

SANYO	No.3020	2SC4399
		NPN Epitaxial Planar Silicon Transistor High-Frequency General-Purpose Amp Applications

Features

- High power gain : PG=25dB typ (f=100MHz)
- Very small-sized package permitting the 2SC4399-applied sets to be made small and slim

Absolute Maximum Ratings at Ta=25°C

			unit
Collector to Base Voltage	V _{CB0}	30	V
Collector to Emitter Voltage	V _{CE0}	20	V
Emitter to Base Voltage	V _{EB0}	5	V
Collector Current	I _C	30	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 _{CB0}	V _{CB} =10V, I _E =0			0.1	μA
Emitter Cutoff Current	I _{EB0}	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	200	320		MHz
Reverse Transfer Capacitance	c _{re}	V _{CB} =6V, f=1MHz		0.9	1.2	pF
Base to Collector Time Constant	r _{bb} 'C _c	V _{CE} =6V, I _C =1mA, f=31.9MHz		12	20	ps
Power Gain	PG	V _{CE} =6V, I _C =1mA, f=100MHz		25		dB
Noise Figure	NF	V _{CE} =6V, I _C =1mA, f=100MHz		3.0		dB

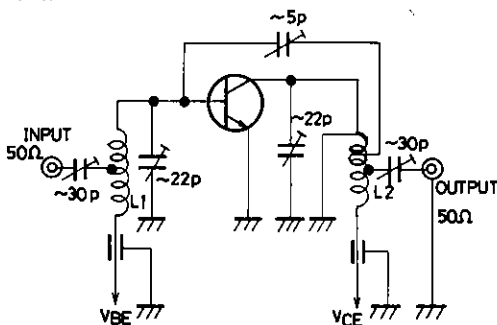
* : The 2SC4399 is classified by 1mA h_{FE} as follows:

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

h_{FE} rank : 3,4,5

NF,PG Test Circuit

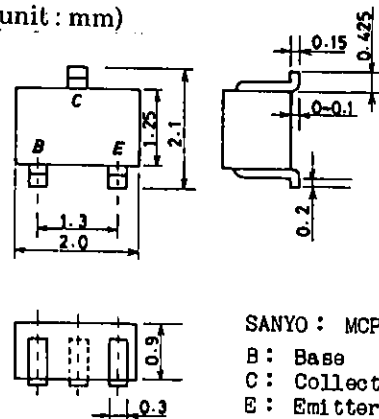


- L1: 1mmϕ plated wire 10mmϕ 4T, tap: 2T from V_{BE} side
- L2: 1mmϕ plated wire 10mmϕ 7T, tap: 1T from V_{CE} side
- L3: 1mmϕ enameled wire 10mmϕ 3T

Unit (Capacitance : F)

Package Dimensions 2059A

(unit : mm)

