



SANYO Semiconductors

DATA SHEET

CPH6005 — PNP Epitaxial Planar Silicon Transistor

Video Output Driver, High-Frequency Amplifier Applications

Features

- High f_T ($f_T=1.5\text{GHz typ}$).
- Large current ($I_C=-300\text{mA}$).
- Adoption of FBET process.

Specifications

Absolute Maximum Ratings at $T_a=25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CBO}		-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	When mounted on ceramic substrate (600mm ² ×0.8mm)	1.0	W
Junction Temperature	T_J		150	°C
Storage Temperature	T_{stg}		-55 to +150	°C

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

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	$V_{CB}=-20\text{V}, I_E=0\text{A}$			-0.1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=-2\text{V}, I_C=0\text{A}$			-1.0	μA
DC Current Gain	h_{FE1}	$V_{CE}=-5\text{V}, I_C=-50\text{mA}$	15		100	
	h_{FE2}	$V_{CE}=-5\text{V}, I_C=-300\text{mA}$	5			
Gain-Bandwidth Product	f_T	$V_{CE}=-5\text{V}, I_C=-100\text{mA}$		1.5		GHz
Output Capacitance	C_{ob}	$V_{CB}=-10\text{V}, f=1\text{MHz}$		4.9		pF
Reverse Transfer Capacitance	C_{re}	$V_{CB}=-10\text{V}, f=1\text{MHz}$		4.4		pF

