

SANYO	No.3195	2SC4400
	NPN Epitaxial Planar Silicon Transistor High-Frequency General-Purpose Amp Applications	

Features

- High power gain
- High cutoff frequency
- Small c_{ob} , c_{re}
- Very small-sized package permitting the 2SC4400-applied sets to be made small and slim

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

			unit
Collector to Base Voltage	V_{CBO}	40	V
Collector to Emitter Voltage	V_{CEO}	18	V
Emitter to Base Voltage	V_{EBO}	3	V
Collector Current	I_C	50	mA
Collector Dissipation	P_C	150	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	- 55 to + 150	$^\circ\text{C}$

Electrical Characteristics at $T_a = 25^\circ\text{C}$

			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = 18\text{V}, I_E = 0$			0.1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 2\text{V}, I_C = 0$			0.1	μA
DC Current Gain	h_{FE}	$V_{CE} = 10\text{V}, I_C = 5\text{mA}$	60*		270*	
Gain-Bandwidth Product	f_T	$V_{CE} = 10\text{V}, I_C = 5\text{mA}$		750		MHz
Output Capacitance	c_{ob}	$V_{CB} = 10\text{V}, f = 1\text{MHz}$		0.7	1.2	pF
Reverse Transfer Capacitance	c_{re}	$V_{CB} = 10\text{V}, f = 1\text{MHz}$		0.45		pF
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = 10\text{mA}, I_B = 1\text{mA}$			0.2	V
B-C Time Constant	$r_{bb}'c_c$	$V_{CE} = 10\text{V}, I_C = 5\text{mA}, f = 31.9\text{MHz}$			23	ps
Power Gain	PG	$V_{CE} = 10\text{V}, I_C = 10\text{mA}, f = 100\text{MHz}$		28		dB

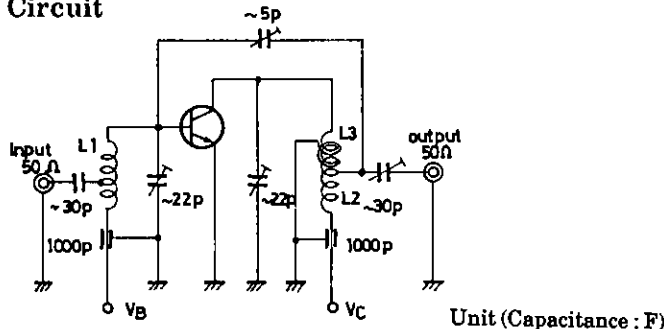
* : The 2SC4400 is classified by 5mA h_{FE} as follows.

60	3	120	90	4	180	135	5	270
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Marking : RT

