

SANYO**FC117**

PNP Epitaxial Planar Silicon Composite Transistor

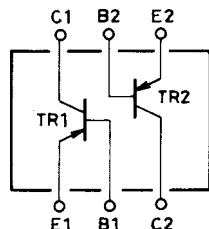
Low-Frequency

General-Purpose Amp Applications

Features

- Composite type with 2 transistors contained in the CP package currently in use, improving the mounting efficiency greatly.
- The FC117 is formed with two chips, being equivalent to the 2SA1753, placed in one package.
- Low collector to emitter saturation voltage.
- Excellent in thermal equilibrium and pair capability.

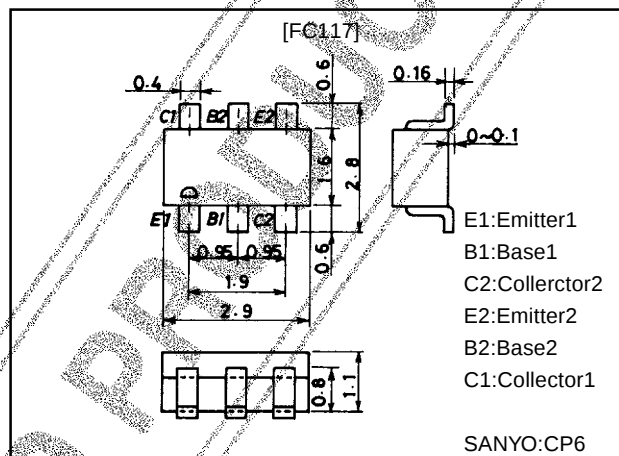
Electrical Connection



Package Dimensions

unit:mm

2067



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	1 unit	200	mW
Total Power Dissipation	P_T		300	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	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = -4\text{V}, I_C = 0$			-0.1	μA
DC Current Gain	$h_{FE(1)}$	$V_{CE} = -2\text{V}, I_C = -10\text{mA}$	160		560	
	$h_{FE(2)}$	$V_{CE} = -2\text{V}, I_C = -400\text{mA}$	70			
DC Current Gain Ratio	$h_{FE(\text{small/large})}$	$V_{CE} = -2\text{V}, I_C = -10\text{mA}$	0.8	0.98		
Gain-Bandwidth Product	f_T	$V_{CE} = -2\text{V}, I_C = -50\text{mA}$		400		MHz
Output Capacitance	C_{ob}	$V_{CE} = -10\text{V}, f = 1\text{MHz}$		6.5		pF
C-E Saturation Voltage	$V_{CE(\text{sat})}^1$	$I_C = -5\text{mA}, I_B = -0.5\text{mA}$	-15		-35	mV
	$V_{CE(\text{sat})}^2$	$I_C = -200\text{mA}, I_B = -10\text{mA}$	-200		-360	mV
B-E Saturation Voltage	$V_{BE(\text{sat})}$	$I_C = -200\text{mA}, I_B = -10\text{mA}$	-0.95		-1.2	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C = -10\mu\text{A}, I_E = 0$	-20			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C = -1\text{mA}, R_{BE} = \infty$	-15			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E = -10\mu\text{A}, I_C = 0$	-5			V

