

**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 = 25dB typ (f = 100MHz)
- 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  $T_a = 25^\circ\text{C}$** 

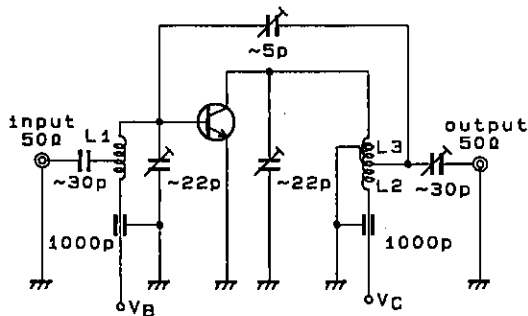
			min	typ	max	unit
Collector Cutoff Current	$I_{CBO}$	$V_{CB} = -12\text{V}, I_E = 0$			-0.1	$\mu\text{A}$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB} = -2\text{V}, I_C = 0$			-0.1	$\mu\text{A}$
DC Current Gain	$h_{FE}$	$V_{CE} = -10\text{V}, I_C = -5\text{mA}$	60*		270*	
Gain-Bandwidth Product	$f_T$	$V_{CE} = -10\text{V}, I_C = -5\text{mA}$		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

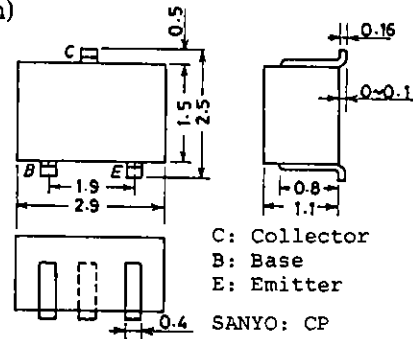
L1 : 1mm $\phi$  plated wire 10mm $\phi$  5T, pitch 15mm,  
tap : 2T from base side

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

L3 : 1mm $\phi$  enamel wire 10mm $\phi$  3T, pitch 10mm

**Package Dimensions 2018A**

(unit : mm)



