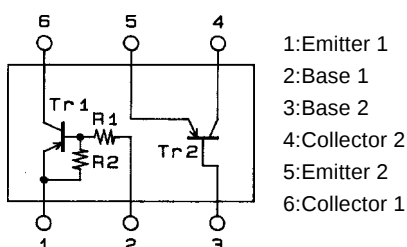


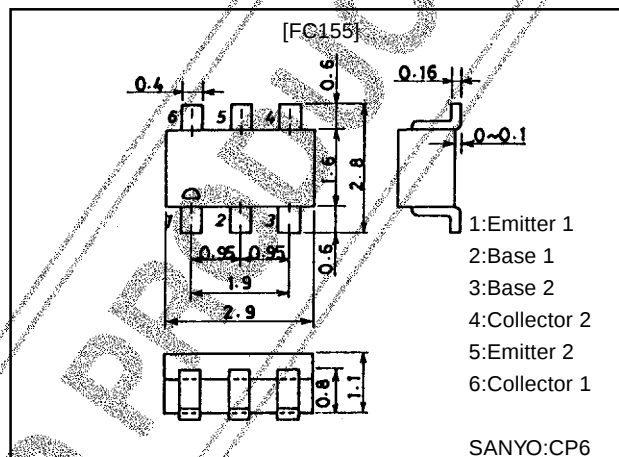
SANYO**FC155**PNP Epitaxial Planar Silicon Transistor (With bias resistances)
PNP Epitaxial Planar Silicon Transistor**Constant-Current Circuit Applications****Features**

- Complex type of 2 devices (transistor with resistances and low saturation transistor) contained in one package, facilitating high-density mounting.

Electrical Connection**Package Dimensions**

unit:mm

2104A

**Specifications****Absolute Maximum Ratings at $T_a = 25^\circ\text{C}$**

Parameter	Symbol	Conditions	Ratings	Unit
[TR1]				
Collector-to-Base Voltage	V_{CB0}		-20	V
Collector-to-Emitter Voltage	V_{CE0}		-15	V
Emitter-to-Base Voltage	V_{EB0}		-5	V
Collector Current	I_C		-500	mA
Collector Current (Pulse)	I_{CP}		-1	A
Base Current	I_B		-5	mA
Collector Dissipation	P_C	1 unit	200	mW
Total Dissipation	P_T		300	mW
Junction Temperature	T_J		150	$^\circ\text{C}$
Storage Temperature	T_{stg}		-55 to +150	$^\circ\text{C}$
[TR2]				
Collector-to-Base Voltage	V_{CB0}		-20	V
Collector-to-Emitter Voltage	V_{CE0}		-15	V
Emitter-to-Base Voltage	V_{EB0}		-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
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Junction Temperature	T_J		150	$^\circ\text{C}$
Storage Temperature	T_{stg}		-55 to +150	$^\circ\text{C}$

