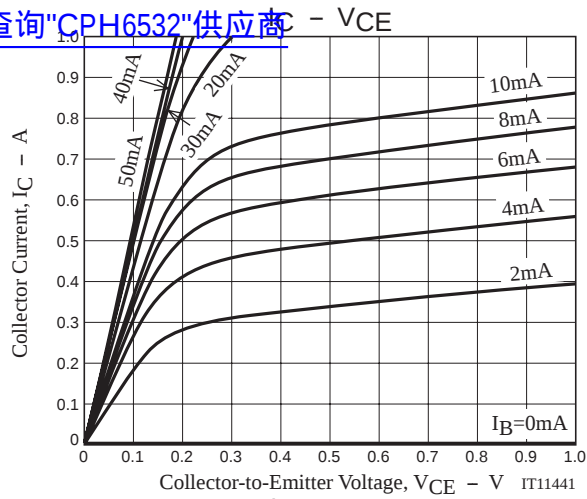


Electrical Connection

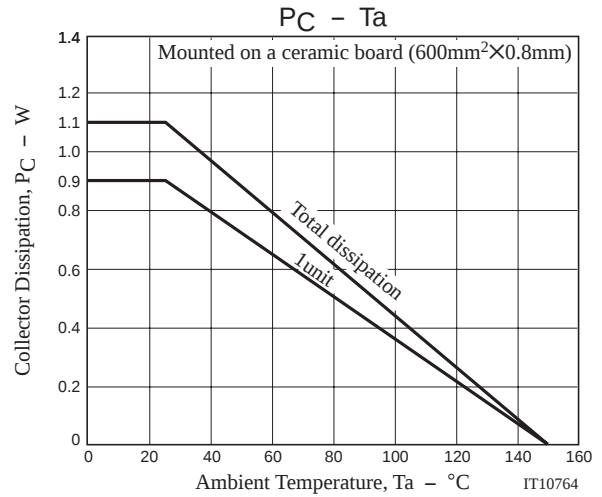
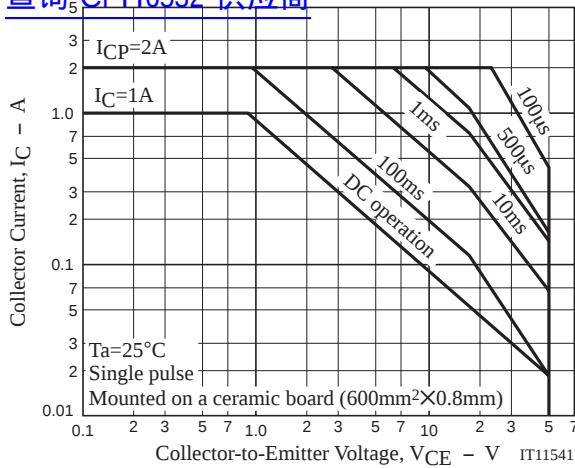


Switching Time Test Circuit



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