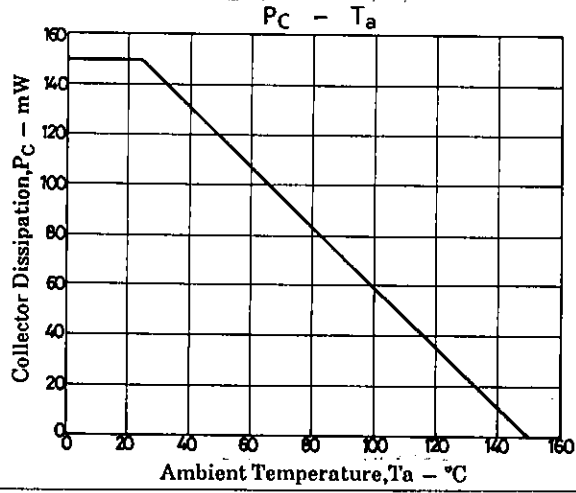
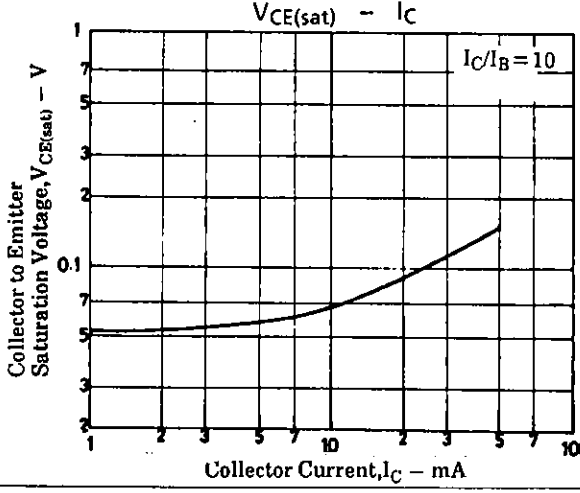
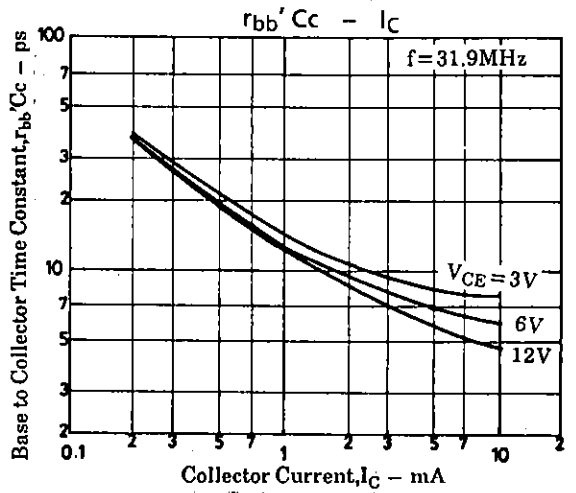
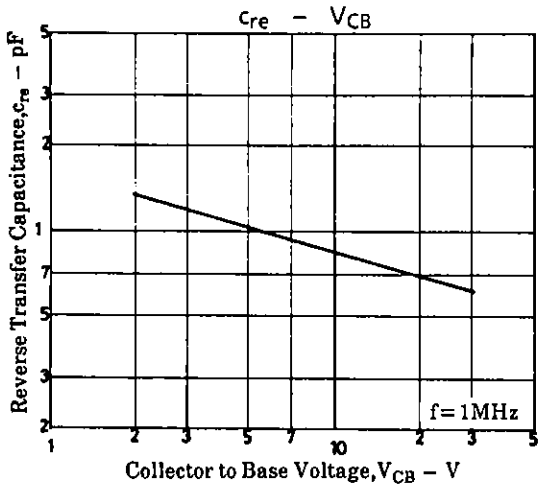
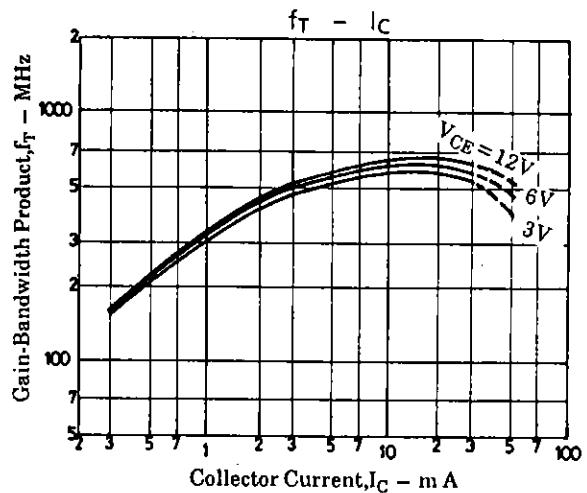
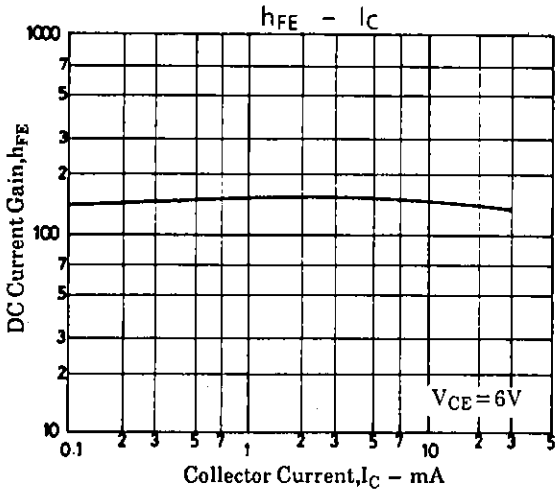
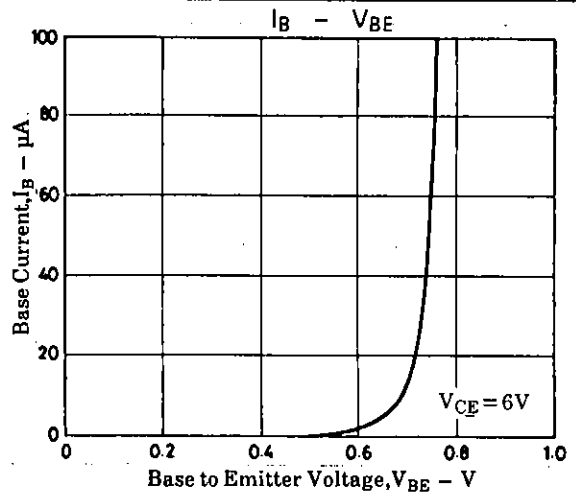
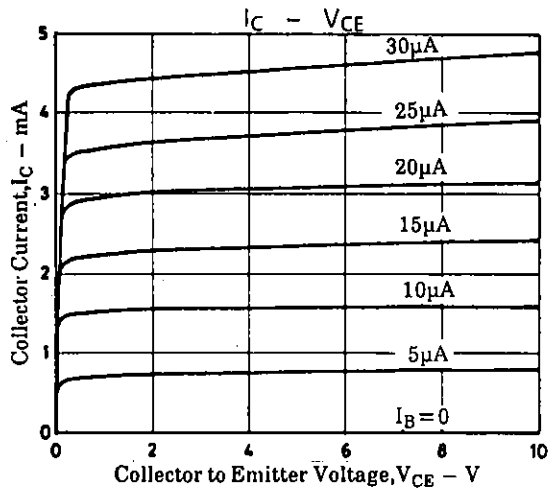


