



FP215

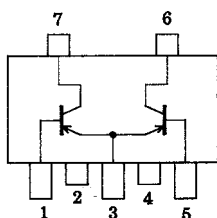
PNP Epitaxial Planar Silicon Composite Transistors

High-Frequency Amp, Differential Amp Applications

Features

- Composite type with 2 transistors contained in the PCP package currently in use, improving the mounting efficiency greatly.
- The FP215 is formed with two chips, being equivalent to the 2SA1724, placed in one package.
- Excellent in thermal equilibrium and pair capability.

Electrical Connection

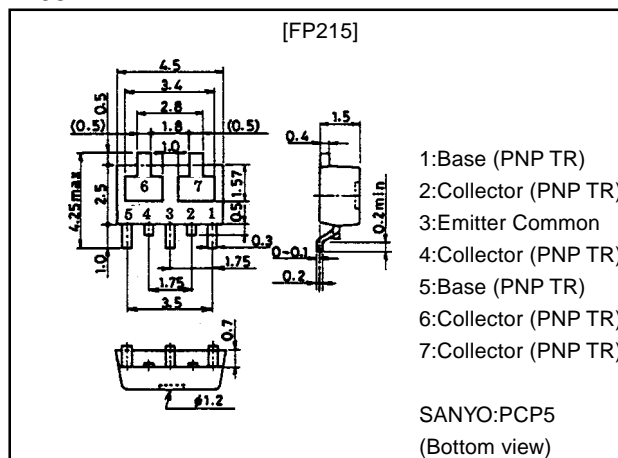


- 1:Base (PNP TR)
2:Collector (PNP TR)
3:Emitter Common
4:Collector (PNP TR)
5:Base (PNP TR)
6:Collector (PNP TR)
7:Collector (PNP TR)
(Top view)

Package Dimensions

unit:mm

2108A



Specifications

Absolute Maximum Ratings at Ta = 25°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	Mounted on ceramic board (250mm ² ×0.8mm) 1 unit	0.75	W
Total Dissipation	P_T	Mounted on ceramic board (250mm ² ×0.8mm)	1.0	W
Junction Temperature	T_J		150	°C
Storage Temperature	T_{stg}		−55 to +150	°C

Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditons	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	$V_{CB}=-20V, I_E=0$			-0.1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=-2V, I_C=0$			-1.0	μA
DC Current Gain	h_{FE1}	$V_{CE}=-5V, I_C=-50mA$	15		100	
	h_{FE2}	$V_{CE}=-5V, I_C=-3000mA$	5			
DC Current Gain Ratio	h_{FE1} (small-large)	$V_{CE}=-5V, I_C=-50mA$	0.6	0.93		
Base-to-Emitter Voltage Difference	V_{BE} (large-small)	$V_{CE}=-5V, I_C=-100mA$		3.0	25	mV
Gain-Bandwidth Product	f_T	$V_{CE}=-5V, I_C=-50mA$		1.5		GHz
Output Capacitance	C_{ob}	$V_{CB}=-10V, f=1MHz$		4.9		pF
Reverse Transfer Capacitance	C_{re}	$V_{CB}=-10V, f=1MHz$		4.4		pF
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C=-100mA, I_B=-10mA$		-0.4	-1.0	V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C=-100mA, I_B=-10mA$		-0.9	-1.2	V

