



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China





CPH5505

Bipolar Transistor -30V, -3A, Low $V_{CE(sat)}$, PNP Dual CPH5

ON Semiconductor®

<http://onsemi.com>

Applications

- Relay drivers, lamp drivers, motor drivers, flash

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 $T_a=25^\circ\text{C}$

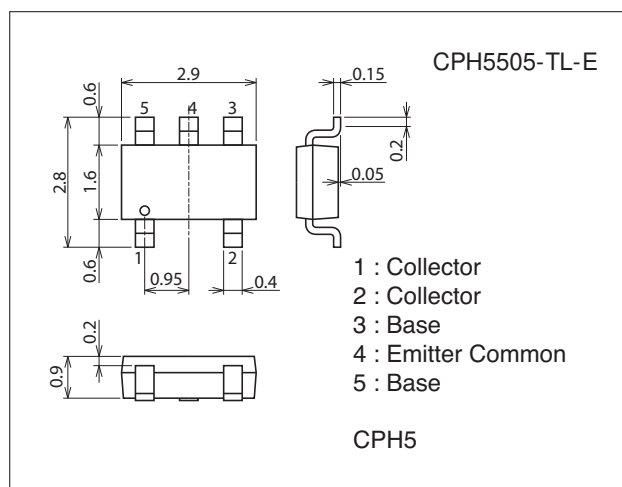
Parameter	Symbol	Conditions	Ratings	Unit
Collector to Base Voltage	V_{CBO}		-30	V
Collector to Emitter Voltage	V_{CEO}		-30	V
Emitter to Base Voltage	V_{EBO}		-5	V
Collector Current	I_C		-3	A
Collector Current (Pulse)	I_{CP}		-5	A
Base Current	I_B		-600	mA
Collector Dissipation	P_C	When mounted on ceramic substrate (600mm ² ×0.8mm)	0.9	W
Total Dissipation	P_T	When mounted on ceramic substrate (600mm ² ×0.8mm)	1.2	W
Junction Temperature	T_J		150	°C
Storage Temperature	T_{stg}		-55 to +150	°C

Stresses exceeding Maximum Ratings may damage the device. Maximum Ratings are stress ratings only. Functional operation above the Recommended Operating Conditions is not implied. Extended exposure to stresses above the Recommended Operating Conditions may affect device reliability.

Package Dimensions

unit : mm (typ)

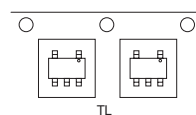
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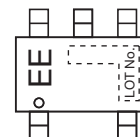
Product & Package Information

- Package : CPH5
- JEITA, JEDEC : SC-74A, SOT-25
- Minimum Packing Quantity : 3,000 pcs./reel

