



FP201

NPN Epitaxial Planar Silicon Composite Transistors High-Frequency Amp, Differential Amp Applications

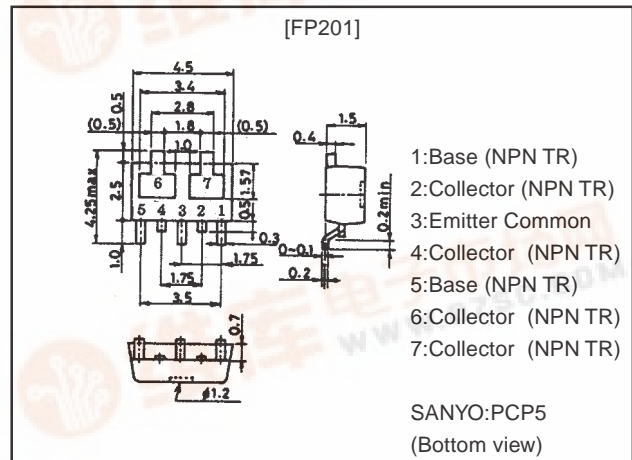
Features

- Composite type with 2 transistors contained in the PCP package currently in use, improving the mounting efficiency greatly.
- The FP201 is formed with two chips, being equivalent to the 2SC4504, placed in one package.
- Excellent in thermal equilibrium and pair capability.

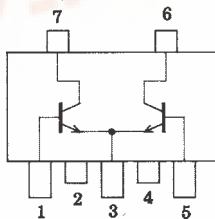
Package Dimensions

unit:mm

2107A



Electrical Connection



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

Specifications

Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V _{CB0}		30	V
Collector-to-Emitter Voltage	V _{CE0}		20	V
Emitter-to-Base Voltage	V _{EB0}		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) 1unit	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