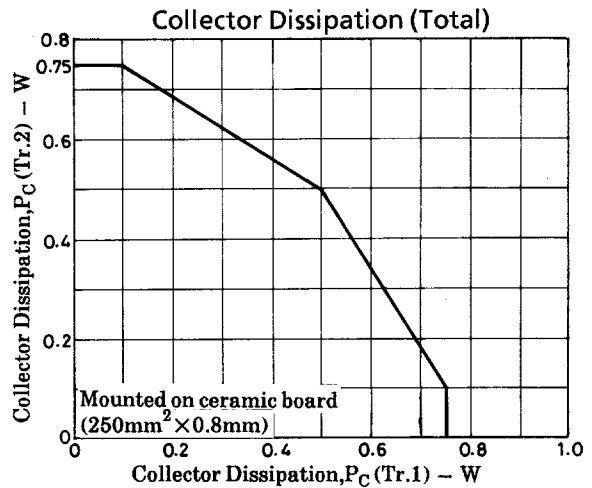
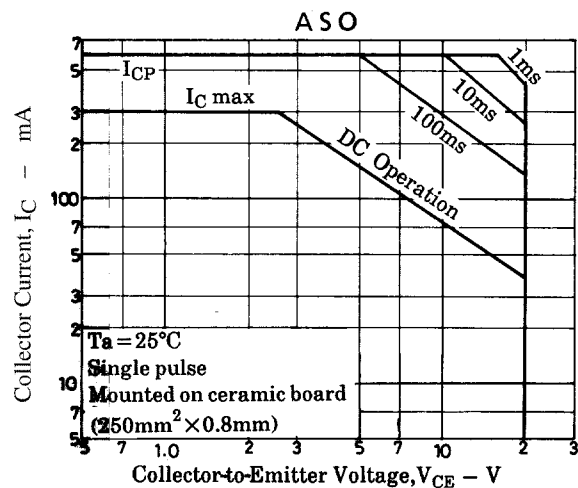
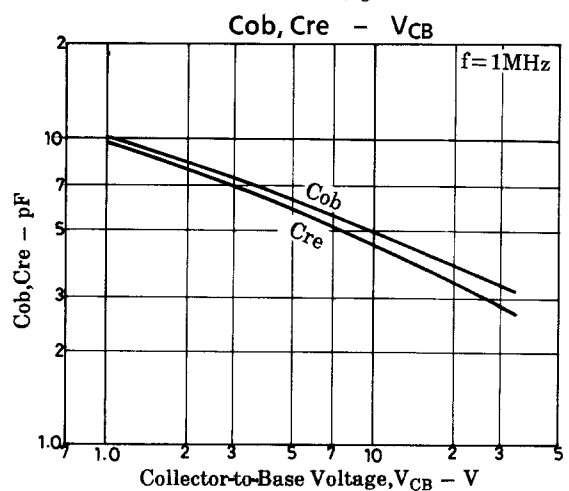
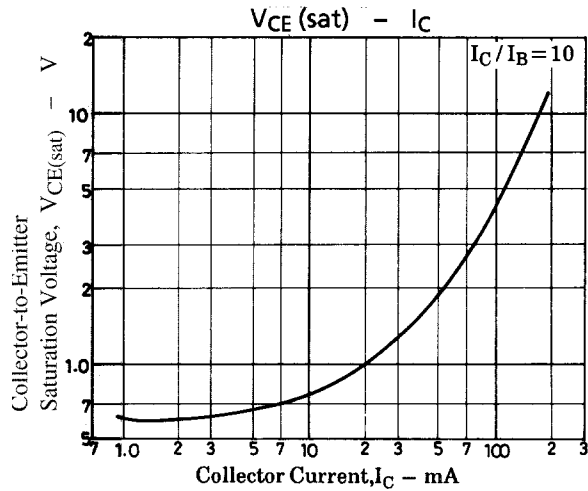
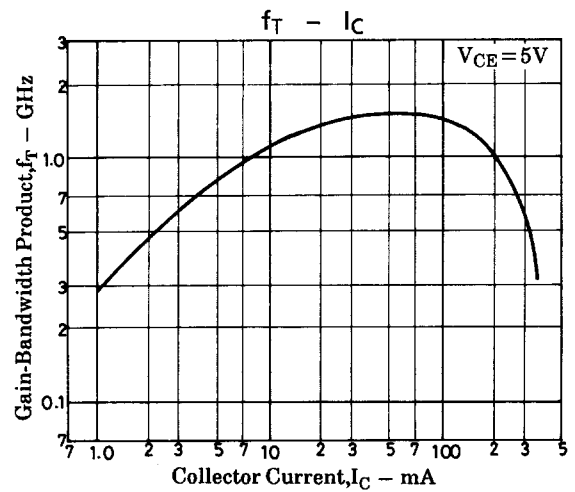
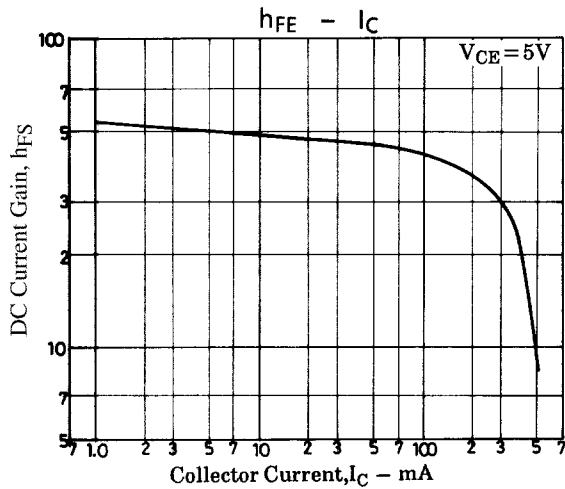
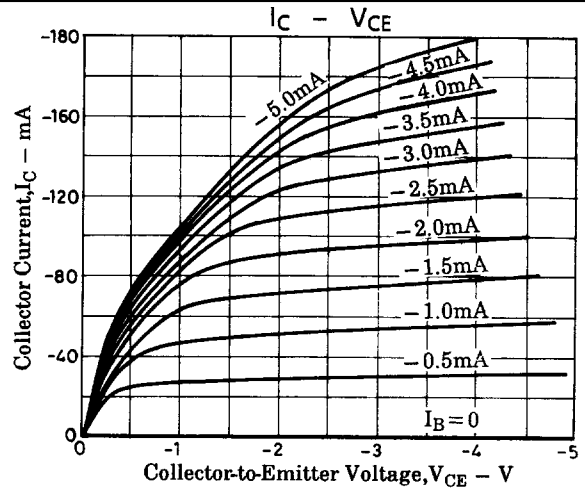