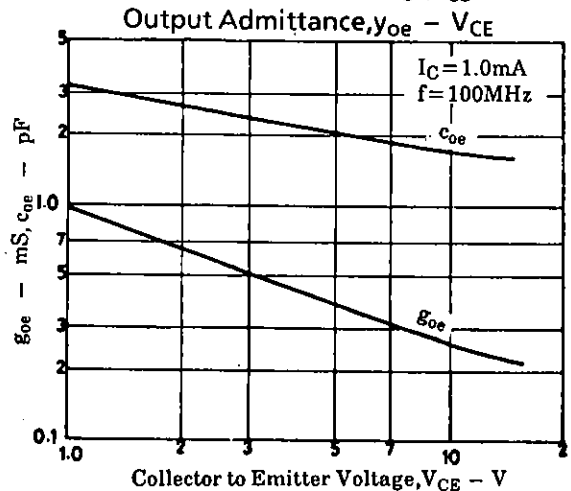
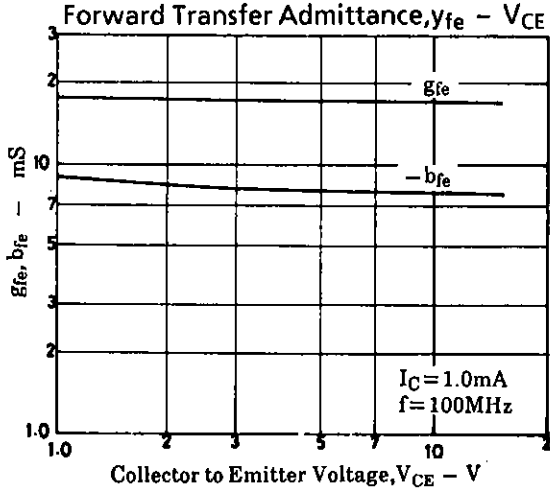
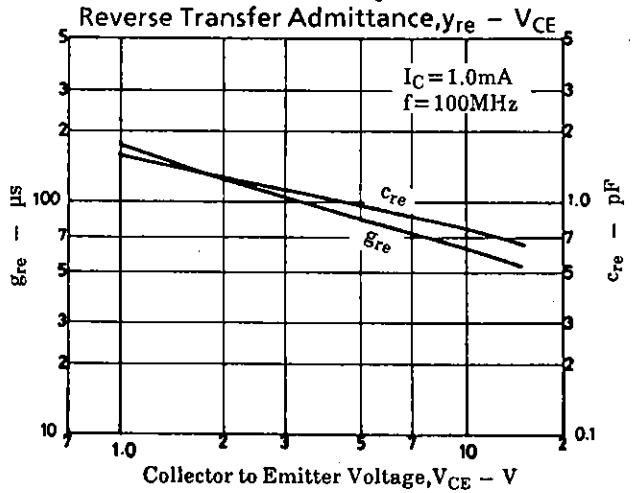
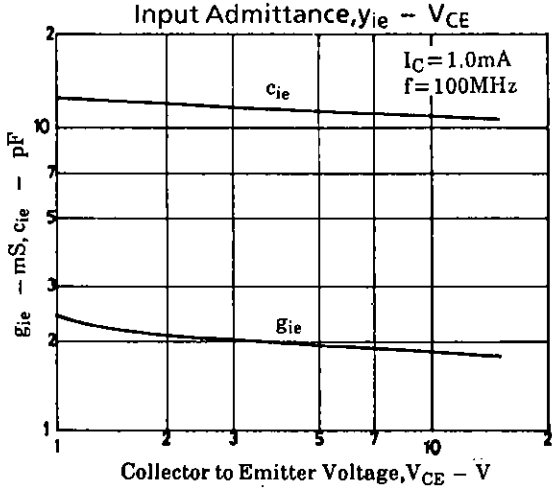
