

SANYO	No.4644	2SA1857
	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 2SC4400.

Absolute Maximum Ratings at Ta = 25°C

			unit
Collector to Base Voltage	V_{CB0}	-15	V
Collector to Emitter Voltage	V_{CEO}	-12	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	°C
Storage Temperature	T_{stg}	-55 to +150	°C

Electrical Characteristics at Ta = 25°C

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

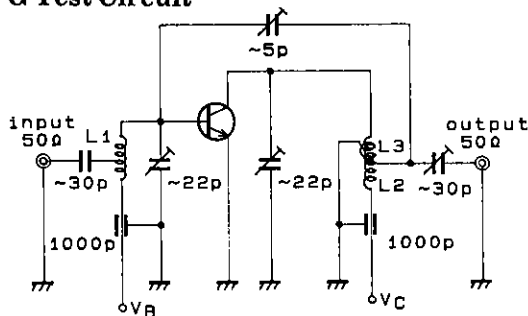
* The 2SA1857 is classified by 5mA h_{FE} as follows:

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

h_{FE} rank : 3, 4, 5

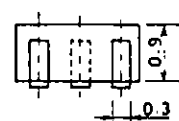
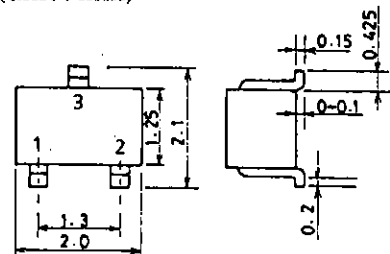
PG Test Circuit



