



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

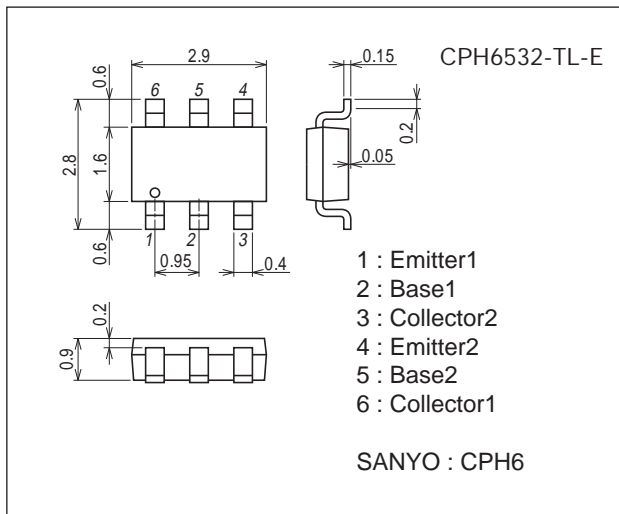
Specifications

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	VCBO		80	V
Collector-to-Emitter Voltage	VCES		80	V
Collector-to-Emitter Voltage	VCEO		50	V
Emitter-to-Base Voltage	VEBO		5	V
Collector Current	IC		1.0	A
Collector Current (Pulse)	ICP		2	A
Base Current	IB		200	mA
Collector Dissipation	PC	When mounted on ceramic substrate (600mm ² ×0.8mm) 1unit	0.9	W
Total Power Dissipation	PT	When mounted on ceramic substrate (600mm ² ×0.8mm)	1.1	W
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		-55 to +150	°C

Package Dimensions

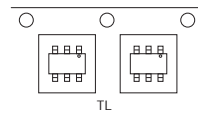
unit : mm (typ)
7018A-006



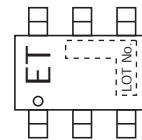
Product & Package Information

- Package : CPH6
- JEITA, JEDEC : SC-74, SOT-26, SOT-457
- Minimum Packing Quantity : 3,000 pcs./reel

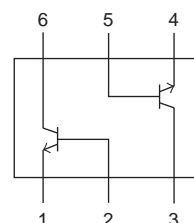
Packing Type: TL



Marking



Electrical Connection

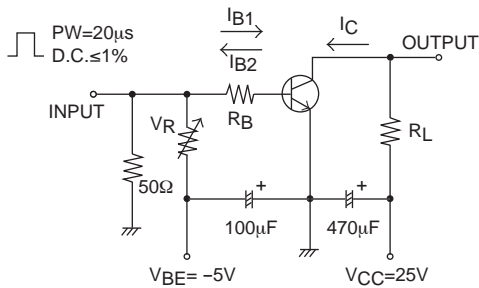


CPH6532

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

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	$V_{CB}=40\text{V}, I_E=0\text{A}$			0.1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=4\text{V}, I_C=0\text{A}$			0.1	μA
DC Current Gain	h_{FE}	$V_{CE}=2\text{V}, I_C=100\text{mA}$	200		560	
Gain-Bandwidth Product	f_T	$V_{CE}=10\text{V}, I_C=300\text{mA}$		420		MHz
Output Capacitance	C_{ob}	$V_{CB}=10\text{V}, f=1\text{MHz}$		6		pF
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}			332		ns
Fall Time	t_f			40		ns

