

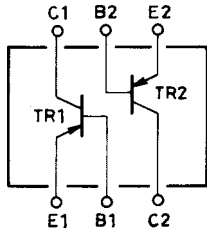
**FC117**

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.

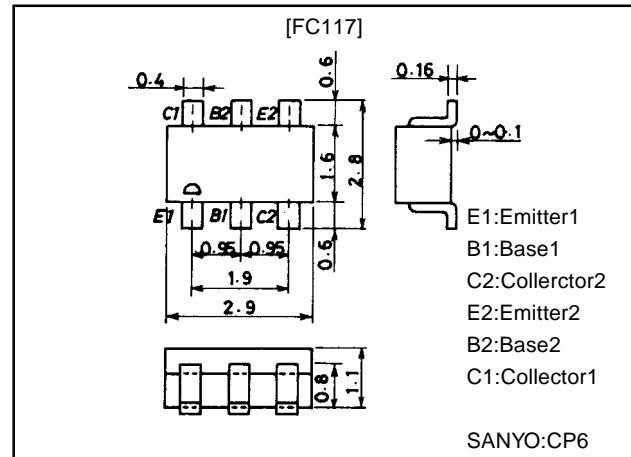
Electrical Connection



Package Dimensions

unit:mm

2067



Specifications

Absolute Maximum Ratings at Ta = 25°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	°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_{CBO}	$V_{CB}=-15V, I_E=0$			-0.1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=-4V, I_C=0$			-0.1	μA
DC Current Gain	$h_{FE}(1)$	$V_{CE}=-2V, I_C=-10mA$	160		560	
	$h_{FE}(2)$	$V_{CE}=-2V, I_C=-400mA$	70			
DC Current Gain Ratio	$h_{FE}(\text{small/large})$	$V_{CE}=-2V, I_C=-10mA$	0.8	0.98		
Gain-Bandwidth Product	f_T	$V_{CE}=-2V, I_C=-50mA$		400		MHz
Output Capacitance	C_{ob}	$V_{CE}=-10V, f=1MHz$		6.5		pF
C-E Saturation Voltage	$V_{CE(sat)1}$	$I_C=-5mA, I_B=-0.5mA$	-15		-35	mV
	$V_{CE(sat)2}$	$I_C=-200mA, I_B=-10mA$	-200		-360	mV
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C=-200mA, I_B=-10mA$	-0.95		-1.2	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C=-10\mu A, I_E=0$	-20			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C=-1mA, R_{BE}=\infty$	-15			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E=-10\mu A, I_C=0$	-5			V

