



SANYO Semiconductors

DATA SHEET

NPN / PNP Epitaxial Planar Silicon Transistors

CPH6071—Video Output Driver, High-Frequency Amplifier Applications

Features

- Composite type with NPN transistor and PNP transistor contained in the conventional CPH package improving the mounting efficiency greatly.
- The CPH6071 is formed with two chips, being equivalent to the 2SC4504 and the other the 2SA1724, placed in one package.

Specifications

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
[TR1(NPN Tr)]				
Collector-to-Base Voltage	V _{CB0}		30	V
Collector-to-Emitter Voltage	V _{CEO}		20	V
Emitter-to-Base Voltage	V _{EBO}		3	V
Collector Current	I _C		300	mA
Collector Current (Pulse)	I _{CP}		600	mA
Collector Dissipation	P _C	Mounted on a ceramic board (600mm ² ×0.8mm)	0.9	W
[TR2(PNP Tr)]				
Collector-to-Base Voltage	V _{CB0}		-30	V
Collector-to-Emitter Voltage	V _{CEO}		-20	V
Emitter-to-Base Voltage	V _{EBO}		-3	V
Collector Current	I _C		-300	mA
Collector Current (Pulse)	I _{CP}		-600	mA
Collector Dissipation	P _C	Mounted on a ceramic board (600mm ² ×0.8mm)	0.9	W
[Common Ratings]				
Total Dissipation	P _T	Mounted on a ceramic board (600mm ² ×0.8mm)	1.1	W
Junction Temperature	T _J		150	°C
Storage Temperature	T _{stg}		-55 to +150	°C

Marking : GH

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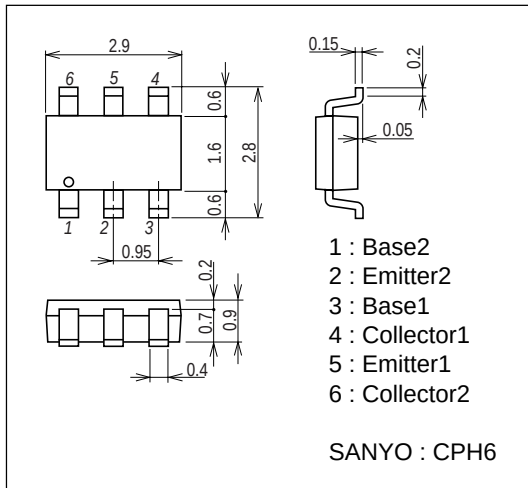
Electrical Characteristics at $T_a=25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
[TR1(NPN Tr)]						
Collector Cutoff Current	ICBO	VCB=20V, IE=0			0.1	μA
Emitter Cutoff Current	IEBO	VEB=2V, IC=0			5.0	μA
DC Current Gain	hFE(1)	VCE=5V, IC=50mA	100		200	
	hFE(2)	VCE=5V, IC=300mA	20			
Gain-Bandwidth Product	fT	VCE=5V, IC=50mA		2.2		GHz
Output Capacitance	Cob	VCB=10V, f=1MHz		2.9		pF
Reverse Transfer Capacitance	Cre	VCB=10V, f=1MHz		2.6		pF
Collector-to-Emitter Saturation Voltage	VCE(sat)	IC=100mA, IB=10mA		0.15	0.5	V
Base-to-Emitter Saturation Voltage	VBE(sat)	IC=100mA, IB=10mA		0.9	1.2	V
[TR2(PNP Tr)]						
Collector Cutoff Current	ICBO	VCB=-20V, IE=0			-0.1	μA
Emitter Cutoff Current	IEBO	VEB=-2V, IC=0			-1.0	μA
DC Current Gain	hFE(1)	VCE=-5V, IC=-50mA	15		100	
	hFE(2)	VCE=-5V, IC=-300mA	5			
Gain-Bandwidth Product	fT	VCE=-5V, IC=-100mA		1.5		GHz
Output Capacitance	Cob	VCB=-10V, f=1MHz		4.9		pF
Reverse Transfer Capacitance	Cre	VCB=-10V, f=1MHz		4.4		pF
Collector-to-Emitter Saturation Voltage	VCE(sat)	IC=-100mA, IB=-10mA		-0.4	-1.0	V
Base-to-Emitter Saturation Voltage	VBE(sat)	IC=-100mA, IB=-10mA		-0.9	-1.2	V