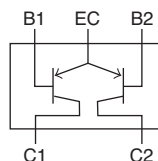
Packing Type : TL



Marking



Electrical Connection

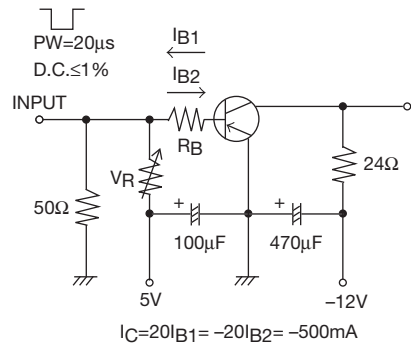


CPH5505

Electrical Characteristics at Ta=25°C

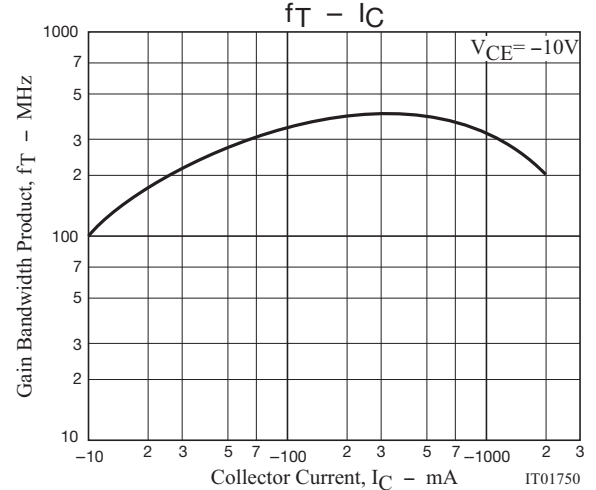
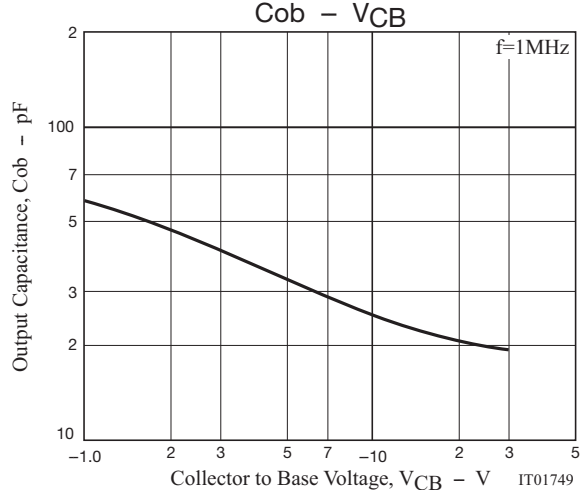
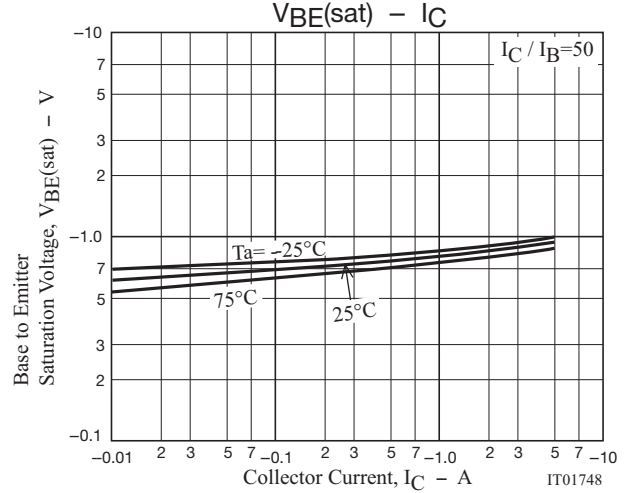
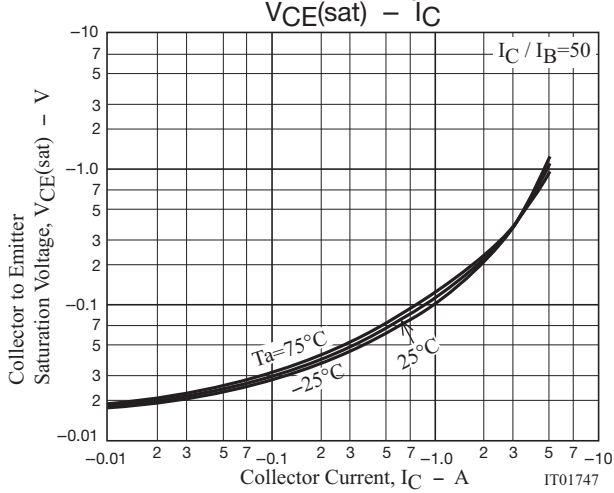
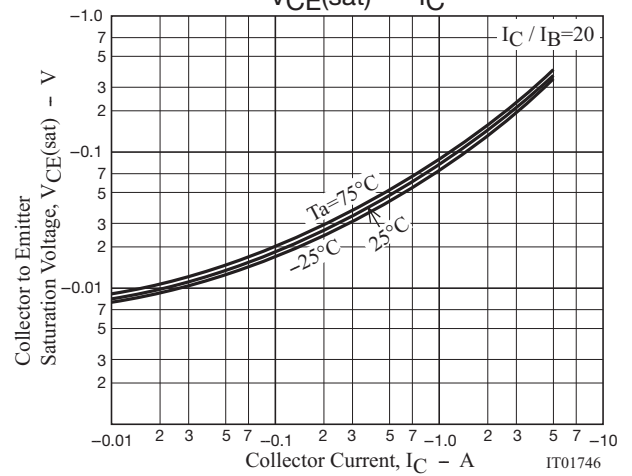
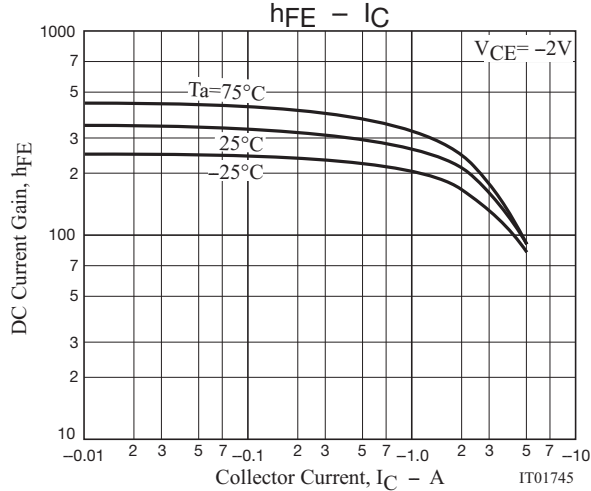
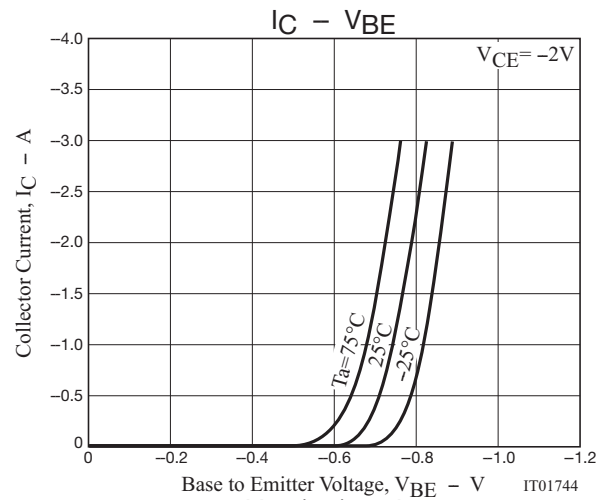
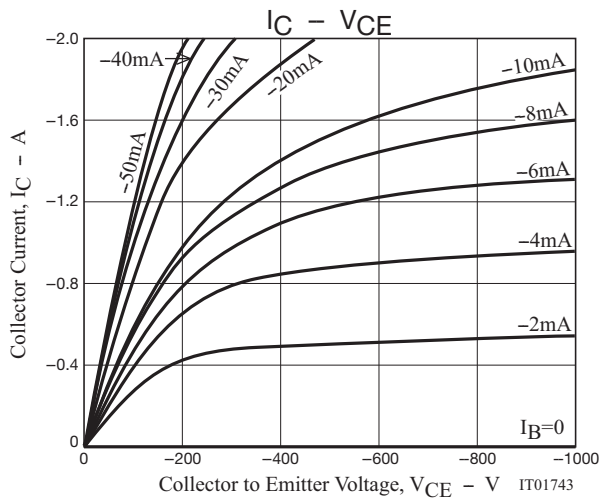
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	ICBO	V _{CB} = -30V, I _E =0A			-0.1	μA
Emitter Cutoff Current	IEBO	V _{EB} = -4V, I _C =0A			-0.1	μA
DC Current Gain	h _{FE}	V _{CE} = -2V, I _C = -500mA	200		560	
Gain-Bandwidth Product	f _T	V _{CE} = -10V, I _C = -500mA		380		MHz
Output Capacitance	Cob	V _{CB} = -10V, f=1MHz		25		pF
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 = -10μA, I _E =0A	-30			V
Collector to Emitter Breakdown Voltage	V _{(BR)CEO}	I _C = -1mA, R _{BE} =∞	-30			V
Emitter to Base Breakdown Voltage	V _{(BR)EBO}	I _E = -10μA, I _C =0A	-5			V
Turn-ON Time	t _{on}	See specified Test Circuit.		50		ns
Storage Time	t _{stg}			270		ns
Turn-OFF Time	t _f			25		ns

