

SANYO	No.1056C	2SA1256
		PNP Epitaxial Planar Silicon Transistor

High-Frequency Amp Applications

Applications

- Ideally suited for use in FM RF amplifiers, mixers, oscillators, converters, and IF amplifiers.

Features

- High f_T (230MHz typ), and small C_{re} (1.1pF typ).
- Small NF (2.5dB typ).

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

			unit
Collector-to-Base Voltage	V_{CBO}	-30	V
Collector-to-Emitter Voltage	V_{CEO}	-20	V
Emitter-to-Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-30	mA
Collector Dissipation	P_C	150	W
Junction Temperature	T_j	125	$^\circ C$
Storage Temperature	T_{stg}	-55 to +125	$^\circ C$

Electrical Characteristics at $T_a = 25^\circ C$

			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = -10V, I_E = 0$			-0.1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = -4V, I_C = 0$			-0.1	μA
DC Current Gain	h_{FE}	$V_{CE} = -6V, I_C = -1mA$	60*		270*	
Gain-Bandwidth Product	f_T	$V_{CE} = -6V, I_C = -1mA$	150	230		MHz
Reverse Transfer Capacitance	C_{re}	$V_{CB} = -6V, f = 1MHz$		1.1	1.7	pF
Base-to-Collector Time Constant	$r_{bb}'C_c$	$V_{CE} = -6V, I_C = -1mA, f = 31.9MHz$		11	20	ps
Noise Figure	NF	$V_{CE} = -6V, I_C = -1mA, f = 100MHz$		2.5		dB
Voltage Gain	PG	$V_{CE} = -6V, I_C = -1mA, f = 100MHz$		22		dB

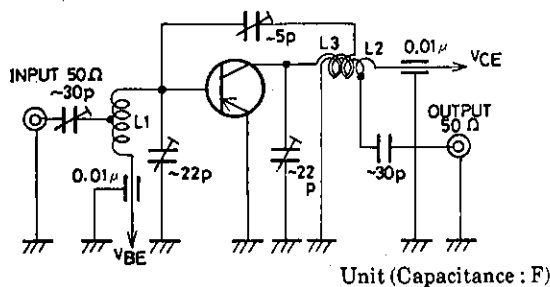
*: The 2SA1256 is classified by 1mA h_{FE} as follows :

