

SANYO

No.4625

2SA1815

PNP Epitaxial Planar Silicon Transistor
 FM, RF, MIX, IF Amp, High-Frequency
 General-Purpose Amp Applications

Features

- High power gain : $PG = 25\text{dB typ (}f = 100\text{MHz)}$
- High cutoff frequency : $f_T = 750\text{MHz typ}$
- Low collector-to-emitter saturation voltage.
- Complementary pair with the 2SC4432.

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

			unit
Collector to Base Voltage	V_{CB0}	-15	V
Collector to Emitter Voltage	V_{CE0}	-12	V
Emitter to Base Voltage	V_{EB0}	-3	V
Collector Current	I_C	-50	mA
Collector Dissipation	P_C	250	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

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

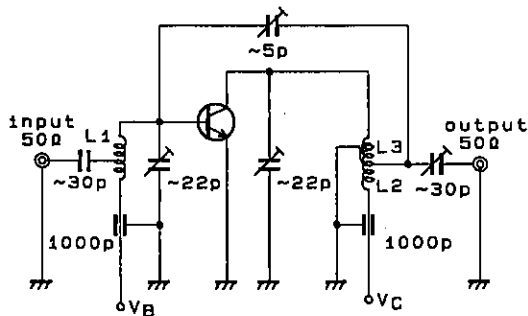
			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = -12\text{V}, I_E = 0$			-0.1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = -2\text{V}, I_C = 0$			-0.1	μA
DC Current Gain	h_{FE}	$V_{CE} = -10\text{V}, I_C = -5\text{mA}$	60*		270*	
Gain-Bandwidth Product	f_T	$V_{CE} = -10\text{V}, I_C = -5\text{mA}$		750		MHz
Output Capacitance	C_{ob}	$V_{CB} = -10\text{V}, f = 1\text{MHz}$		1.2	1.6	pF
Reverse Transfer Capacitance	C_{re}	$V_{CB} = -10\text{V}, f = 1\text{MHz}$		0.9		pF
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = -10\text{mA}, I_B = -1\text{mA}$	-0.1		-0.3	V
Power Gain	PG	$V_{CE} = -10\text{V}, I_C = -10\text{mA}, f = 100\text{MHz}$		25		dB

* The 2SA1815 is classified by 5mA h_{FE} as follows:

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

h_{FE} rank : 3, 4, 5

PG Test Circuit

Unit (Capacitance : F)

A01884

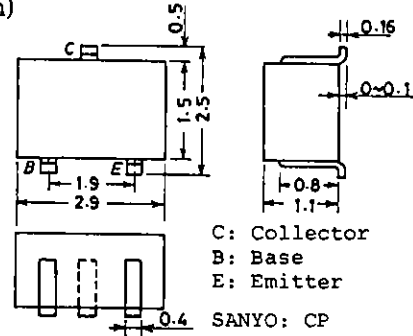
L1 : 1mm ϕ plated wire 10mm ϕ 5T, pitch 15mm,
tap : 2T from base side

L2 : 1mm ϕ plated wire 10mm ϕ 7T, pitch 10mm,
tap : 2T from V_C side

L3 : 1mm ϕ enamel wire 10mm ϕ 3T, pitch 10mm

Package Dimensions 2018A

(unit : mm)



