

FC149

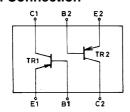
PNP Epitaxial Planar Silicon Composite Transistor

Low-Frequency General-Purpose Amp, Driver Applications

Features

- · Composite type with 2 transistors contained in the CP package currently in use, improving the mounting efficiency greatly.
- The FC149 is formed with two chips, being equivalent to the 2SA1813, placed in one package.
- · Adoption of FBET process.
- · High DC current gain (h_{FE}=500 to 1200).
- · High V_{EBO} ($V_{EBO} \ge 15V$).
- · Excellent in thermal equilibrium and pair capability.

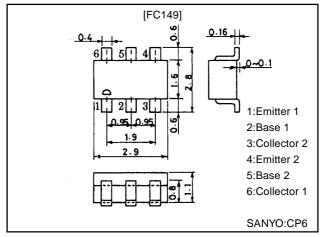
Electrical Connection



Package Dimensions

unit:mm

2067A



Specifications

Absolute Maximum Ratings at Ta = 25°C

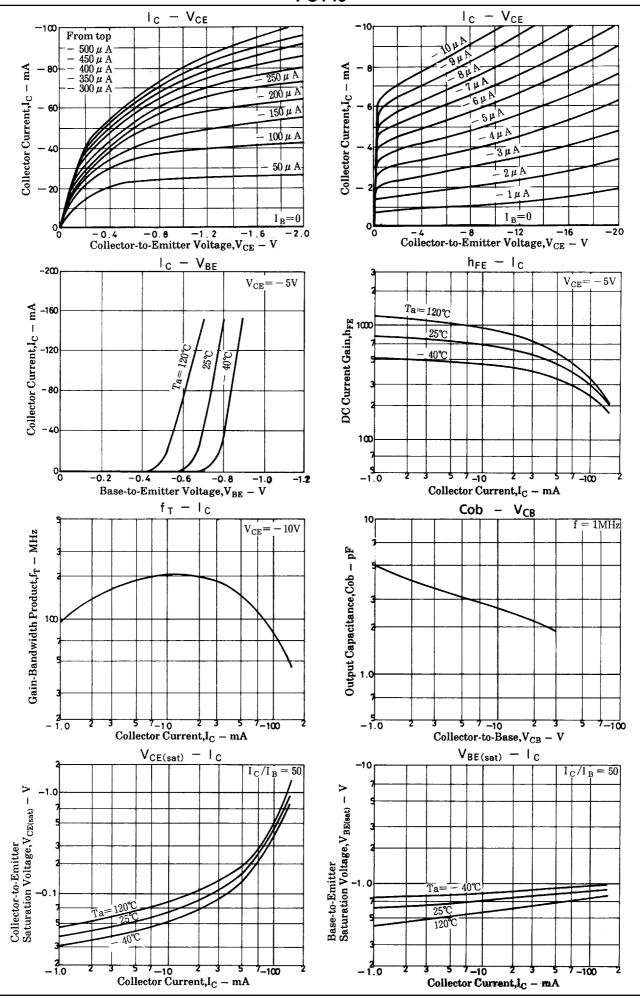
Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V _{CBO}		-30	V
Collector-to-Emitter Voltage	V _{CEO}		-25	V
Emitter-to-Base Voltage	V _{EBO}		-15	V
Collector Current	lС		-150	mA
Collector Current (Pulse)	I _{CP}		-300	mA
Base Current	I _B		-30	mA
Collector Dissipation	PC	1 unit	200	mW
Total Dissipation	PT		300	mW
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		-55 to +150	°C

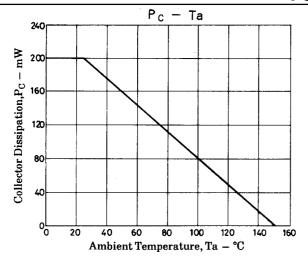
Electrical Characteristics at Ta = 25°C

Parameter	Symbol	Conditons	Ratings			Unit
Farameter			min	typ	max	Oill
Collector Cutoff Current	I _{CBO}	V _{CB} =-20V, I _E =0			-0.1	μΑ
Emitter Cutoff Current	IEBO	V _{EB} =-10V, I _E =0			-0.1	μΑ
DC Current Gain	hFE	V _{CE} =-5V, I _C =-1mA	500	800	1200	
DC Current Gain Ratio	h _{FE} (small/ large)	V _{CE} =-5V, I _C =-1mA	0.7	0.98		
Gain-Bandwidth Product	f _T	V _{CE} =-10V, I _C =10mA		210		MHz
Output Capacitance	Cob	V _{CB} =-10V, f=1MHz		2.6		pF
C-E Saturation Voltage	VCE(sat)	I _C =-50mA, I _B =-1mA		-0.15	-0.3	V
B-E Saturation Voltage	V _{BE(sat)}	I _C =-50mA, I _B =-1mA		-0.78	-1.1	V
C-B Breakdown Voltage	V _(BR) CBO	I _C =-10μA, I _E =0	-30			V
C-E Breakdown Voltage	V(BR)CEO	I _C =-1mA, R _{BE} =∞	-25			V
E-B Breakdown Voltage	V(BR)EBO	I _E =-10μΑ, I _C =0	-15			V

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

Marking:149





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