60	E3	120	90	E4	180	135	E5	180
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Note) Marking : E

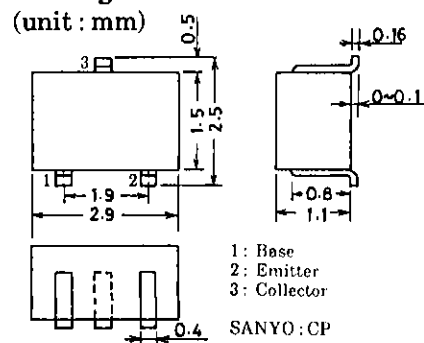
h_{FE} rank : 3, 4, 5

NF, PG Test Circuit

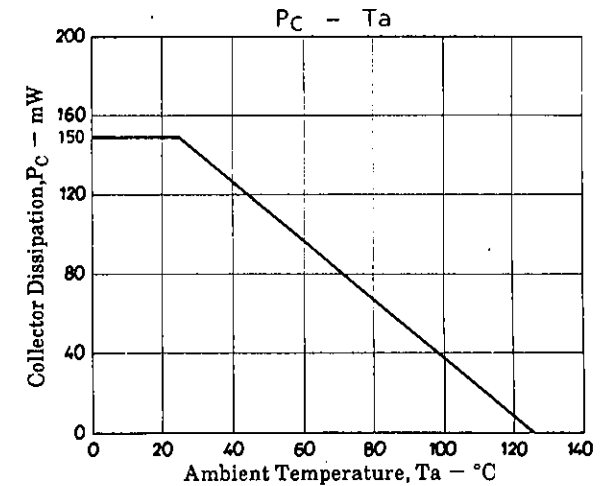
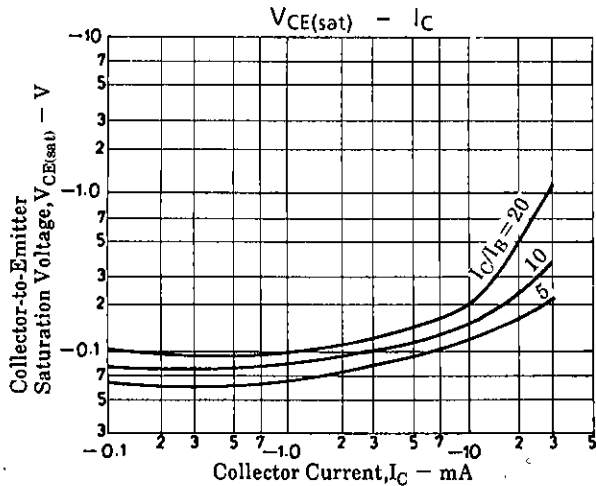