Marking : GE

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CPH6005

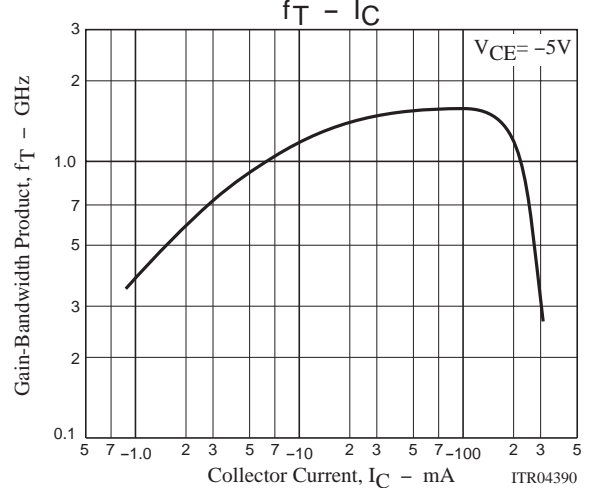
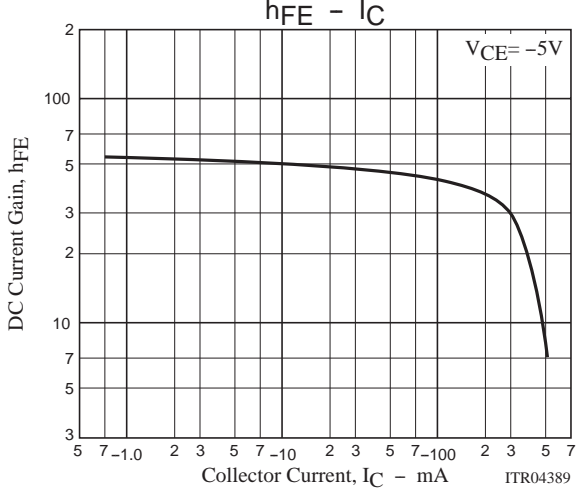
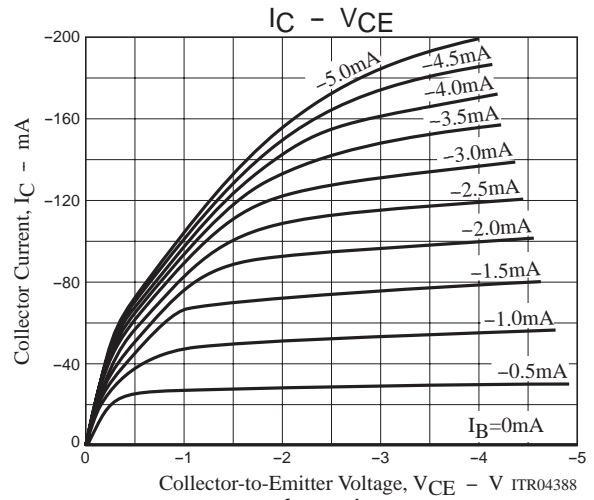
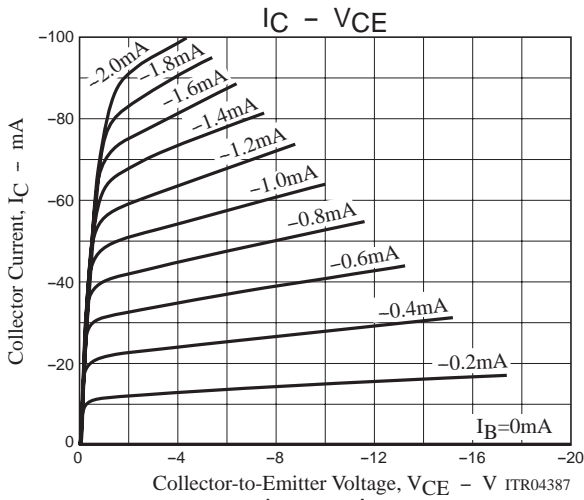
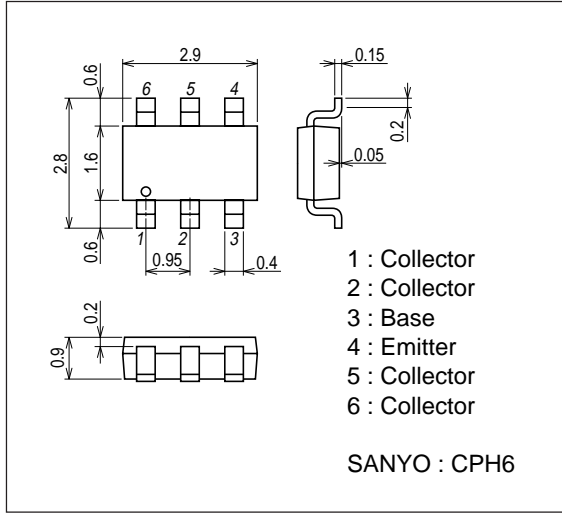
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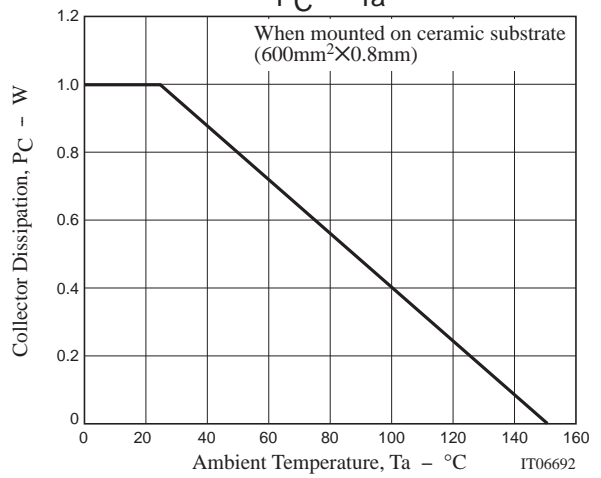
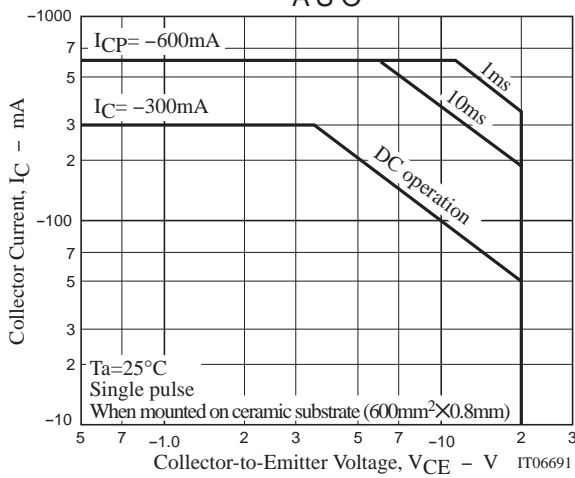
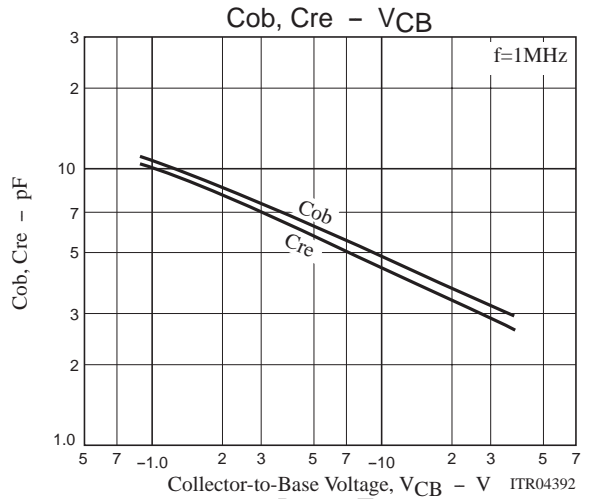
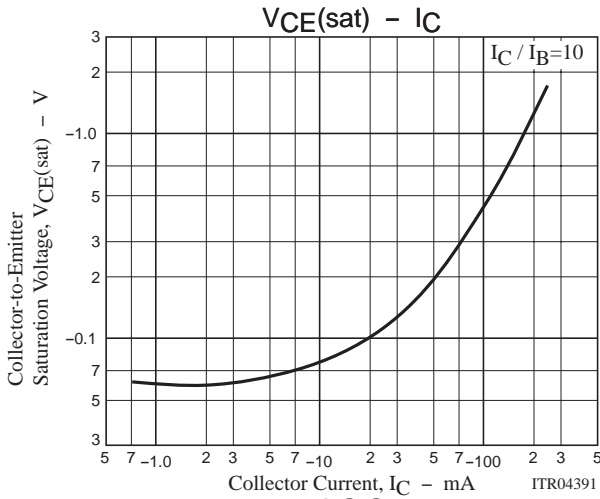
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -100mA, I_B = -10mA$		-0.4	-1.0	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = -100mA, I_B = -10mA$		-0.9	-1.2	V

Package Dimensions

unit : mm (typ)

7018A-002







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