h_{FE} rank : 3,4,5

PG Test Circuit

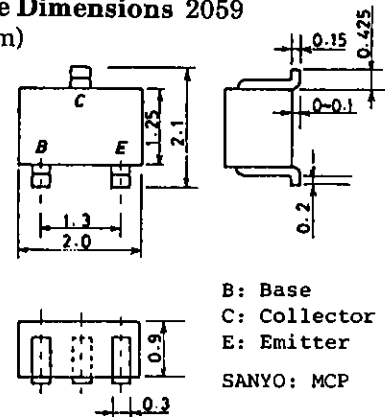


L_1 : 1mm ϕ plated wire, 10mm ϕ 5T, pitch 15mm, tap : 2T from base side

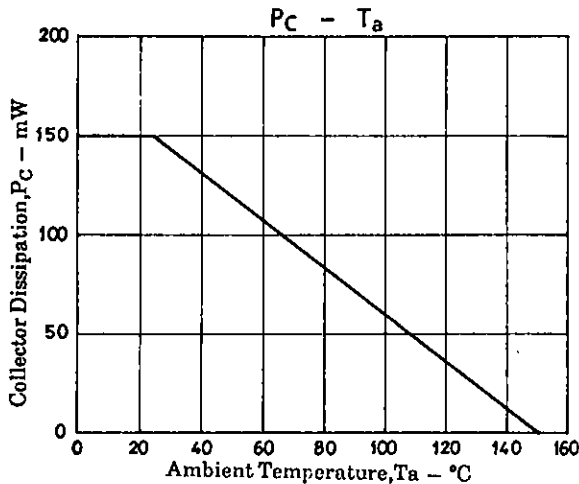
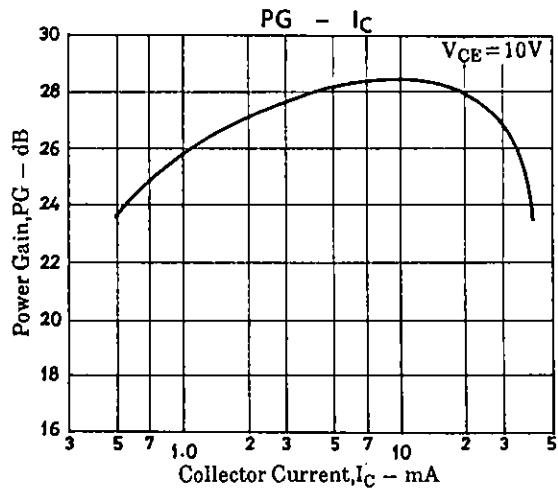
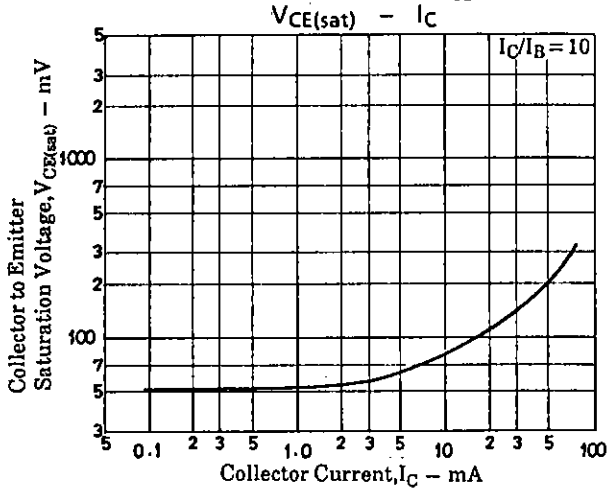
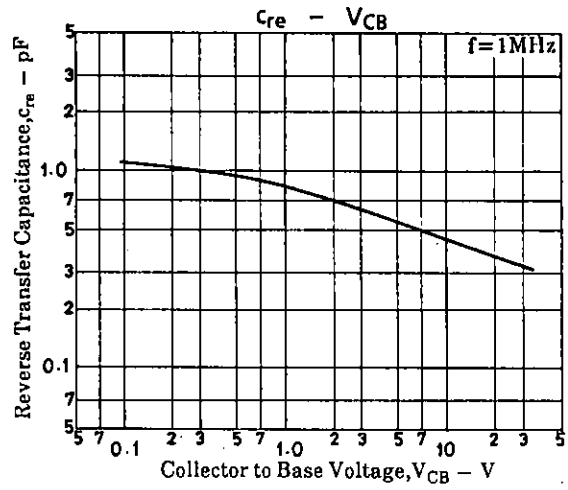
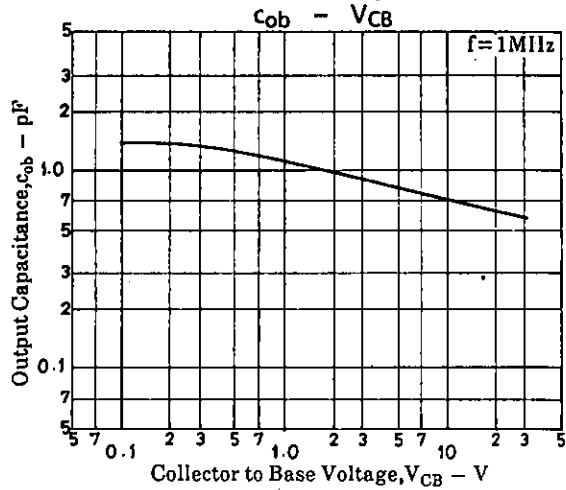
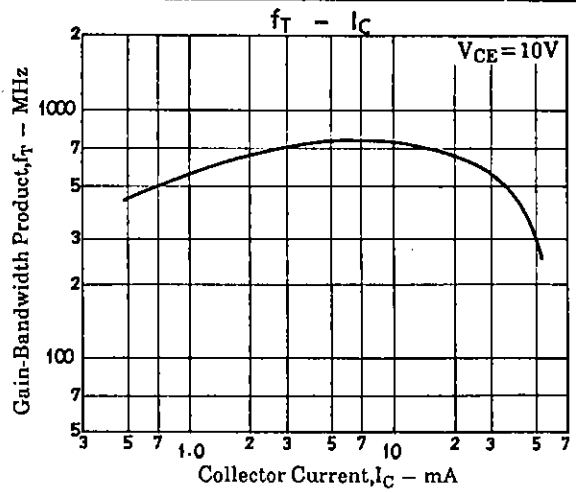
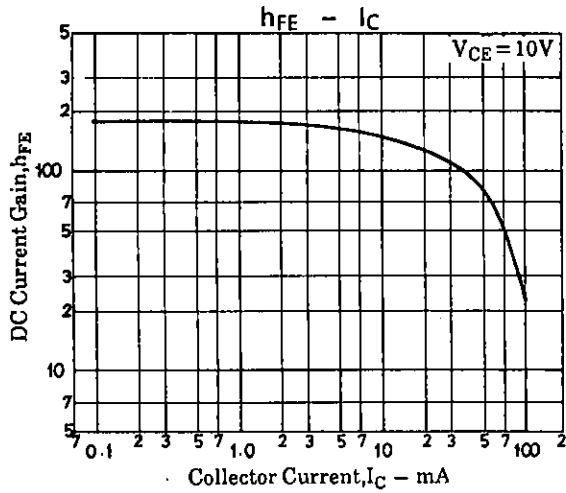
L_2 : 1mm ϕ plated wire, 10mm ϕ 7T, pitch 10mm, tap : 2T from V_C side

L_3 : 1mm ϕ enamel wire, 10mm ϕ 3T, pitch 10mm

Package Dimensions 2059
(unit : mm)



2SC4400



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