Ordering number : ENN7419

PNP Epitaxial Planar Silicon Transistor

CPH5514

Switching Applications (with Bias Resistance)

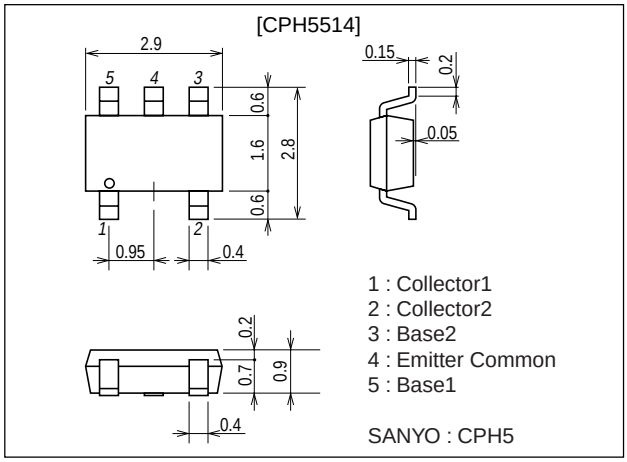
Features

- On-chip bias resistance (R1=10kΩ, R2=10kΩ).
- Composite type with 2 transistors contained in the CPH package currently in use, improving the mounting efficiency greatly.
- The CPH5514 is formed with two chips, being equivalent to the 2SA1344, placed in one package.
- Excellent in thermal equilibrium and pair capability.

Package Dimensions

unit : mm

2218



Specifications

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CBO}		-50	V
Collector-to-Emitter Voltage	V_{CEO}		-50	V
Emitter-to-Base Voltage	V_{EBO}		-10	V
Collector Current	I_C		-100	mA
Collector Current (Pulse)	I_{CP}		-200	mA
Collector Dissipation	P_C	1unit	350	mW
Total Power Dissipation	P_T		500	mW
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		-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=0			-0.1	μA
	I_{CEO}	V_{CE}=-40V, I_E=0			-0.5	μA
Emitter Cutoff Current	I_{EBO}	V_{EB}=-5V, I_C=0	-170	-250	-360	μA
DC Current Gain	h_{FE}	V_{CE}=-5V, I_C=-10mA	50			
Gain-Bandwidth Product	f_T	V_{CE}=-10V, I_C=-5mA		200		MHz
Output Capacitance	Cob	V_{CB}=-10V, f=1MHz		5.1		pF

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

Continued on next page.

Marking : 3U

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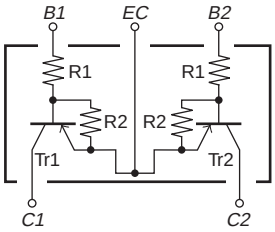
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Emitter Saturation Voltage	V_{CE}(sat)	I_C=-10mA, I_B=-0.5mA		-1.0	-0.3	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	I_C=-10μA, I_E=0	-50			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C=-100μA, R_{BE}=∞	-50			V
Input OFF-State Voltage	V_I(off)	V_{CE}=-5V, I_C=-100μA	-0.8	-1.1	-1.5	V
Input ON-State Voltage	V_I(on)	V_{CE}=-0.2V, I_C=-10mA	-1.0	-2.0	-4.0	V
Input Resistance	R1		7.0	10	13	kΩ
Resistance Ratio	R1 / R2		0.9	1.0	1.1	

Electrical Connection



Application Circuit Example

Input ON-State Voltage : Above 4V

Input OFF-State Voltage : 0.8V or less