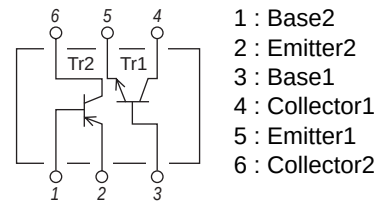
Package Dimensions

unit : mm

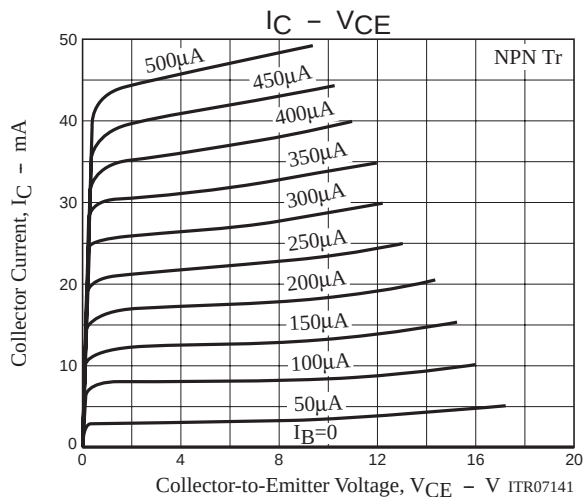
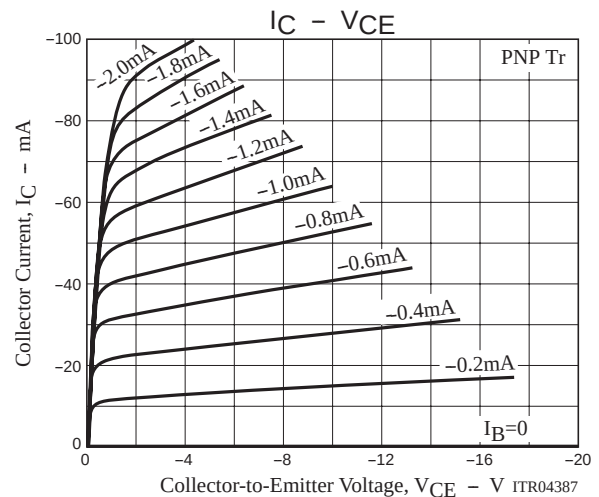