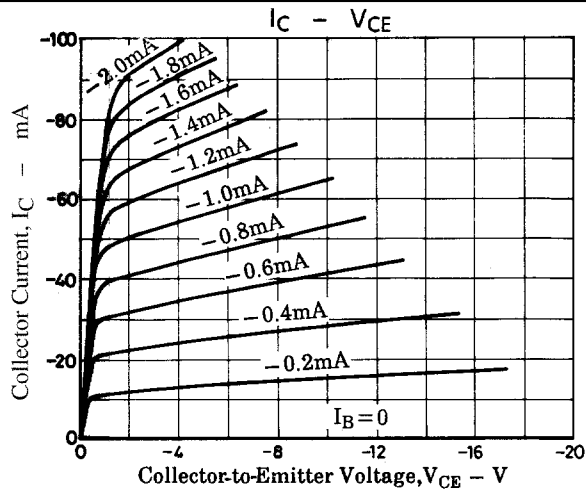
Note: The specifications shown above are for individual transistor.

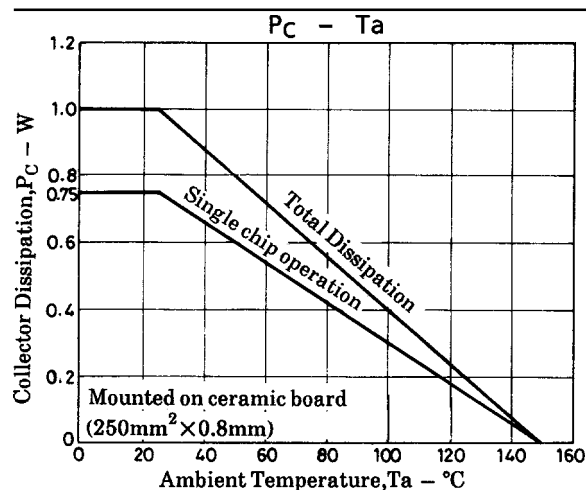
However, the DC Current Gain Ratio and Base-to-Emitter Voltage Difference are for the paired transistors.

Marking:215

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