SANYO Electric Co.,Ltd. Semiconductor Business Headquarters

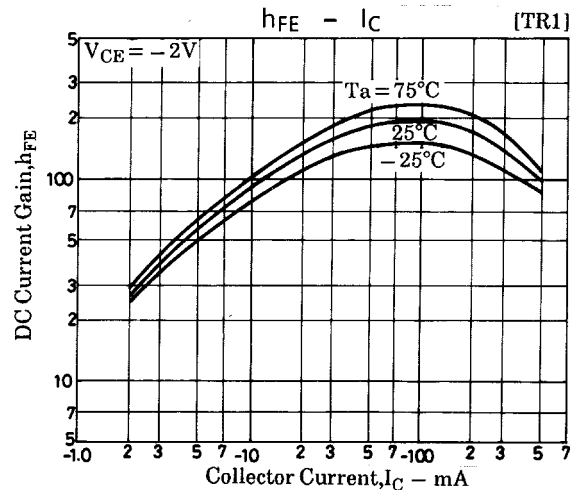
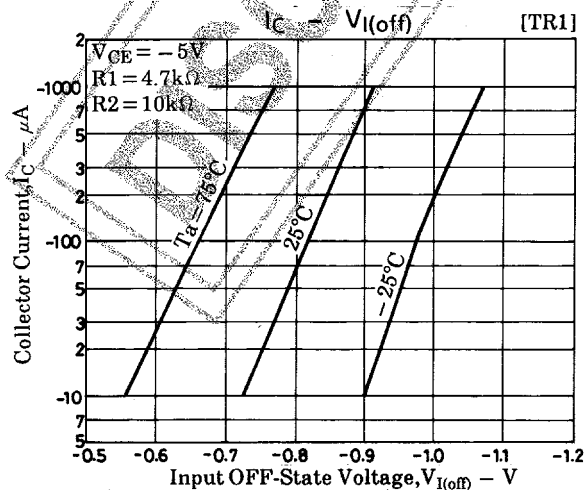
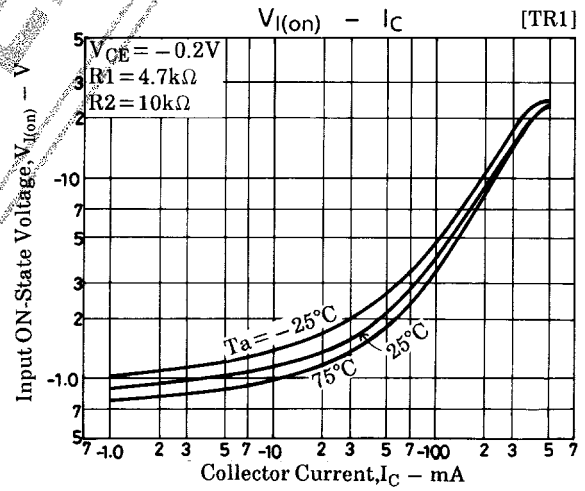
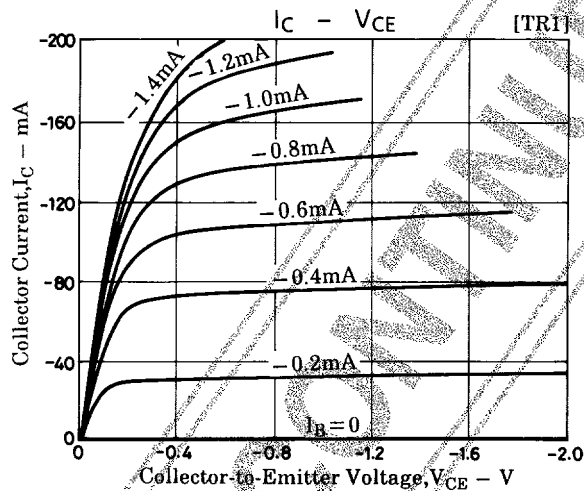
TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN