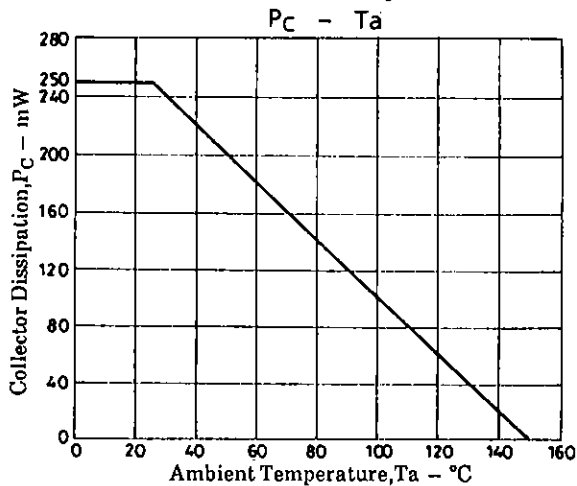
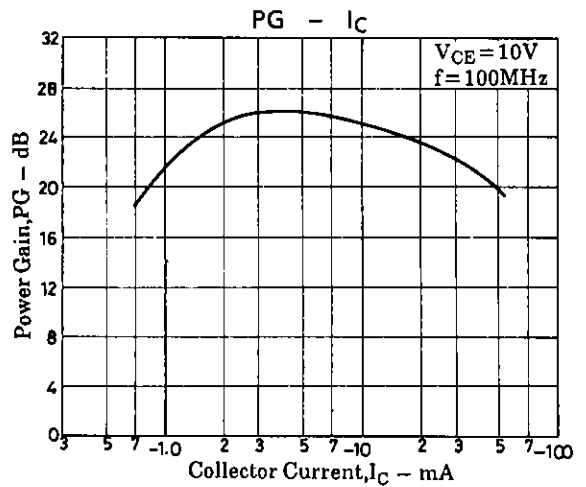
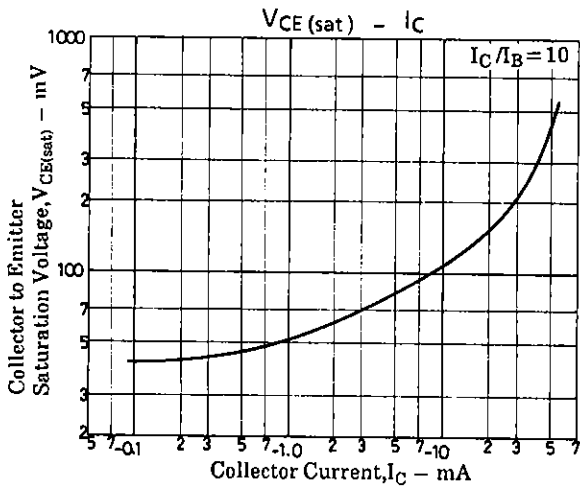
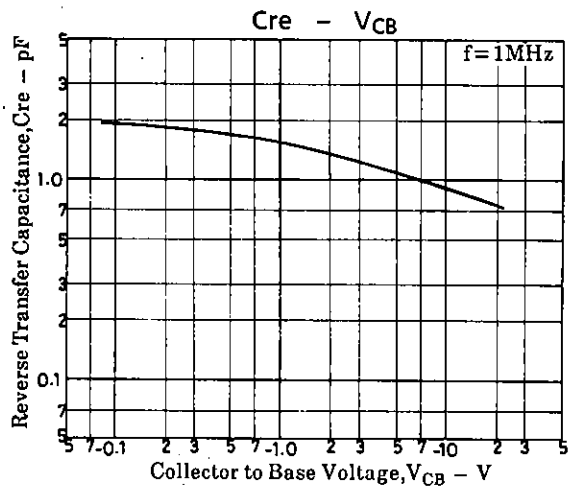
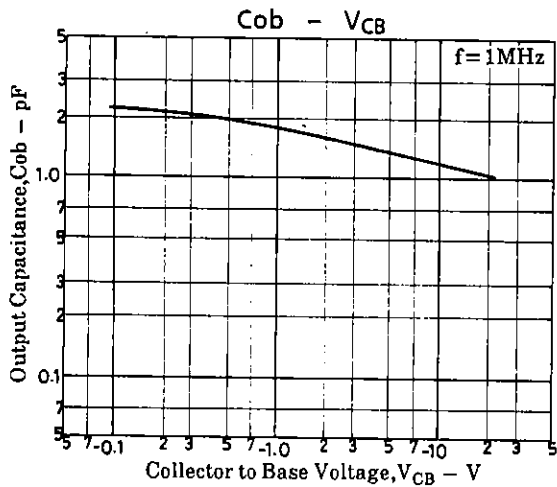
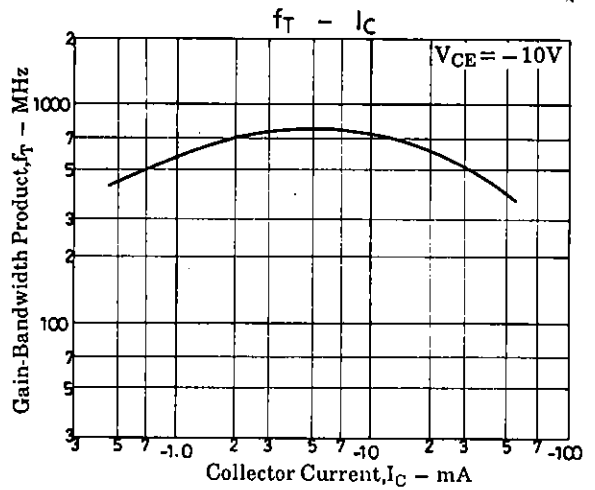
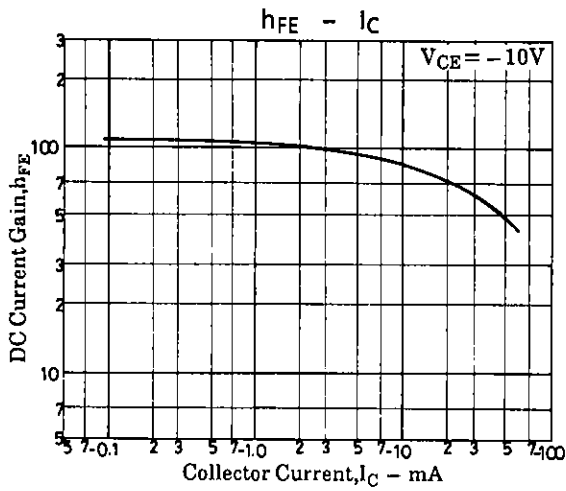
C: Collector  
 B: Base  
 E: Emitter

SANYO: CP

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