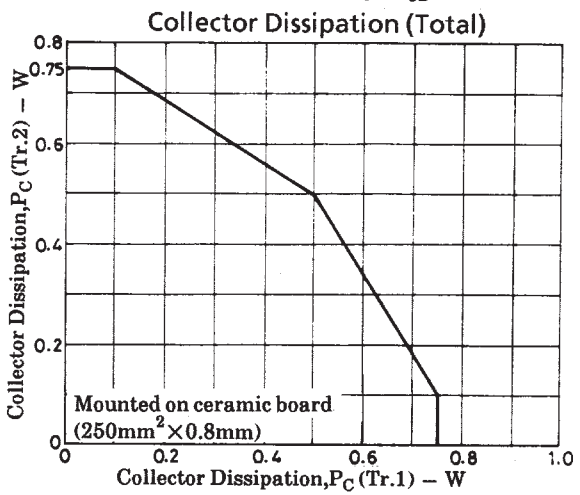
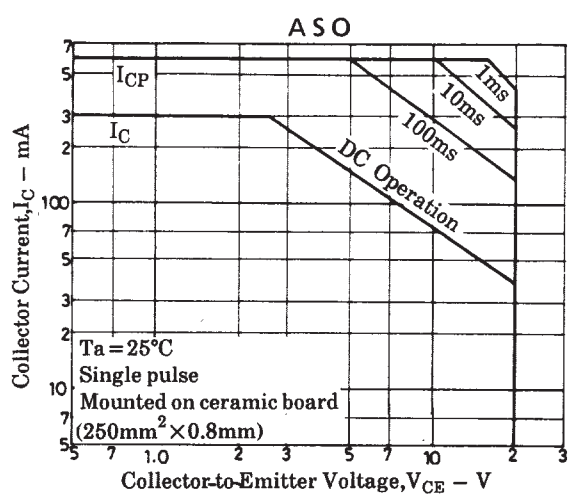
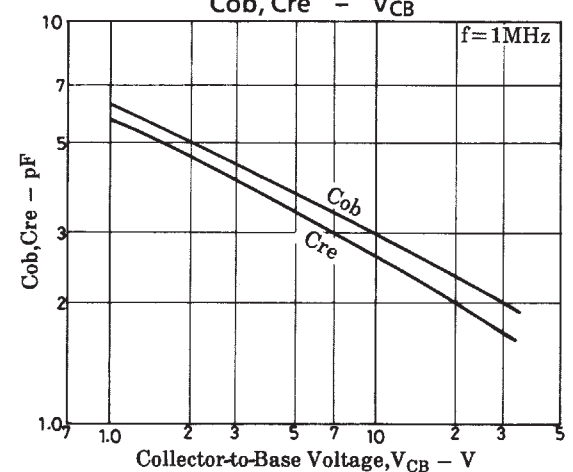
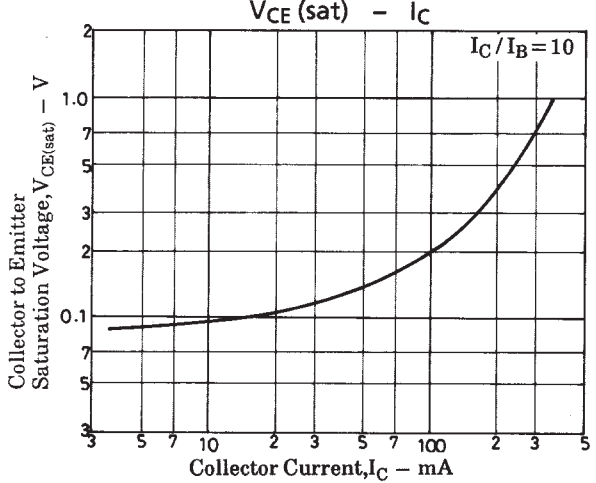
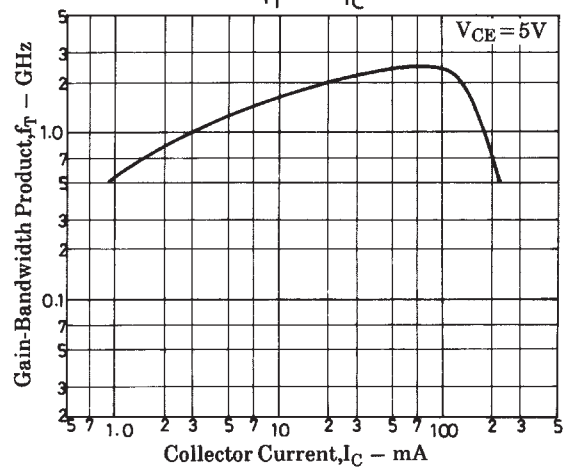
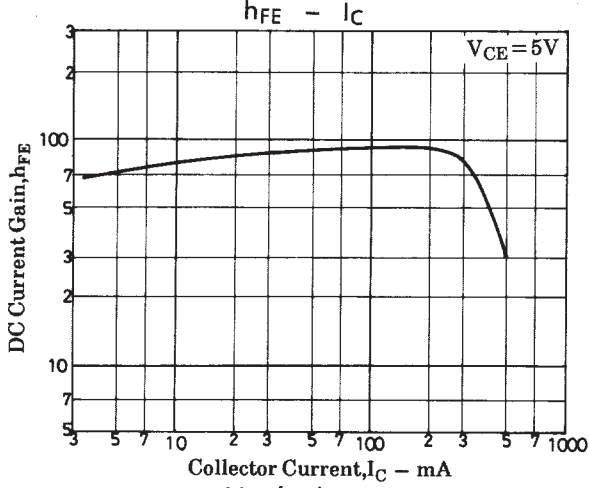
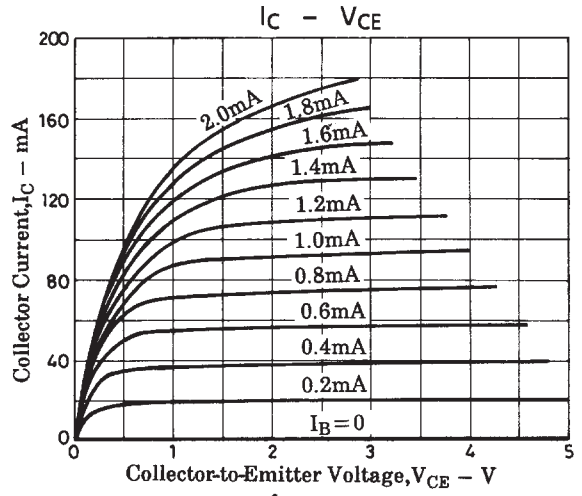
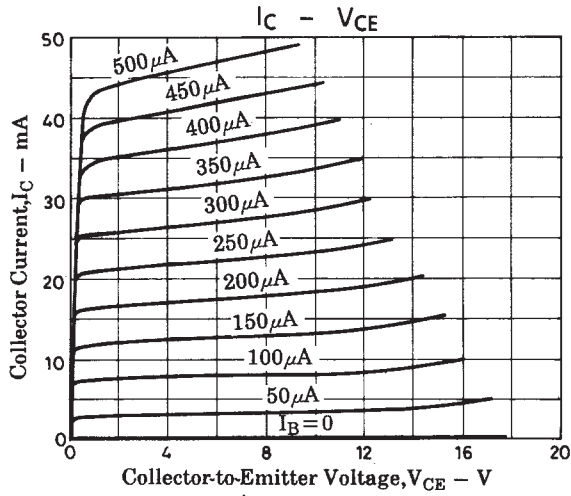
Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I _{CB0}	V _{CB} =20V, I _E =0			1.0	μA
Emitter Cutoff Current	I _{EB0}	V _{EB} =2V, I _C =0			5.0	μA
DC Current Gain	h _{FE1}	V _{CE} =5V, I _C =50mA	60		200	
	h _{FE2}	V _{CE} =5V, I _C =300mA	20			
DC Current Gain Ratio	h _{FE1} (small/large)	V _{CE} =5V, I _C =50mA	0.7	0.95		
