Ordering number: EN4698



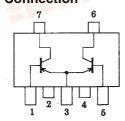
**FP215** 

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**

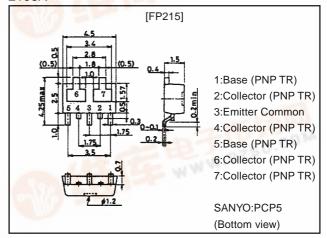


1:Base (PNP TR)
2:Collector (PNP TR)
3:Emitter Common
4:Collector (PNP TR)
5:Base (PNP TR)
6:Collector (PNP TR)
7:Collector (PNP TR)
(Top view)

# **Package Dimensions**

unit:mm

2108A



# **Specifications**

#### Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V <sub>CBO</sub>		-30	V
Collector-to-Emitter Voltage	VCEO	(10)	-20	V
Emitter-to-Base Voltage	V <sub>EBO</sub>		-3	V
Collector Current	I <sub>C</sub>	A COLUMN WAR	-300	mA
Collector Current (Pulse)	I <sub>CP</sub>	Agreed of the last of	-600	mA
Collector Dissipation	PC	Mounted on ceramic board (250mm²×0.8mm) 1 unit	0.75	W
Total Dissipation	PT	Mounted on ceramic board (250mm <sup>2</sup> ×0.8mm)	1.0	W
Junction Temperature	Tj	COM	150	°C
Storage Temperature	Tstg		-55 to +150	°C

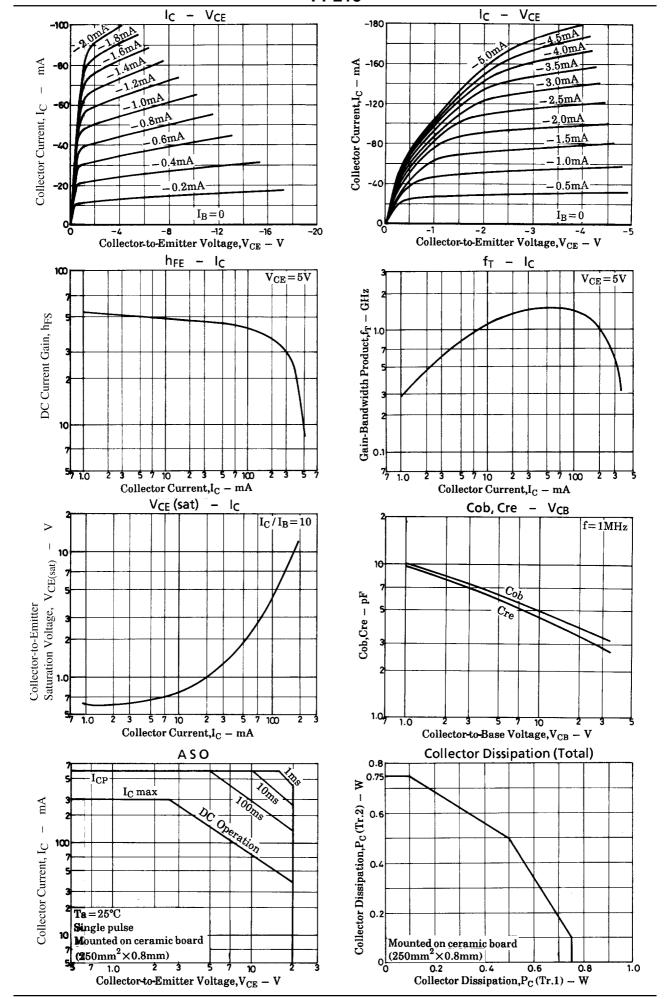
# Electrical Characteristics at Ta=25°C

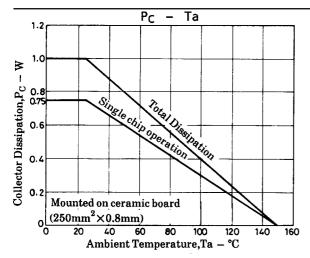
Parameter	Cymphol	Conditons		Ratings		
Parameter	Symbol		min	typ	max	Unit
Collector Cutoff Current	I <sub>CBO</sub>	V <sub>CB</sub> =-20V, I <sub>E</sub> =0			-0.1	μΑ
Emitter Cutoff Current	I <sub>EBO</sub>	V <sub>EB</sub> =-2V, I <sub>C</sub> =0	128		-1.0	μA
DC Current Gain	h <sub>FE</sub> 1	V <sub>CE</sub> =-5V, I <sub>C</sub> =-50mA	15	M.D.	100	
	h <sub>FE</sub> 2	V <sub>CE</sub> =-5V, I <sub>C</sub> =-3000mA	5			
DC Current Gain Ratio	h <sub>FE</sub> 1 (small-large)	V <sub>CE</sub> =-5V, I <sub>C</sub> =-50mA	0.6	0.93		
Base-to-Emitter Voltage Difference	V <sub>BE</sub> (large-small)	V <sub>CE</sub> =-5V, I <sub>C</sub> =-100mA		3.0	25	mV
Gain-Bandwidth Product	fT	V <sub>CE</sub> =-5V, I <sub>C</sub> =-50mA		1.5		GHz
Output Capacitance	Cob	V <sub>CB</sub> =-10V, f=1MHz		4.9		pF
Reverse Transfer Capacitance	Cre	V <sub>CB</sub> =-10V, f=1MHz		4.4		pF
C-E Saturation Voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =-100mA, I <sub>B</sub> =-10mA		-0.4	-1.0	V
B-E Saturation Voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> =-100mA, I <sub>B</sub> =-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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