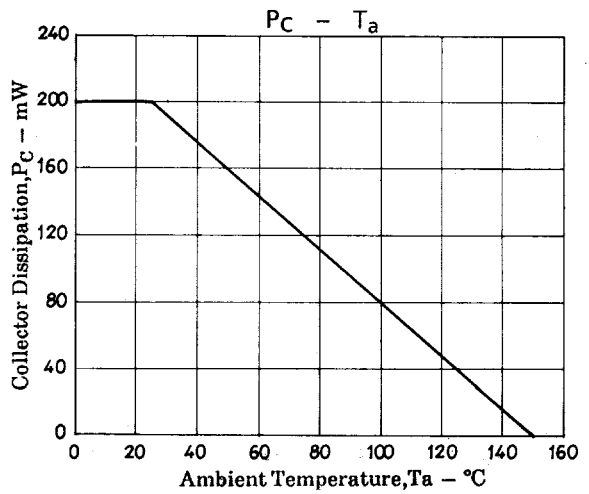
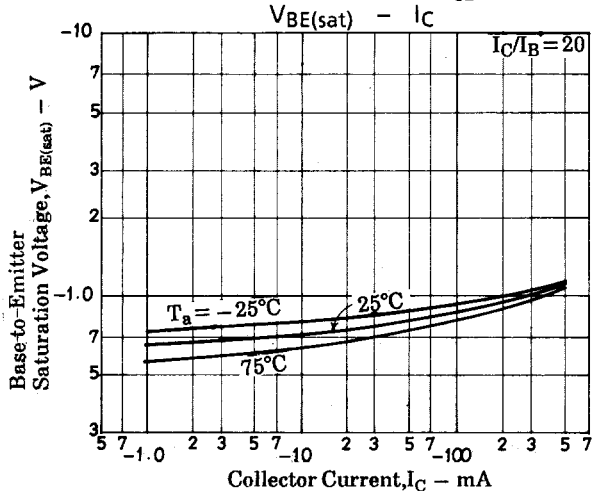
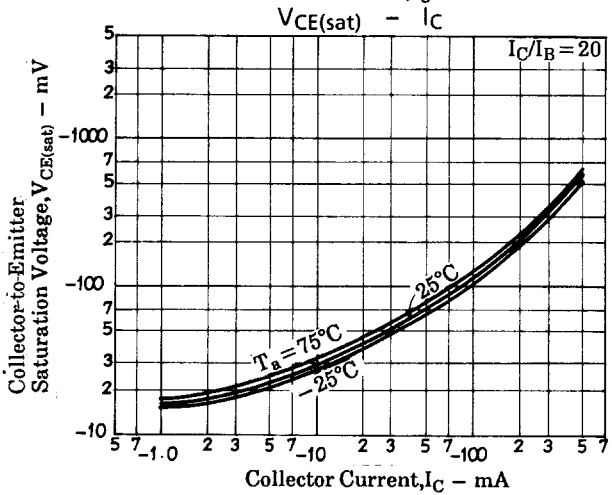
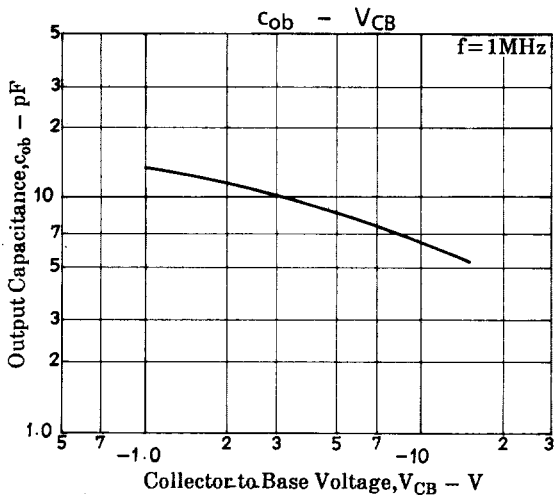
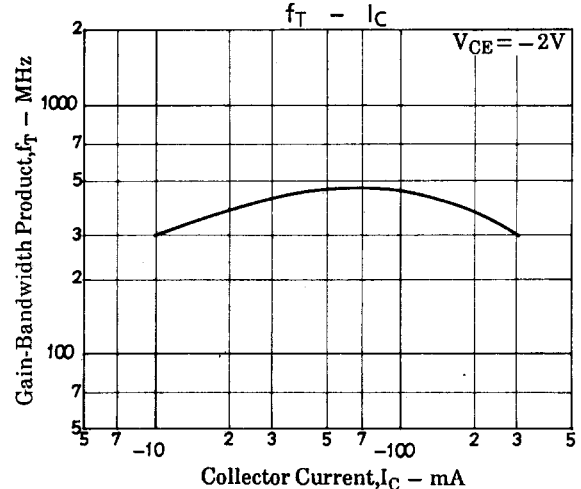
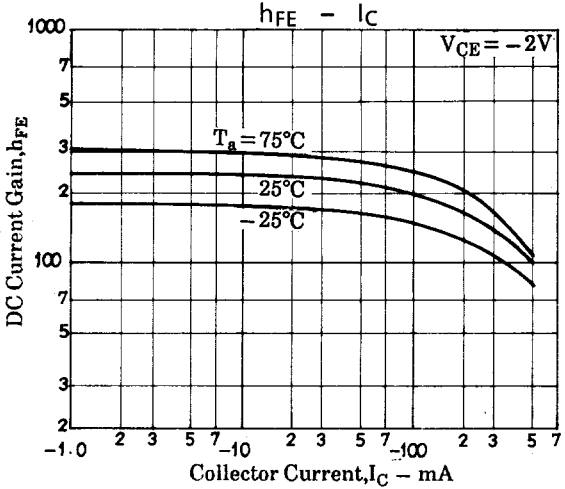
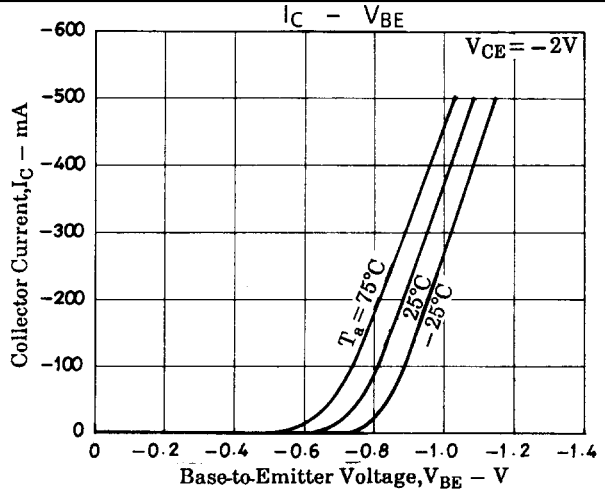
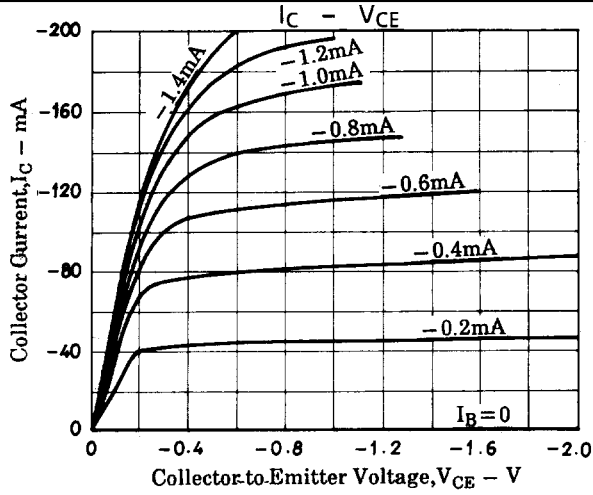
Note: The specifications shown above are for each individual transistor.

Marking:117

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FC117



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