Base-to-Emitter Voltage Difference	V _{BE} (large-small)	V _{CE} =5V, I _C =100mA		3.0	15	mV
Gain-Bandwidth Product	f _T	V _{CE} =5V, I _C =50mA		2.2		GHz
Output Capacitance	C _{ob}	V _{CB} =10V, f=1MHz		2.9		pF
Reverse Transfer Capacitance	C _{re}	V _{CB} =10V, f=1MHz		2.6		pF
C-E Saturation Voltage	V _{CE(sat)}	I _C =200mA, I _B =20mA		0.2	0.5	V
B-E Saturation Voltage	V _{BE(sat)}	I _C =200mA, I _B =20mA		0.9	1.2	V

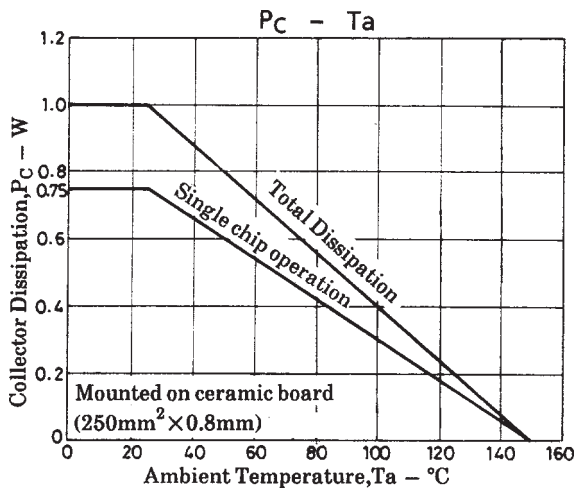
Note:The specifications shown above are for each individual transistor.

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

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