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

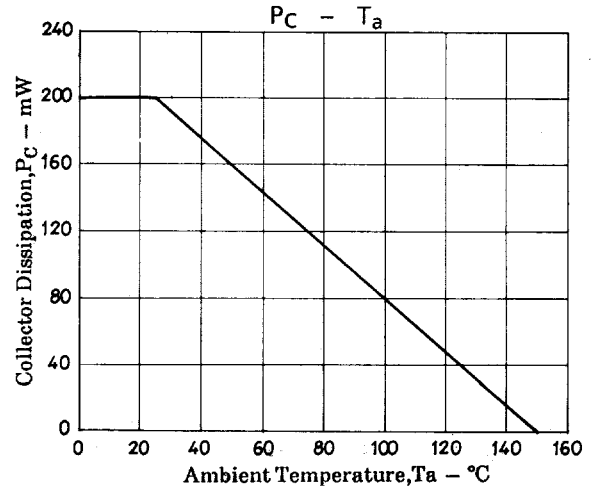
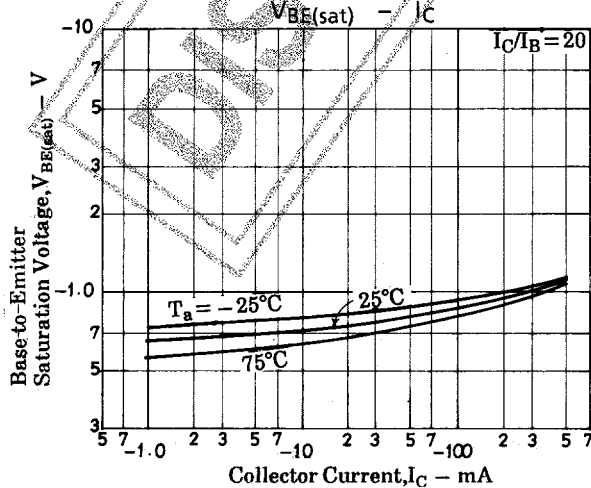
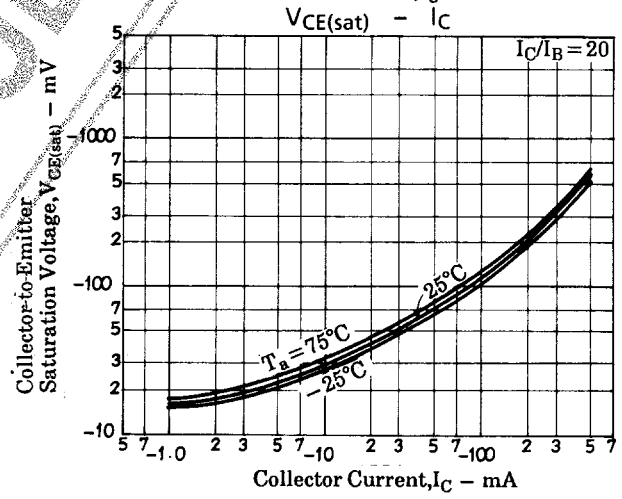
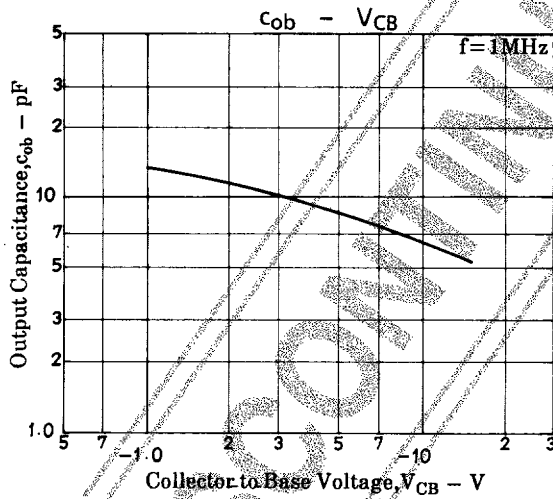
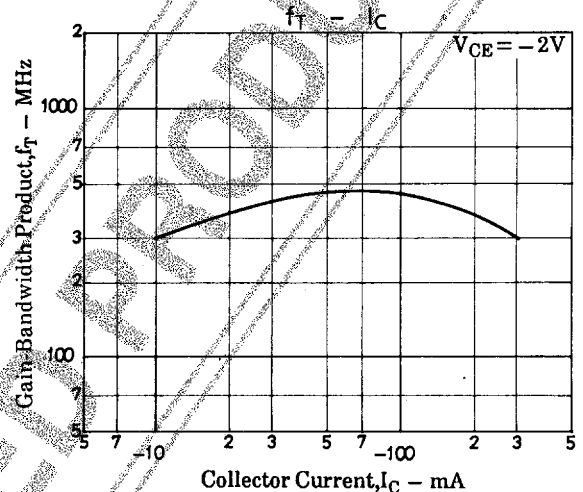
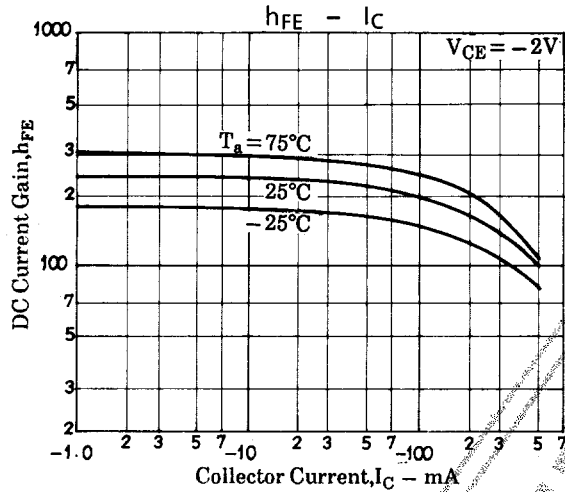
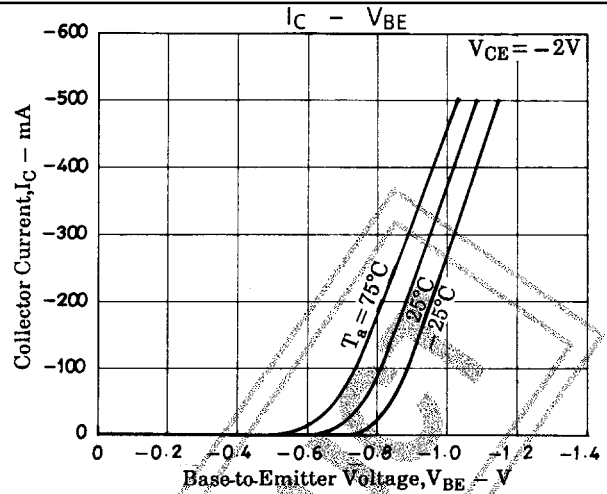
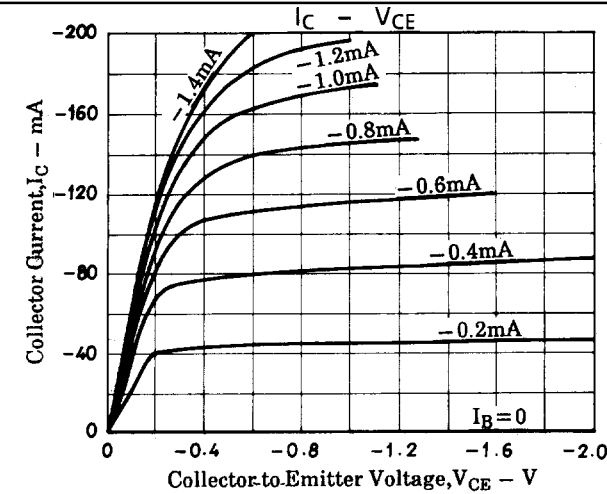
Marking:117

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