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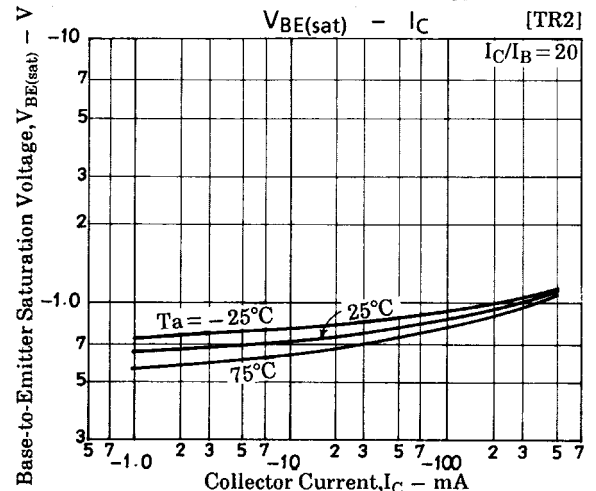
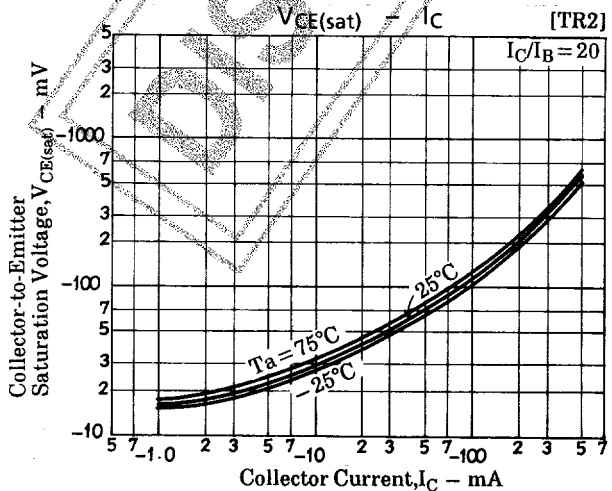
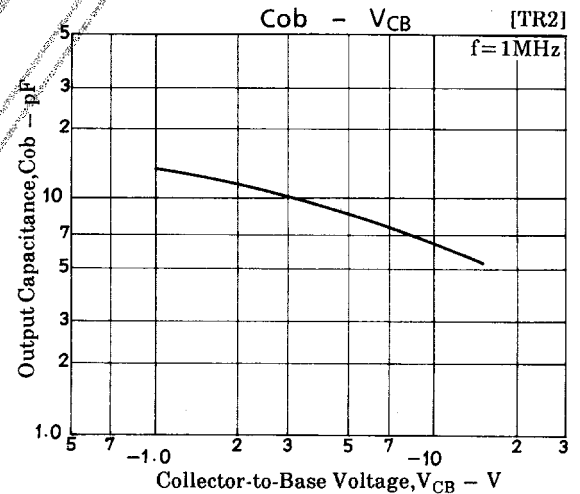
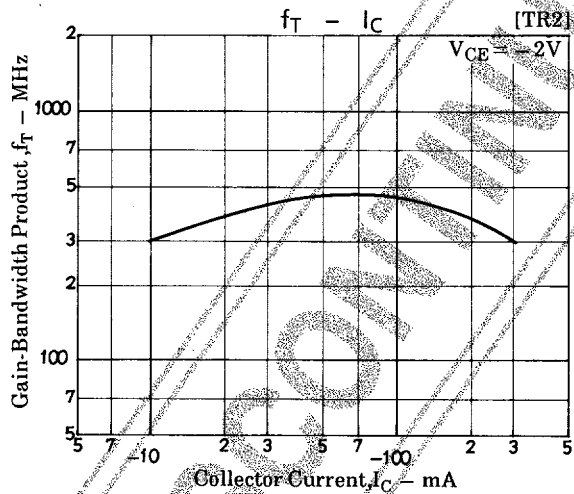
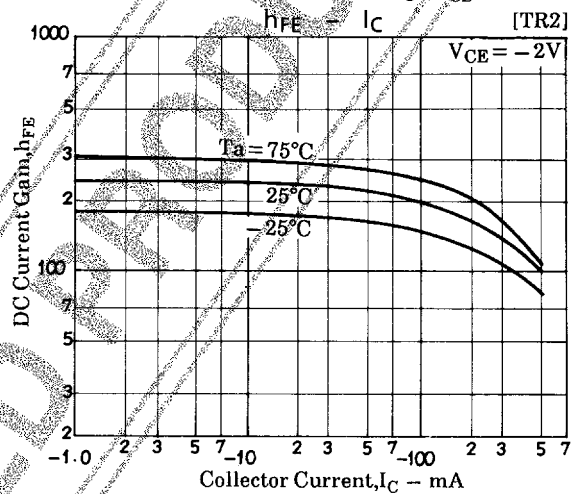
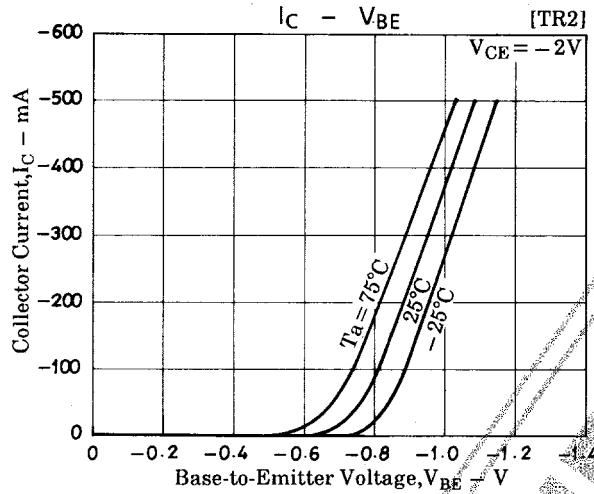
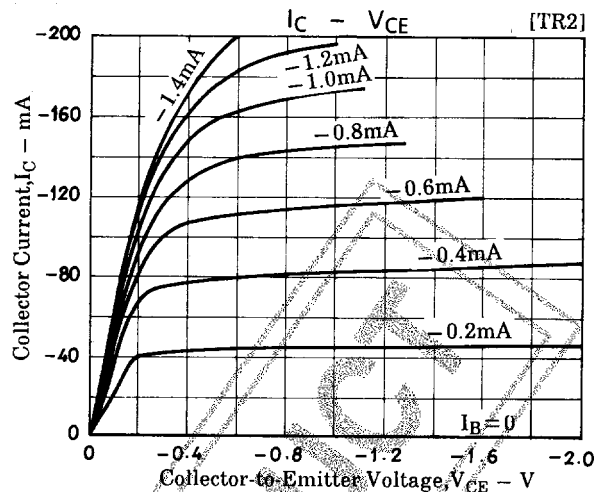
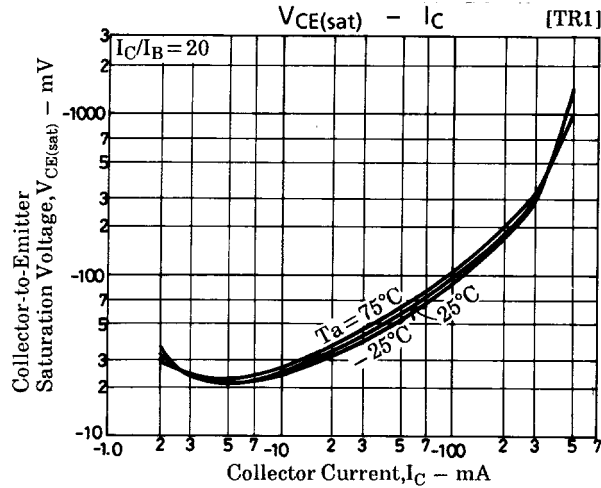
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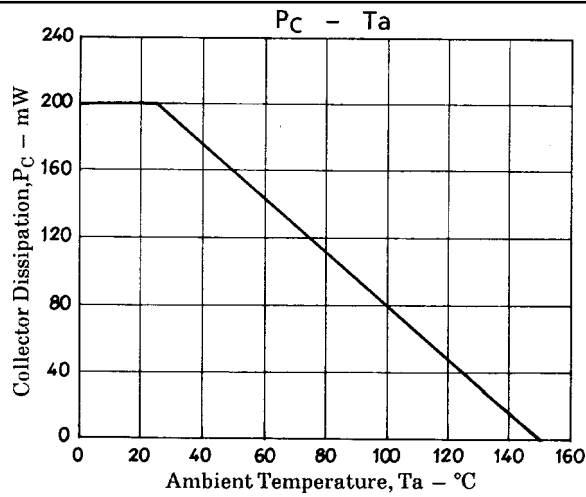
Electrical Characteristics at Ta = 25°C