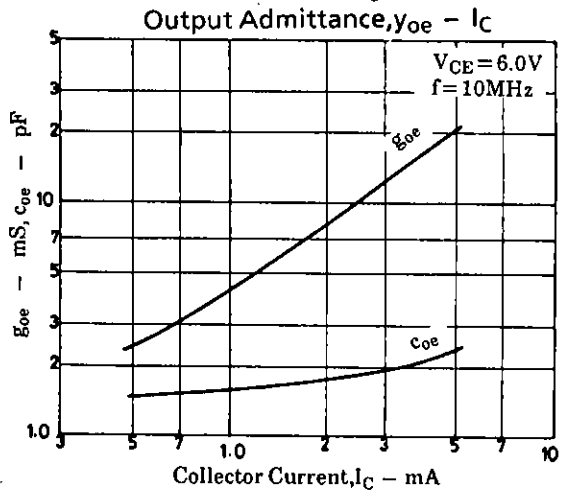
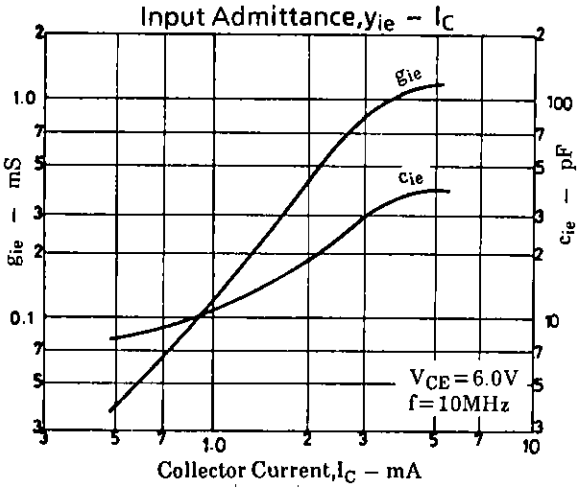
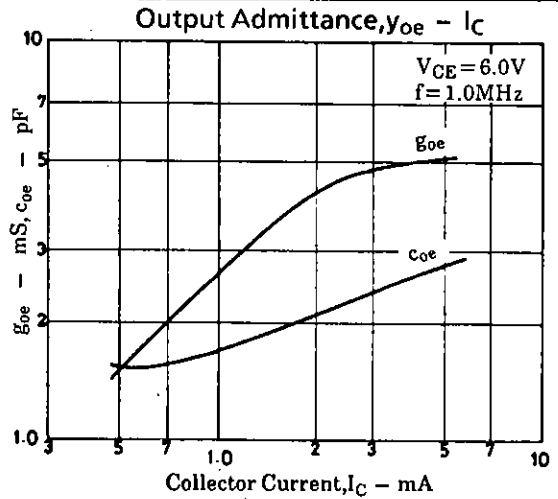
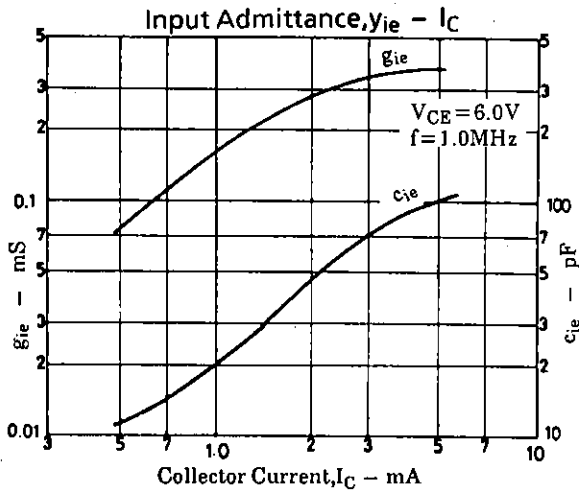
SANYO : MCP