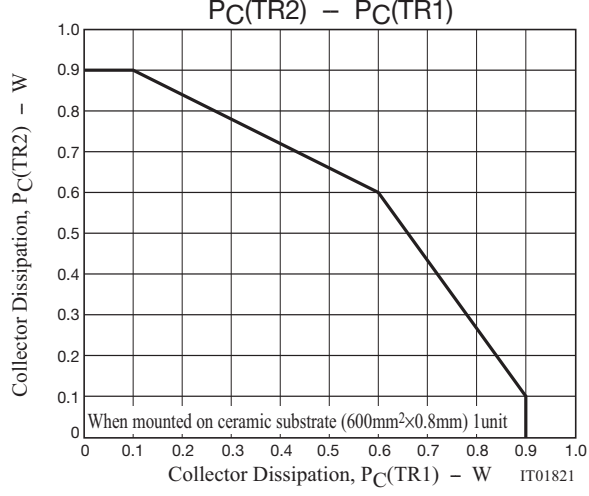
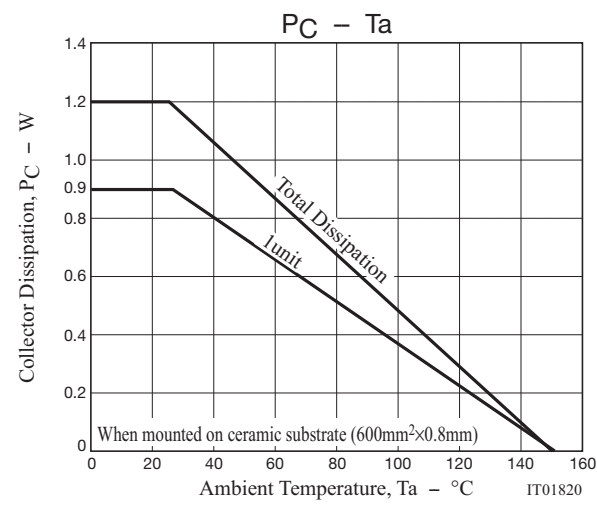
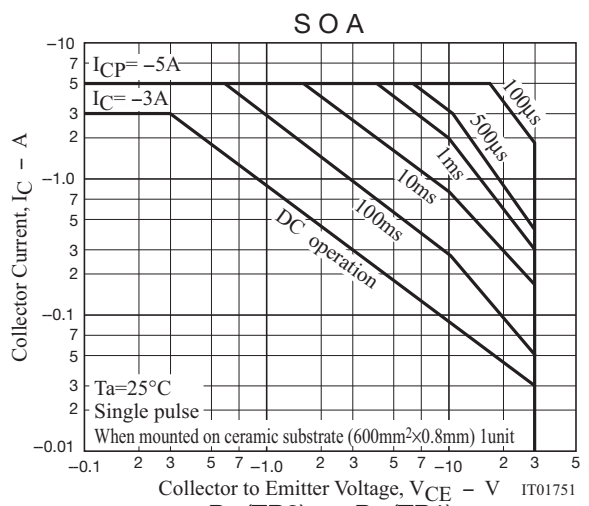
Switching Time Test Circuit