Unit (Capacitance : F) A01661

- 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

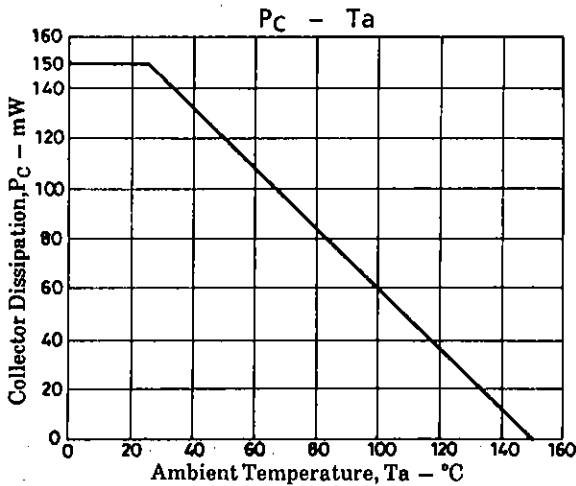
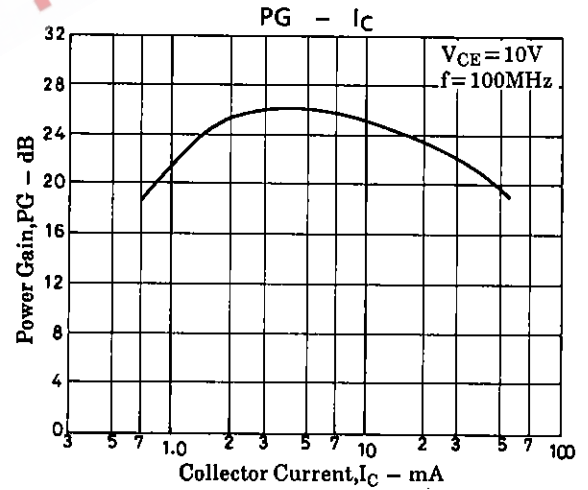
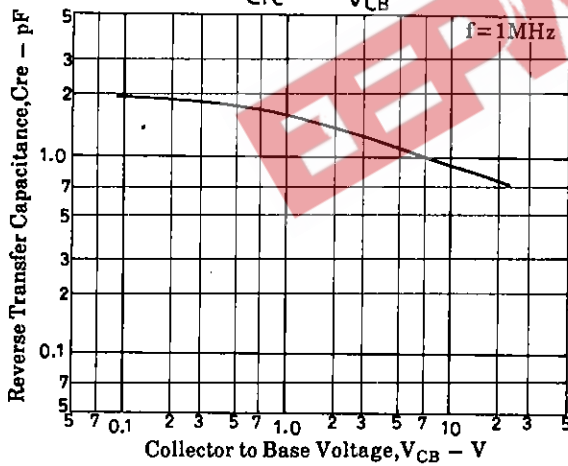
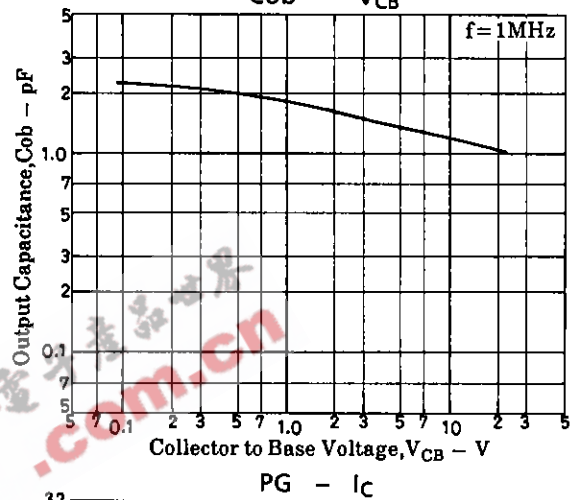
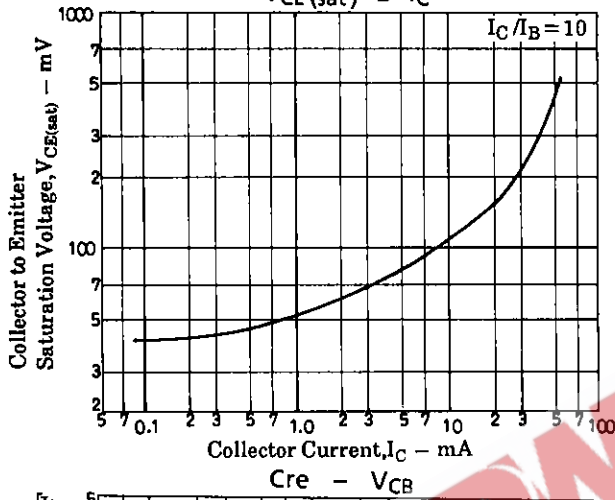
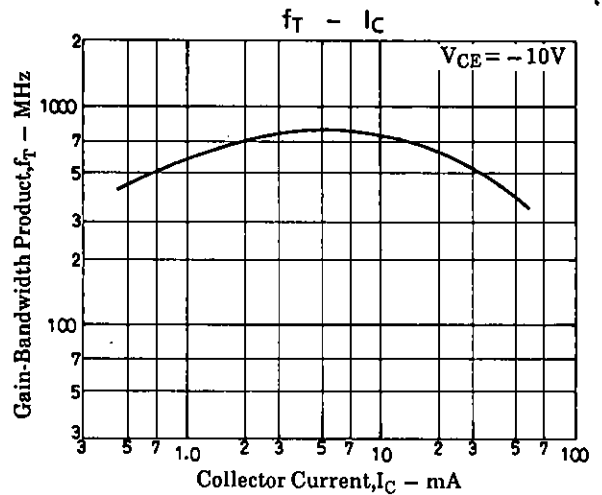
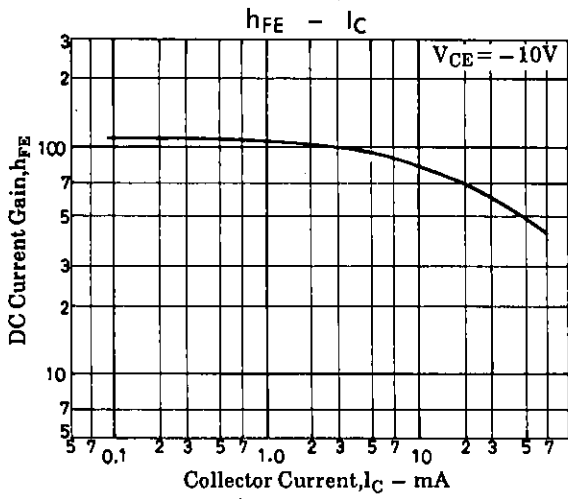
Package Dimensions 2059A
(unit : mm)



- 1 : Base
 - 2 : Emitter
 - 3 : Collector
- SANYO : MCP

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