Parameter	Symbol	Conditons	Ratings			Unit
			min	typ	max	
[TR1]						
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	-210	-270	-390	μA
DC Current Gain	h _{FE}	V _{CE} =-2V, I _C =-100mA	100			
Gain-Bandwidth Product	f _T	V _{CE} =-2V, I _C =-50mA		150		MHz
Output Capacitance	C _{ob}	V _{CE} =-10V, f=1MHz		5		pF
C-E Saturation Voltage	V _{CE(sat)}	I _C =-100mA, I _B =-5mA		-100	-250	mV
C-B Breakdown Voltage	V _{(BR)CBO}	I _C =-10μA, I _E =0	-20			V
C-E Breakdown Voltage	V _{(BR)CEO}	I _C =-1mA, R _{BE} =∞	-15			V
Input-OFF-State Voltage	V _{I(off)}	V _{CE} =-5V, I _C =-100μA	-0.7	-0.80	-0.95	V
Input-ON-State Voltage	V _{I(on)}	V _{CE} =-0.2V, I _C =-10mA	-0.85	-1.2	-1.8	V
Input Resistance	R ₁		3.3	4.7	6.1	V
Resistance Ratio	R ₁ /R ₂			0.47		kΩ
[TR2]						
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			MHz
Gain-Bandwidth Product	f _T	V _{CE} =-2V, I _C =-50mA		400		pF
Output Capacitance	C _{ob}	V _{CE} =-10V, f=1MHz		6.5		mV
C-E Saturation Voltage	V _{CE(sat)}	I _C =-200mA, I _B =-10mA		-200	-360	V
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 =-10μA, I _E =0	-20			V
C-E Breakdown Voltage	V _{(BR)CEO}	I _C =-1mA, R _{BE} =∞	-15			V
E-B Breakdown Voltage	V _{(BR)EBO}	I _C =-10μA, I _C =0	-5			V



FC155





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