

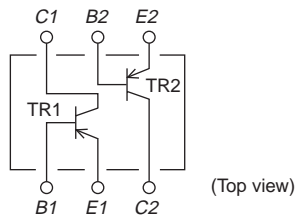
**CPH6516**

## Low-Frequency General-Purpose Amplifier Applications

### Features

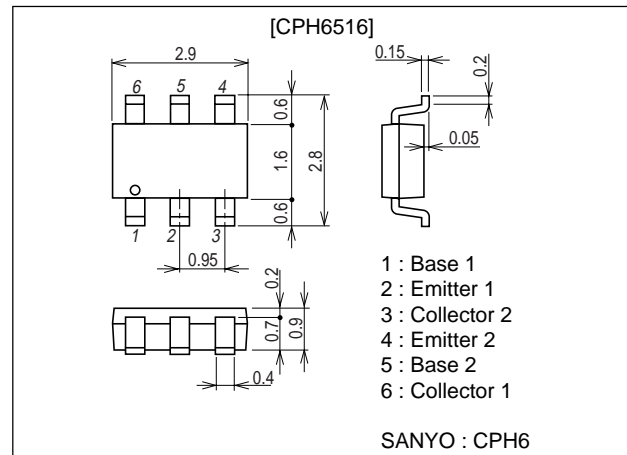
- Composite type with 2 transistors and in the CPH package currently in use, improving the mounting efficiency greatly.
- The CPH6516 is formed with two chips, being equivalent to the 2SA1745, placed in one package.
- Low collector to emitter saturation voltage.
- Excellent in thermal equilibrium and pair capability.

### Electrical Connection



### Package Dimensions

unit : mm  
2212



### Specifications

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

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	$V_{CB0}$		-20	V
Collector-to-Emitter Voltage	$V_{CEO}$		-15	V
Emitter-to-Base Voltage	$V_{EBO}$		-5	V
Collector Current	$I_C$		-500	mA
Collector Current(Pulse)	$I_{CP}$		-1	A
Base Current	$I_B$		-100	mA
Collector Dissipation	$P_C$	1unit	350	mW
Total Dissipation	$P_T$		500	mW
Junction Temperature	$T_J$		150	$^\circ\text{C}$
Storage Temperature	$T_{stg}$		-55 to +150	$^\circ\text{C}$

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

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	$I_{CBO}$	$V_{CB}=-15\text{V}, I_E=0$			-0.1	$\mu\text{A}$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB}=-4\text{V}, I_C=0$			-0.1	$\mu\text{A}$