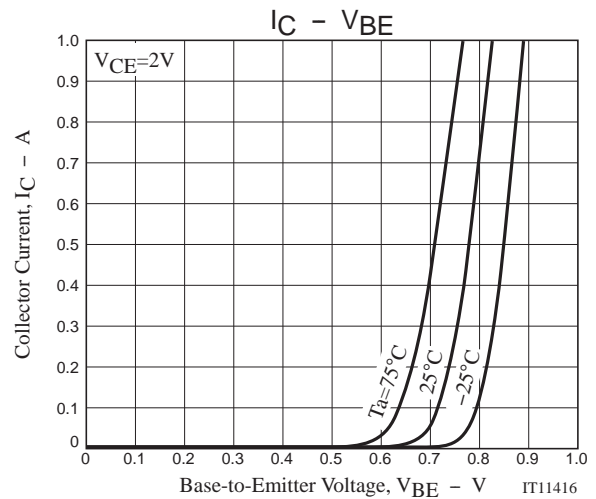
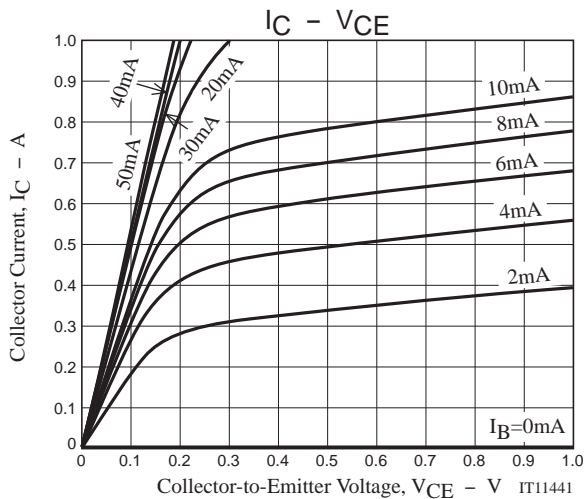
Switching Time Test Circuit