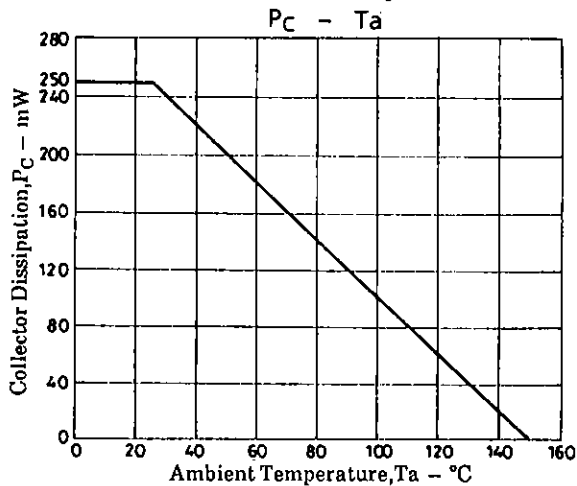
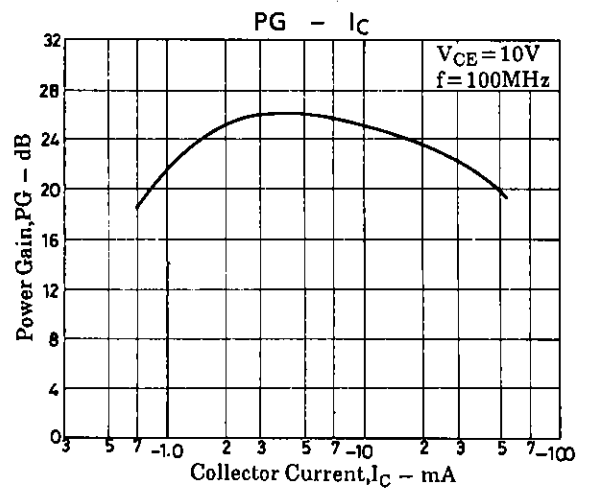
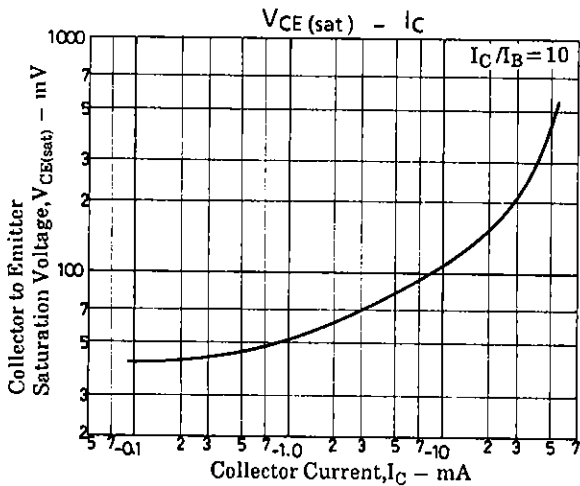
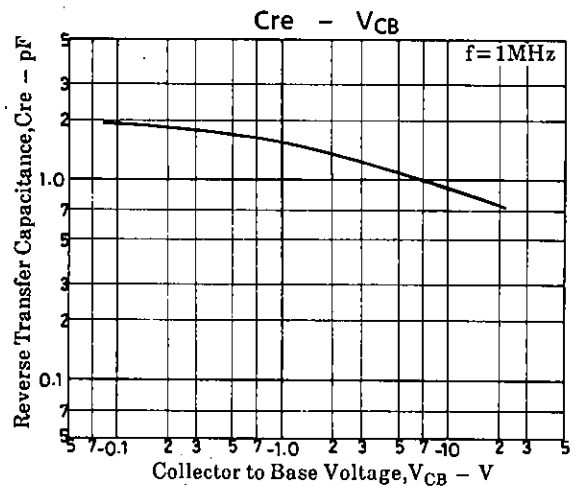
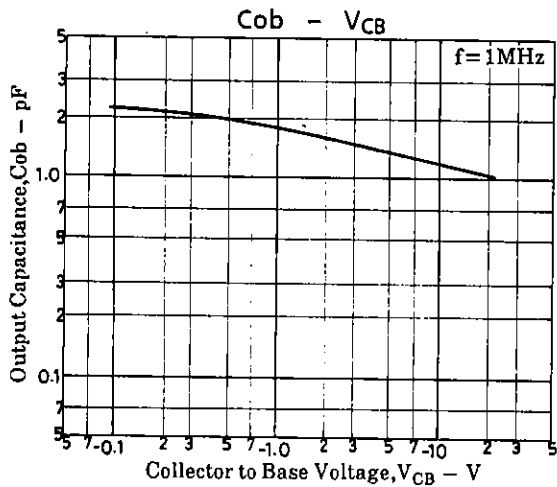
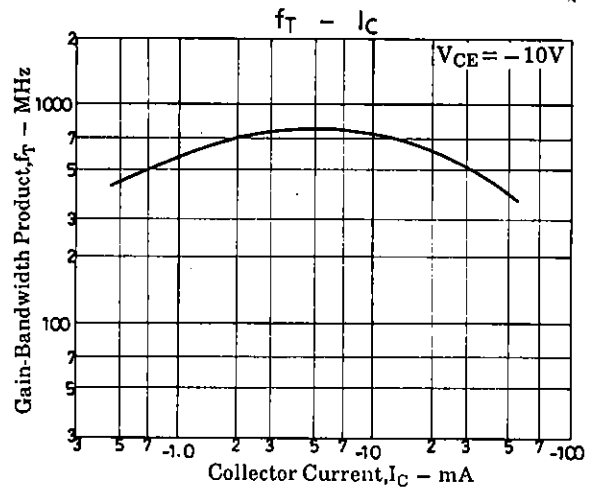
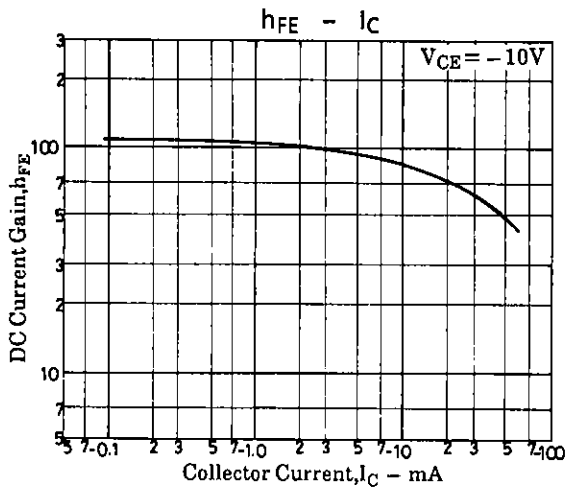
C: Collector
 B: Base
 E: Emitter

SANYO: CP

SANYO Electric Co., Ltd. Semiconductor Business Headquarters

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

12894HO (KOTO) AX-8848 No.4625-1/3



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