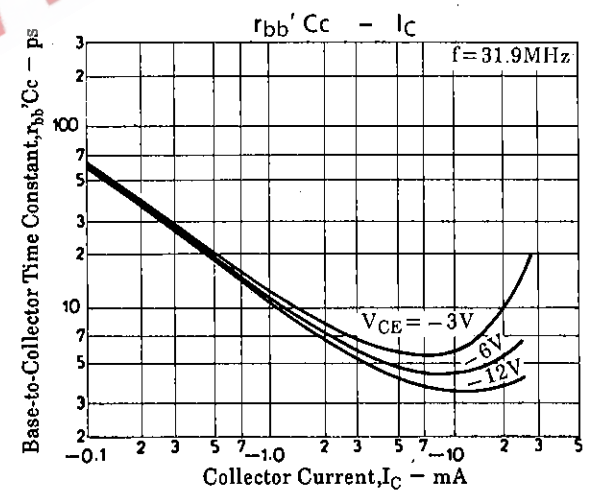
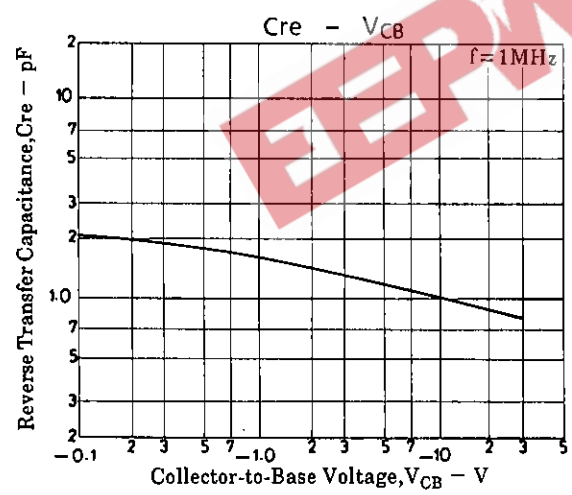
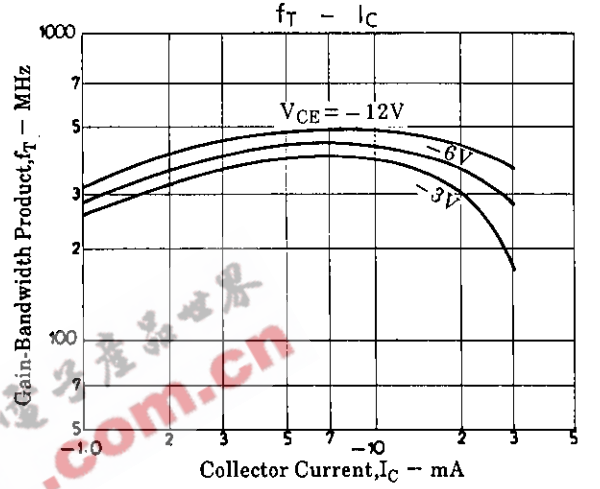
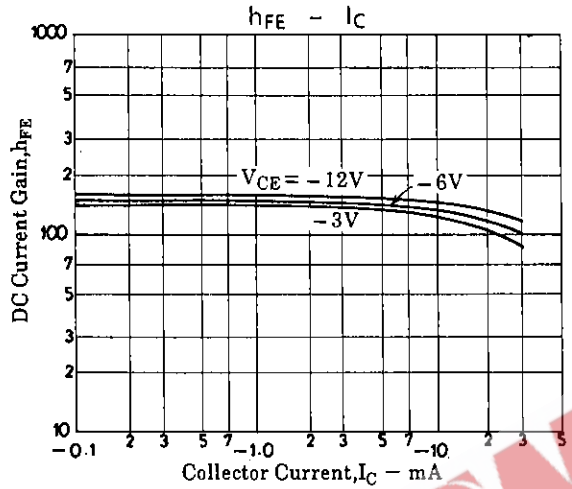
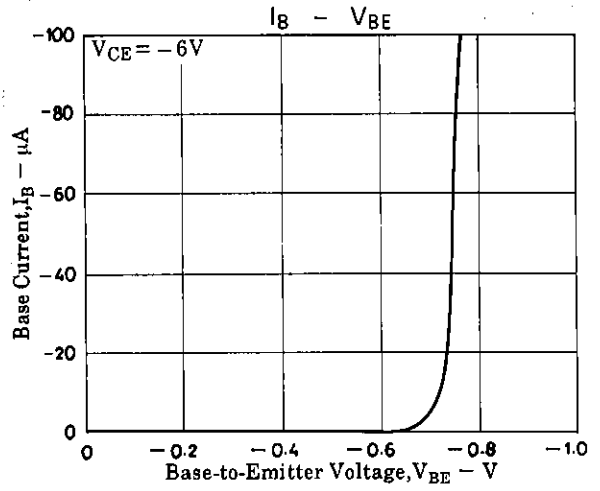
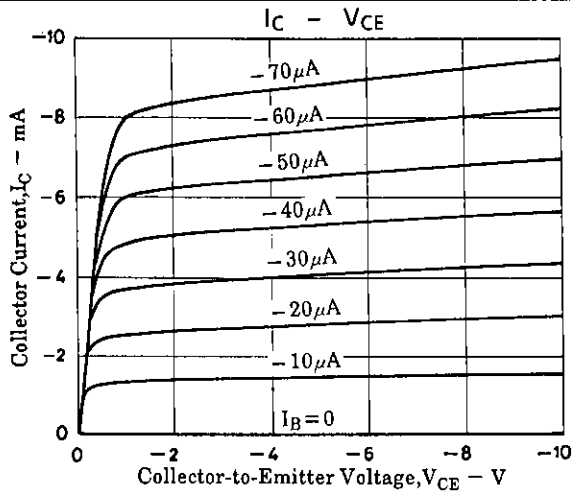