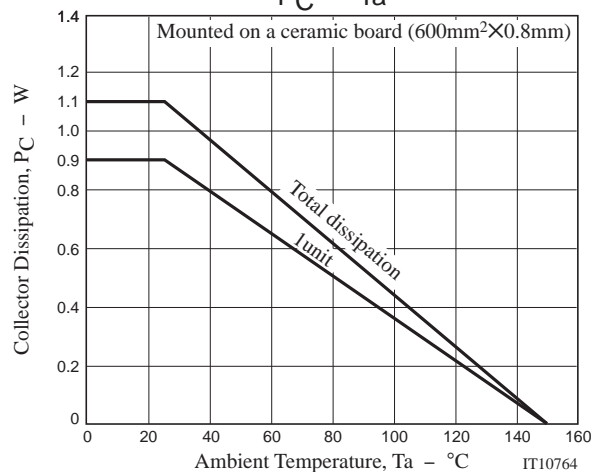
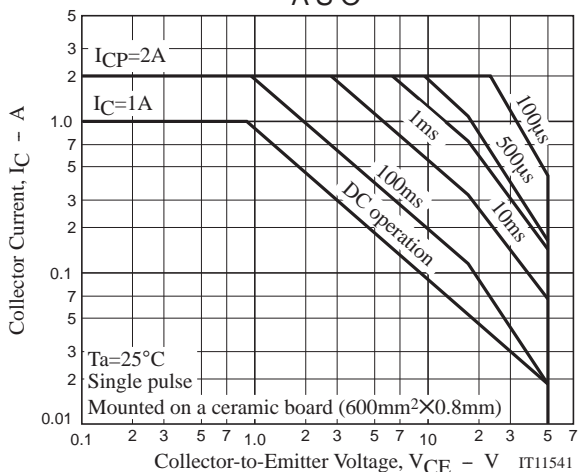
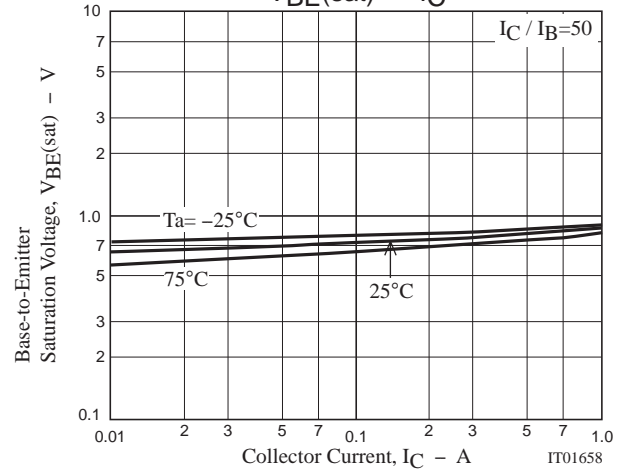
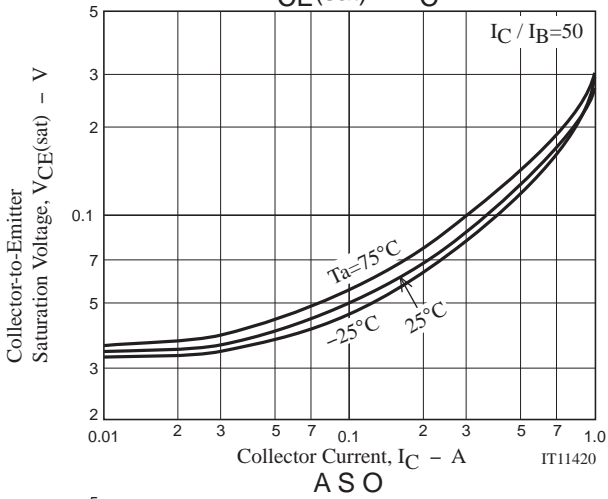
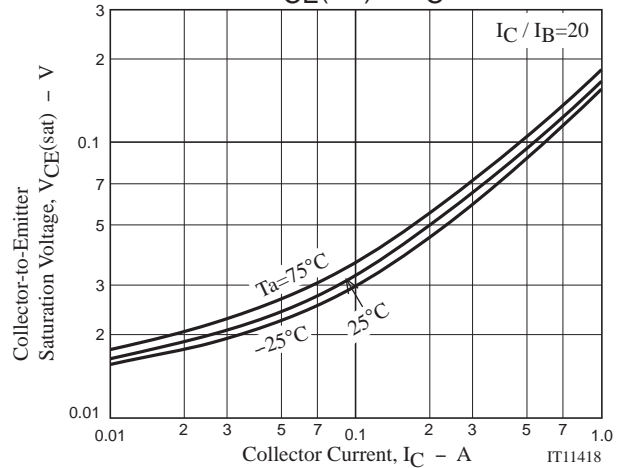
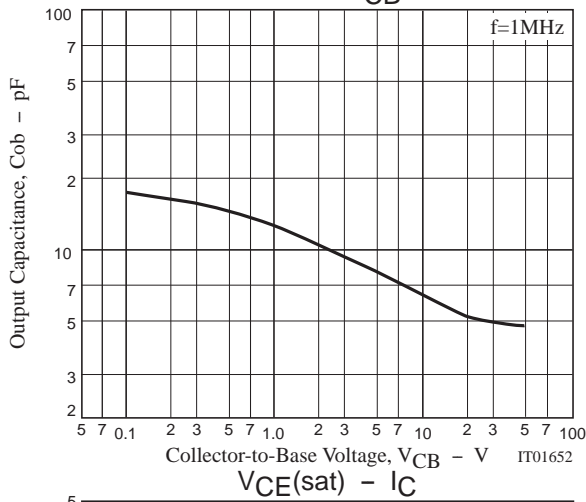
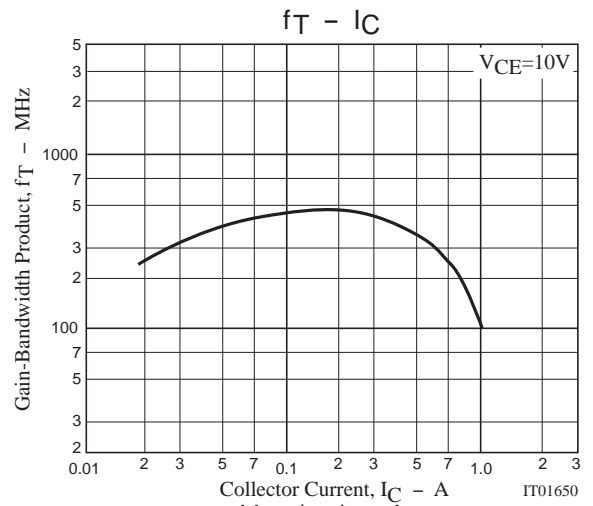
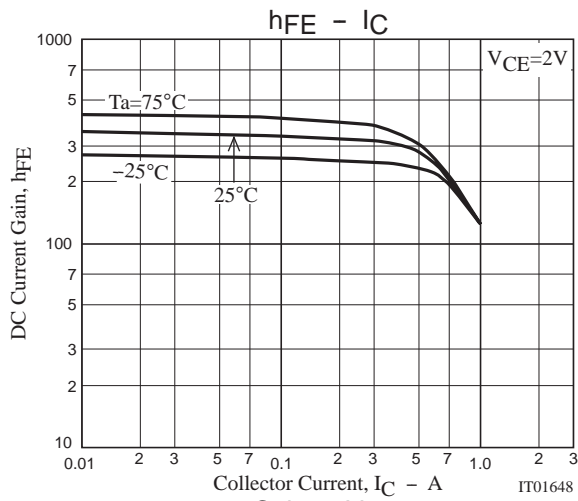