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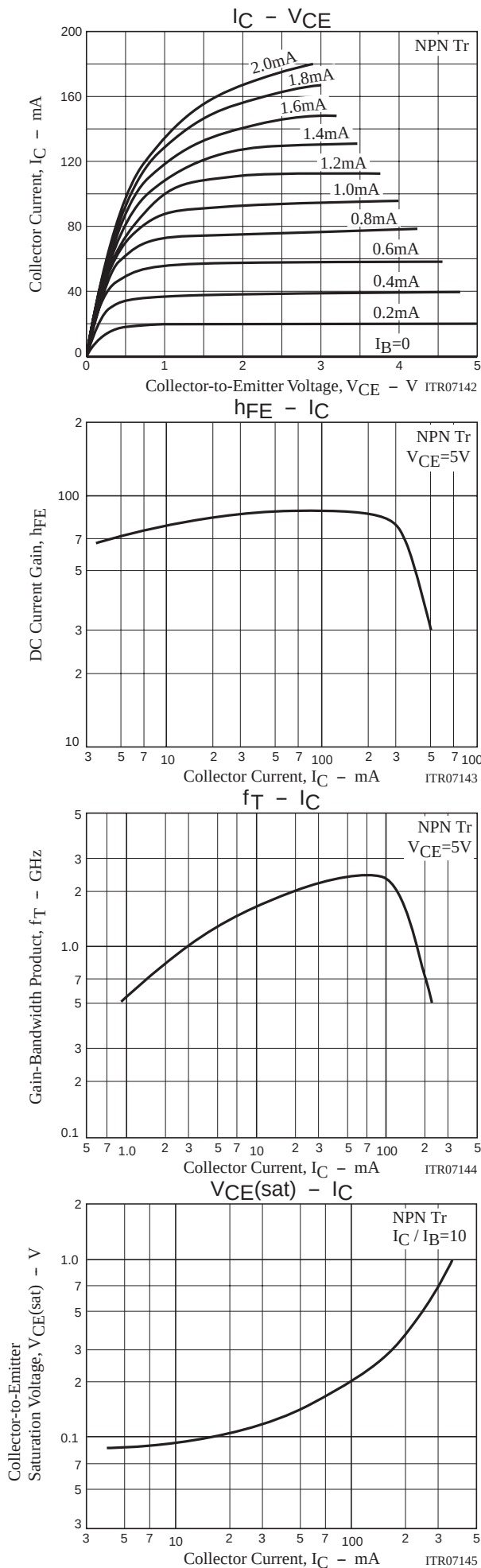
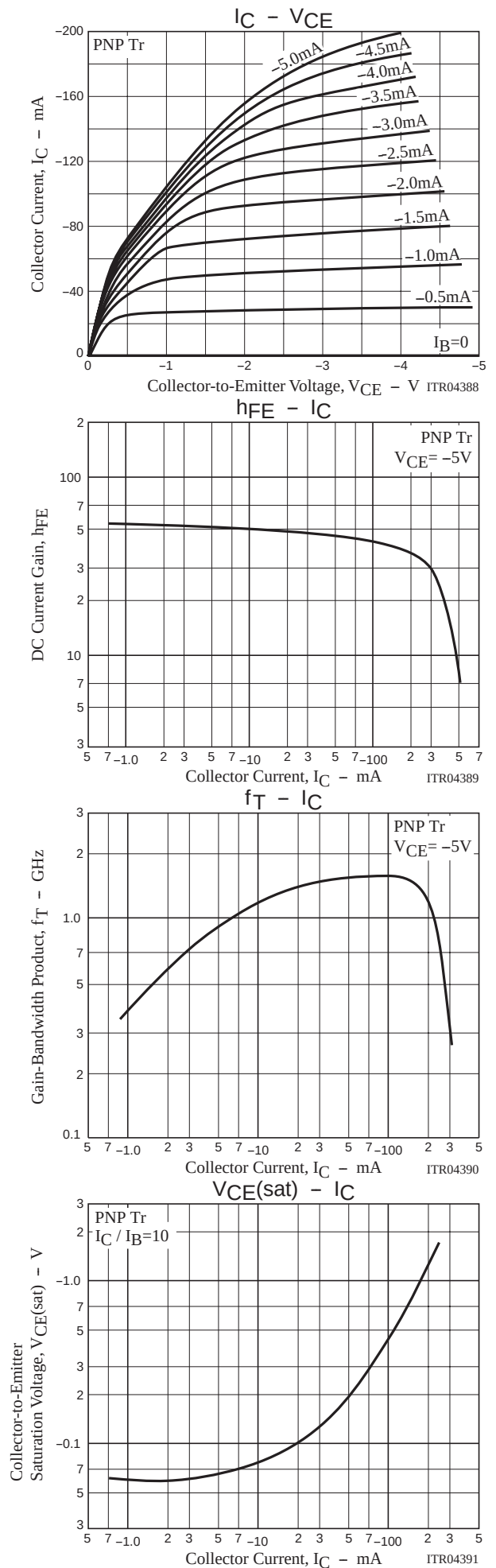