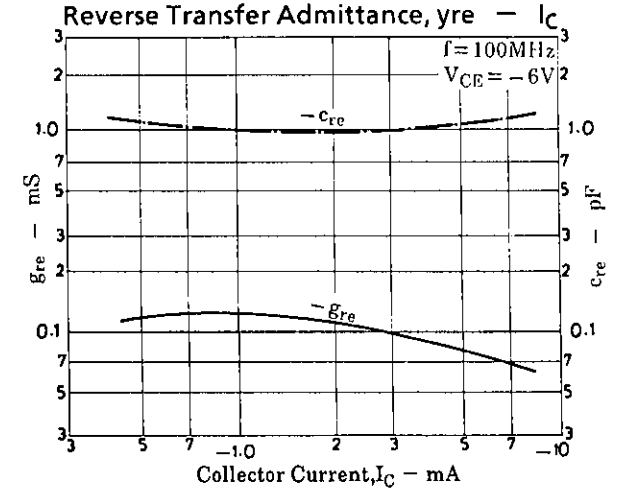
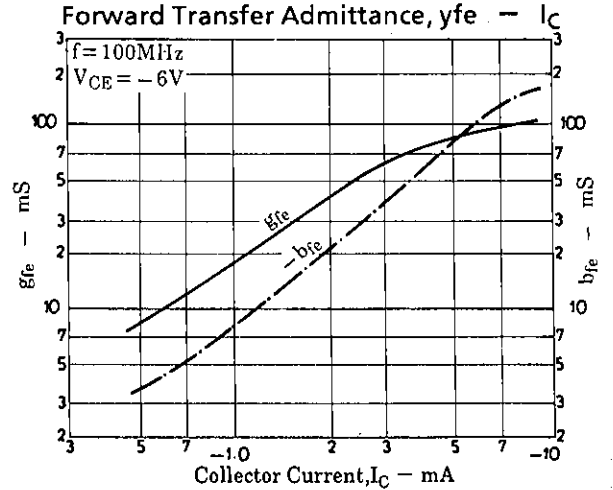
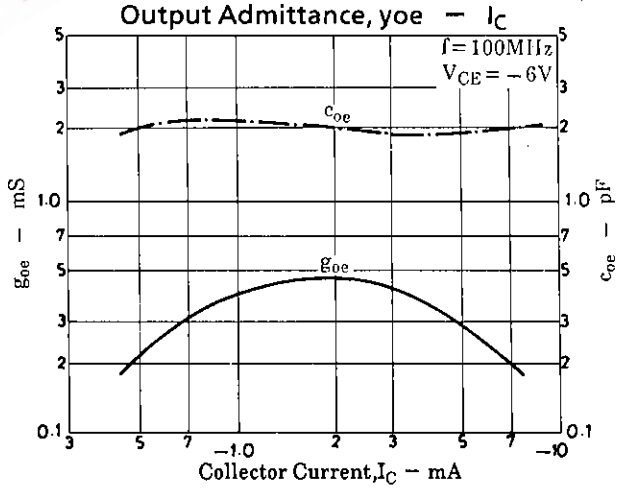
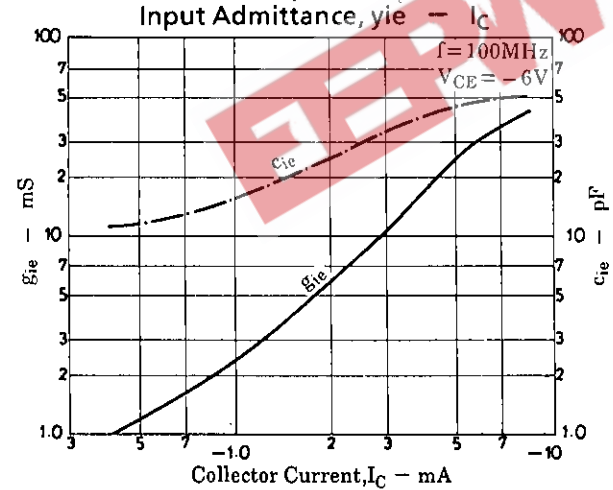
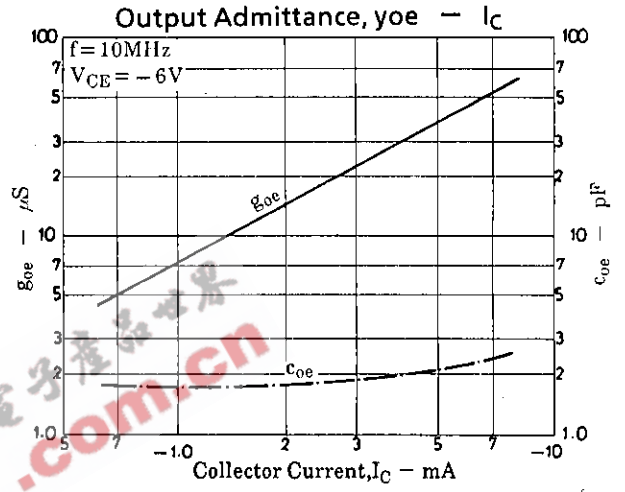
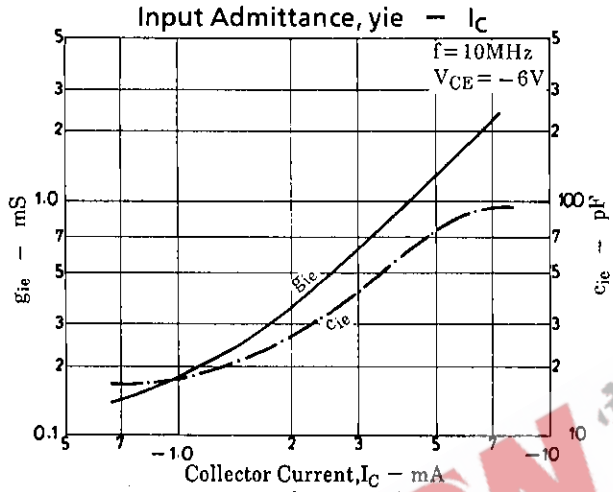