$$20I_{B1} = -20I_{B2} = I_C = 500\text{mA}$$

Ordering Information

Device	Package	Shipping	memo
CPH6532-TL-E	CPH6	3,000pcs./reel	Pb Free





Embossed Taping Specification

CPH6532-TL-E

1. Packing Format

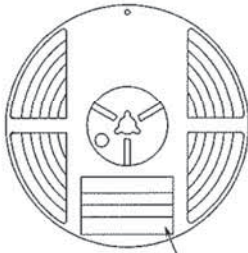
Package Name	Carrier Tape Type	Maximum Number of devices contained (pcs)			Packing format	
		Reel	Inner box	Outer box	Inner BOX (C-1)	Outer BOX (A-7)
CPH6	CPH6	3,000	15,000	90,000	5 reels contained Dimensions:mm (external) 183×72×185	6 inner boxes contained Dimensions:mm (external) 440×195×210

Reel label, Inner box label
(unit:mm)

Outer box label

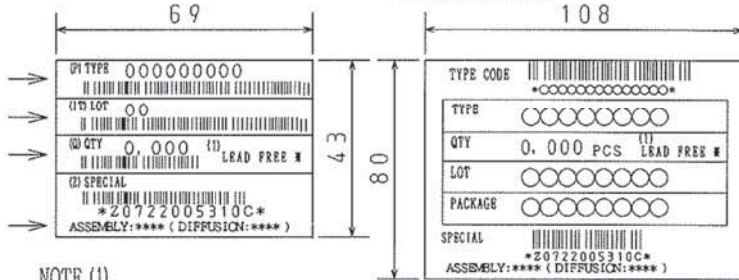
It is a label at the time of factory shipments.
The form of a label may change in physical distribution process.

Packing method



Reel label

Type No.
LOT No.
Quantity
Origin



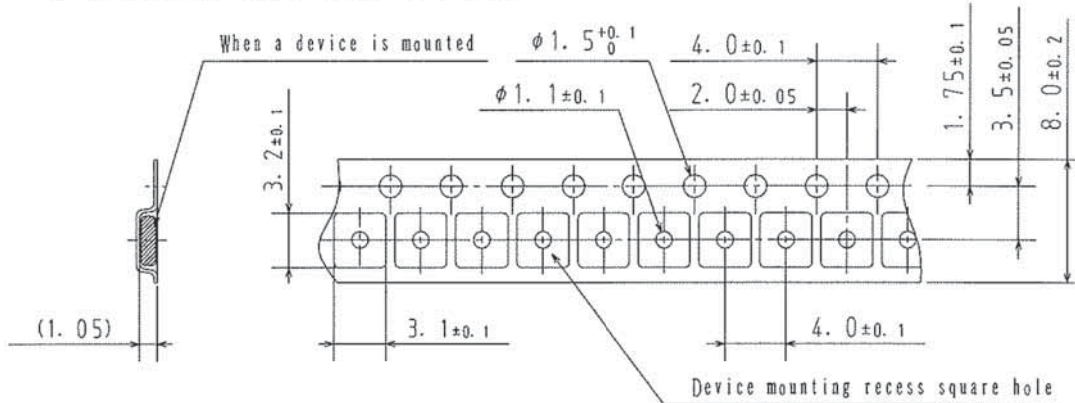
NOTE (1)

The LEAD FREE * description shows that the surface treatment of the terminal is lead free.