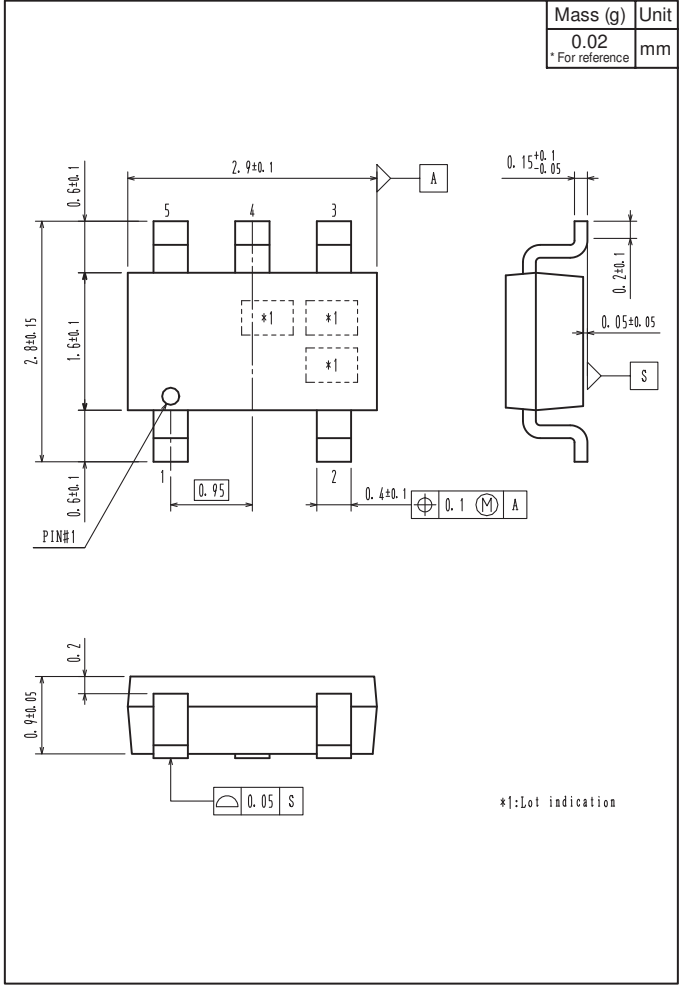
Ordering Information

Device	Package	Shipping	memo
CPH5505-TL-E	CPH5	3,000pcs./reel	Pb Free

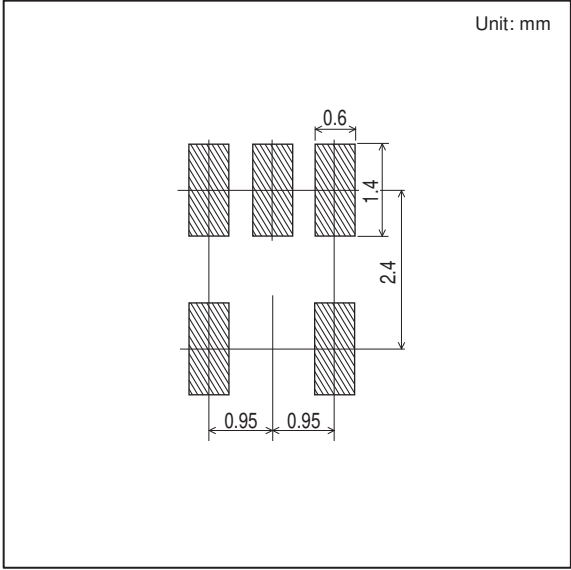




Outline Drawing
CPH5505-TL-E



Land Pattern Example



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