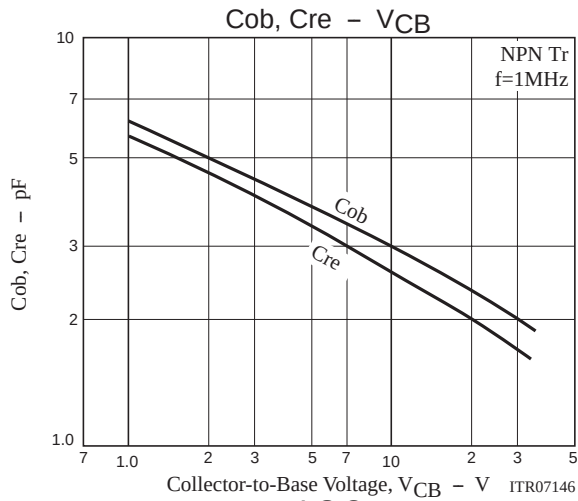
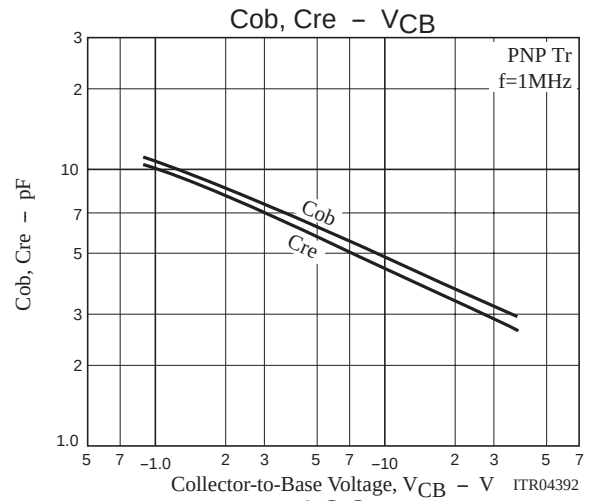
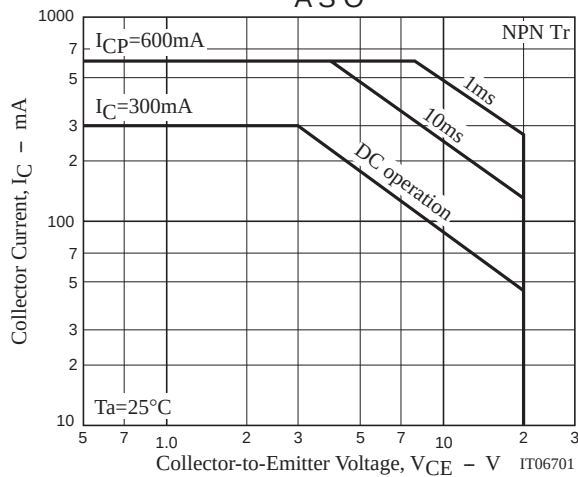
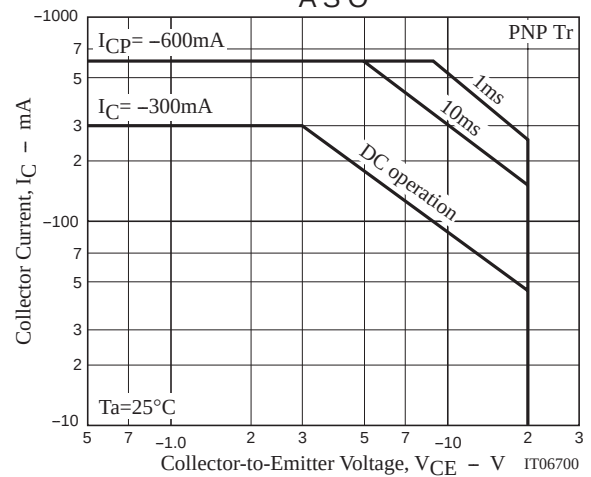
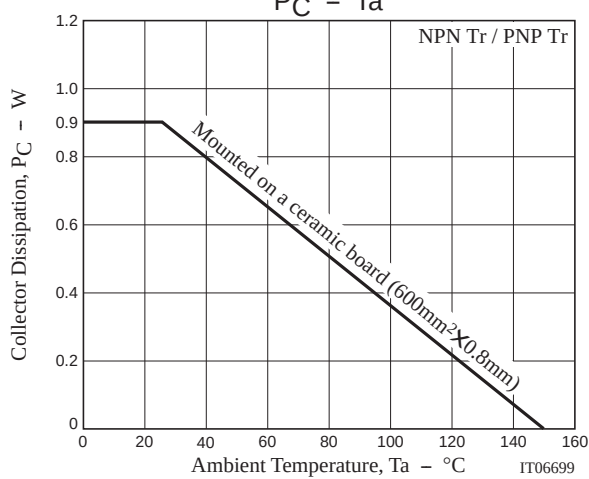
Electrical Connection



Top view







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