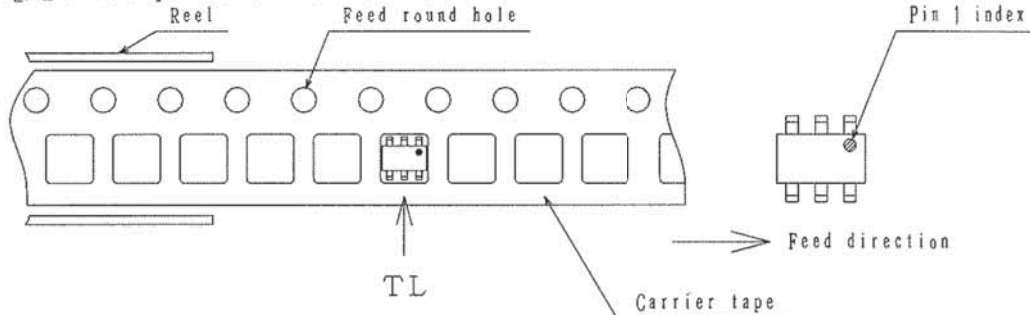
Label	JEITA Phase
LEAD FREE 3	JEITA Phase 3A
LEAD FREE 4	JEITA Phase 3

2. Taping configuration

2-1. Carrier tape size (unit:mm)



2-2. Device placement direction

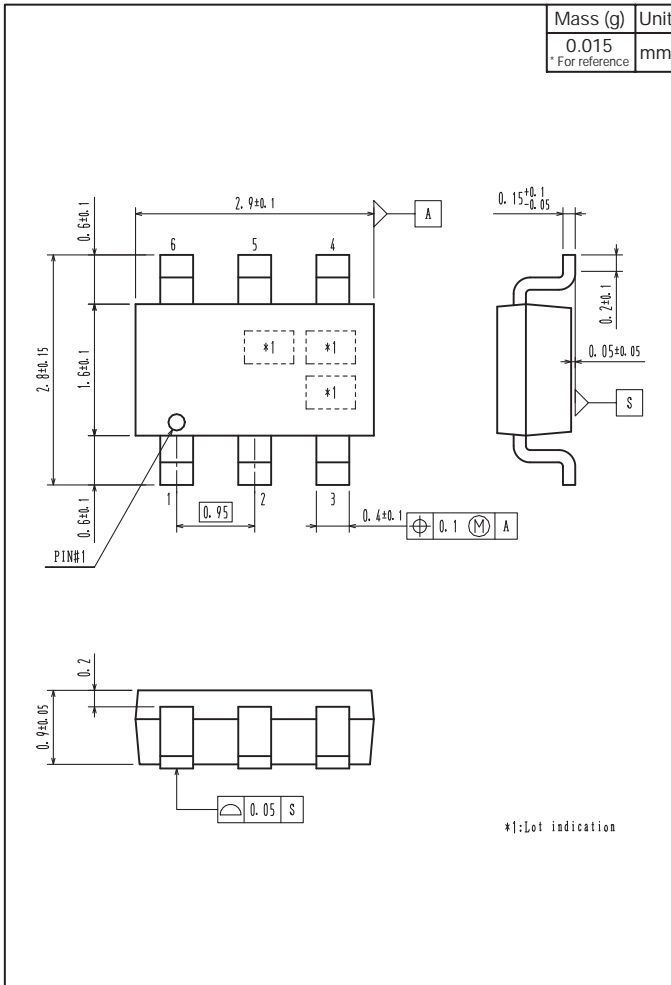


Those with pin 1 index on the feed hole side.....TL

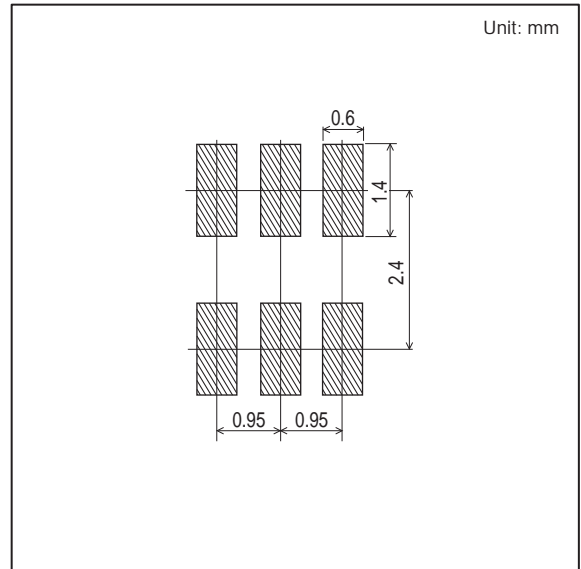
CPH6532

Outline Drawing

CPH6532-TL-E



Land Pattern Example



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