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

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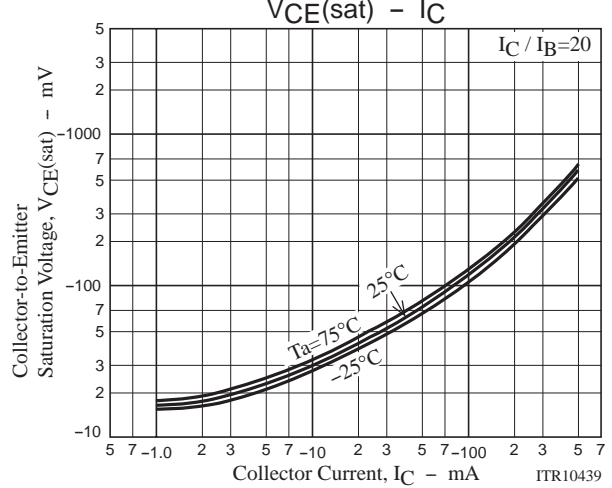
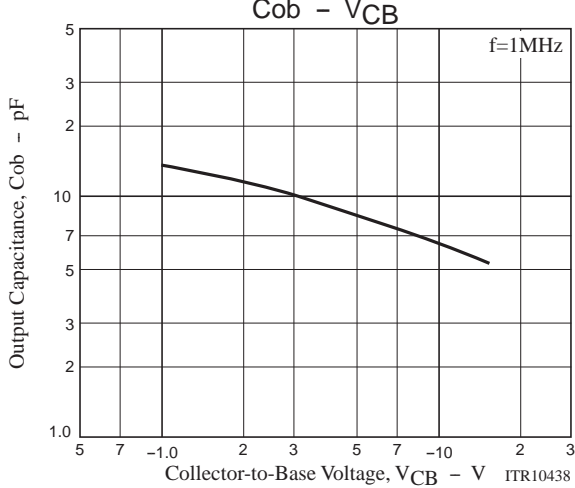
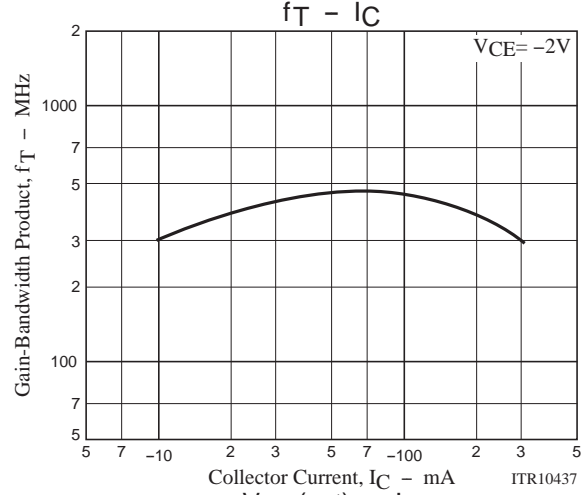
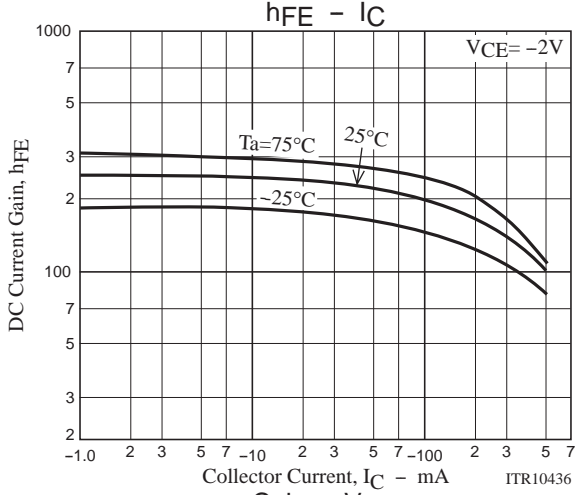
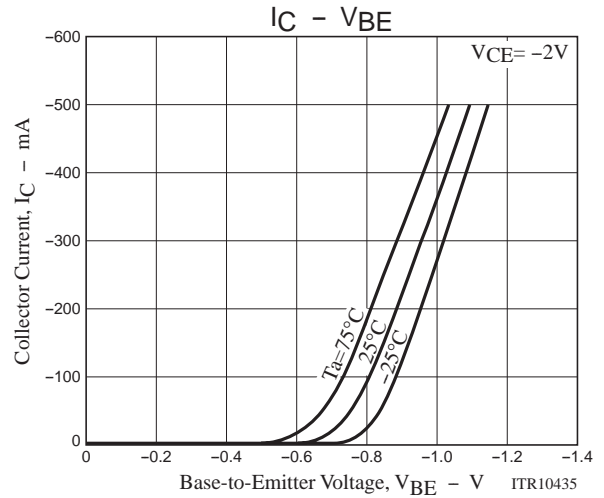
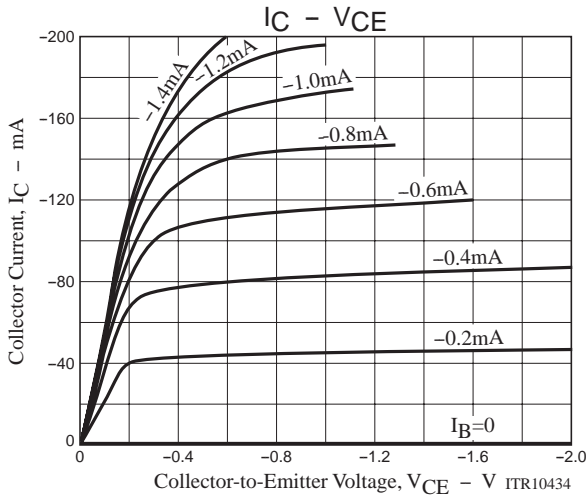
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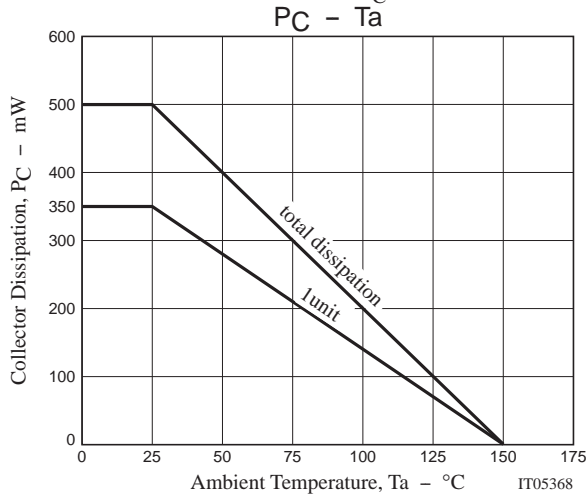
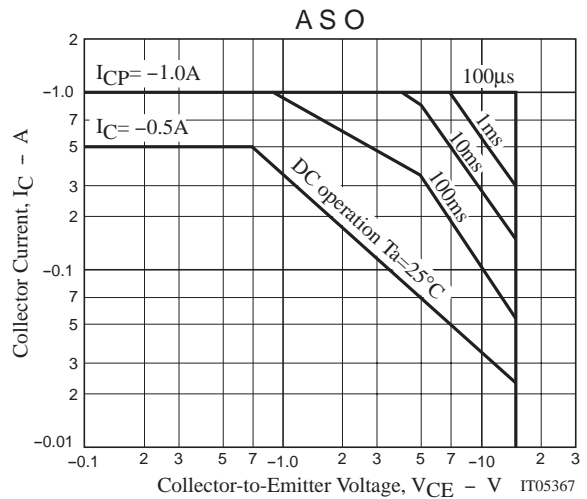
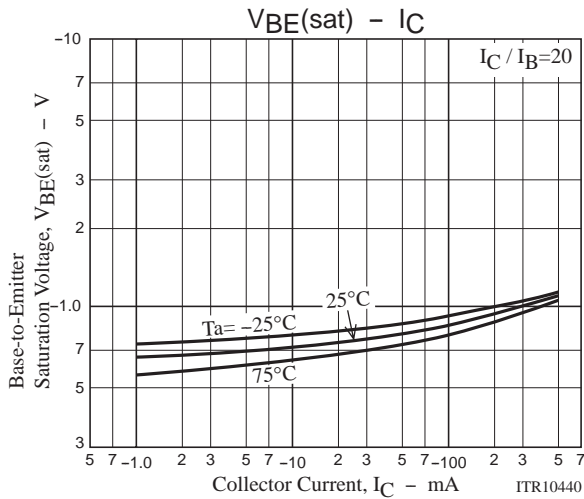
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# CPH6516

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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
DC Current Gain	$h_{FE1}$	$V_{CE}=-2V, I_C=-10mA$	160		560	
	$h_{FE2}$	$V_{CE}=-2V, I_C=-400mA$	70			
DC Current Gain Ratio	$h_{FE}(\text{Small / Large})$	$V_{CE}=-2V, I_C=-10mA$	0.8	0.98		
Gain-Bandwidth Product	$f_T$	$V_{CE}=-2V, I_C=-50mA$		400		MHz
Output Capacitance	$C_{ob}$	$V_{CE}=-10V, f=1MHz$		6.5		pF
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)1}$	$I_C=-5mA, I_B=-0.5mA$		-15	-35	mV
	$V_{CE(sat)2}$	$I_C=-200mA, I_B=-10mA$		-200	-360	mV
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=-200mA, I_B=-10mA$		-0.95	-1.2	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=-10\mu A, I_E=0$	-20			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=-1mA, R_{BE}=\infty$	-15			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=-10\mu A, I_C=0$	-5			V





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