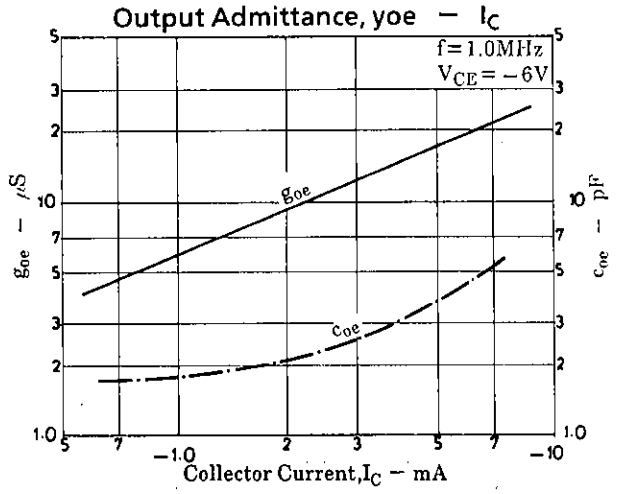
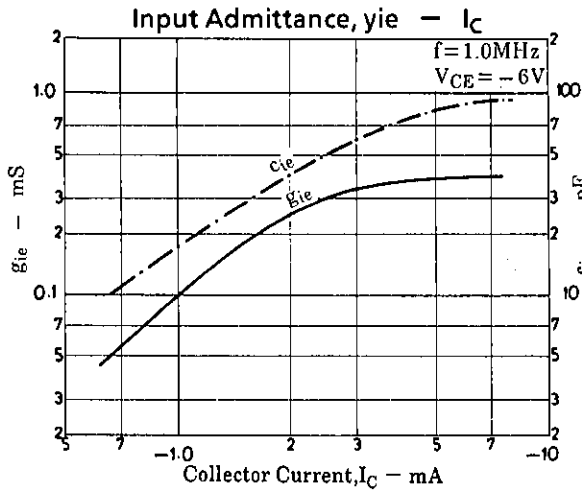
- L1 : 1mm ϕ plated wire 10mm ϕ 5T, tap : 2T from V_{BE} side
- L2 : 1mm ϕ plated wire 10mm ϕ 7T, tap : 1T from V_{CE} side
- L3 : 1mm ϕ enamel wire 10mm ϕ 3T

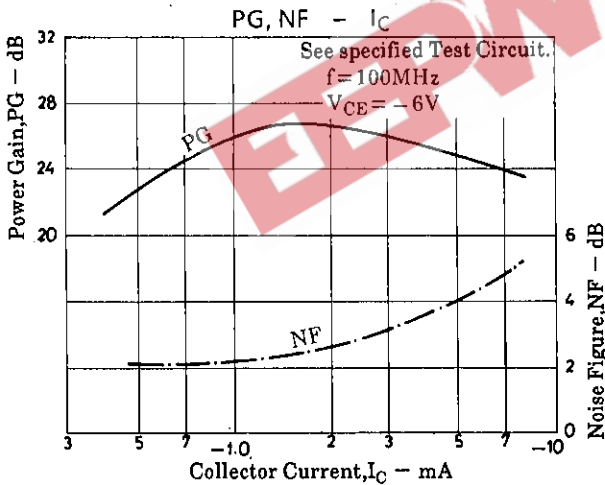
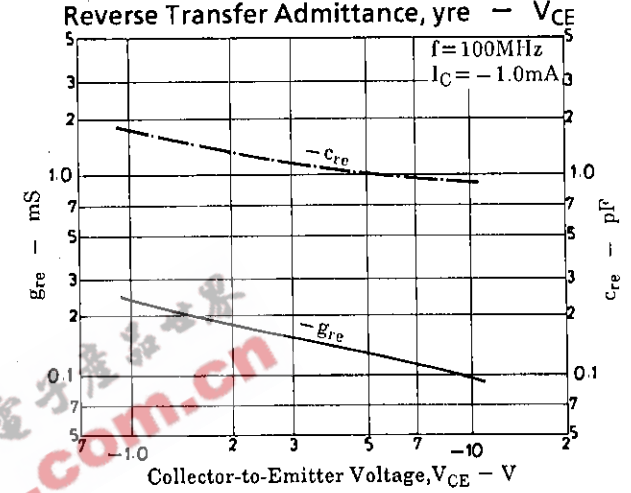
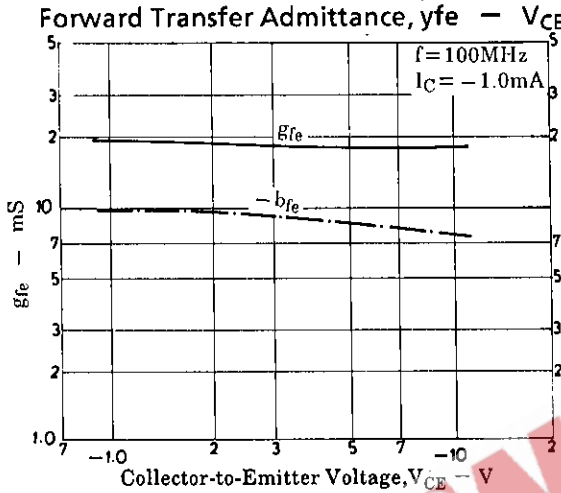
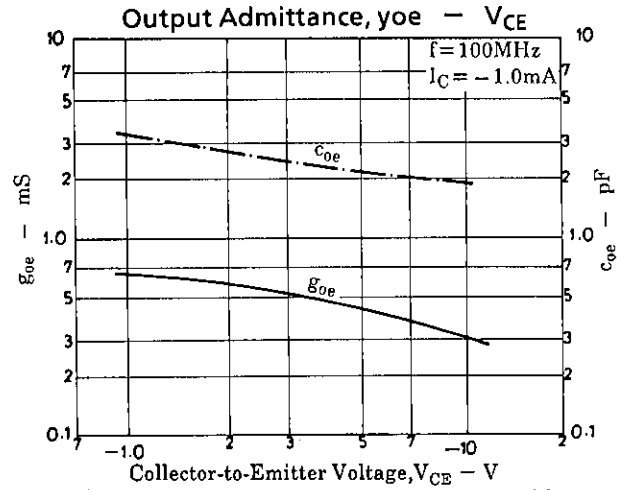
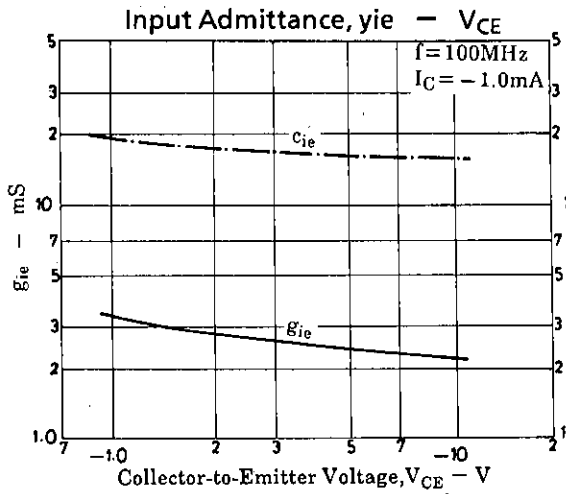
Package Dimensions 2018B



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