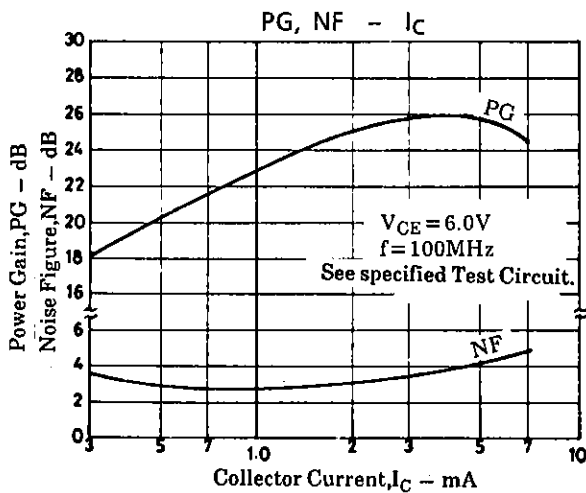
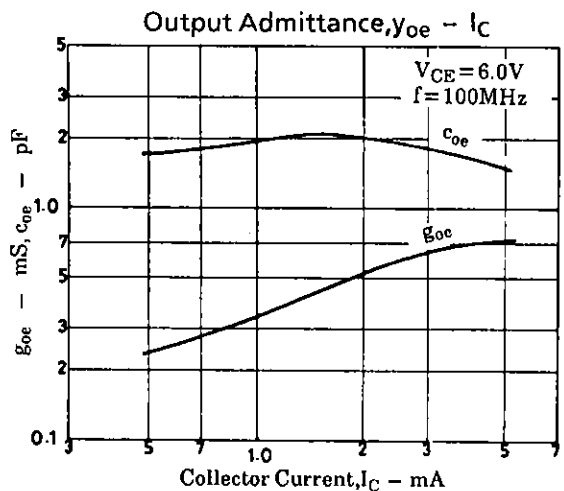
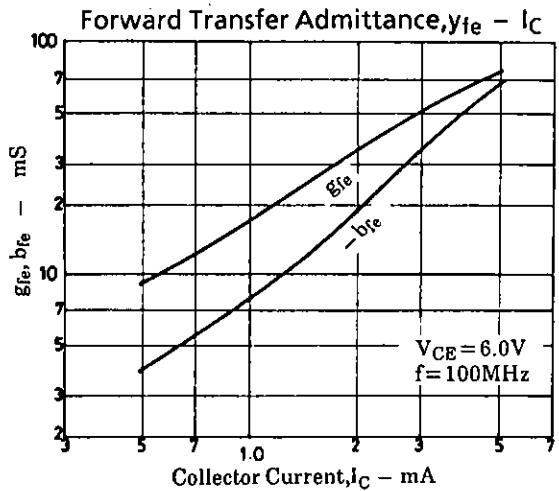
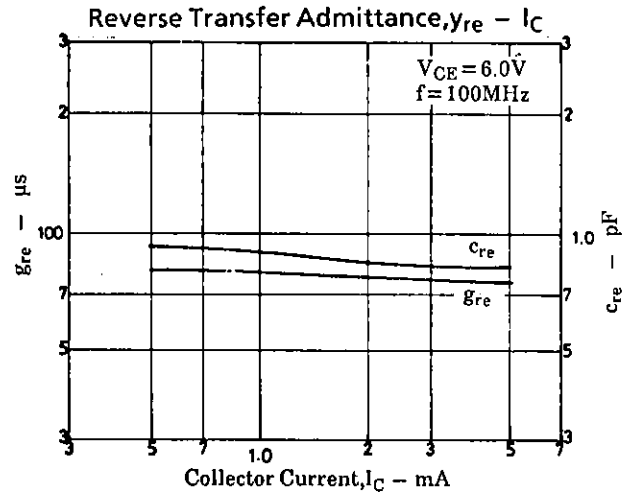
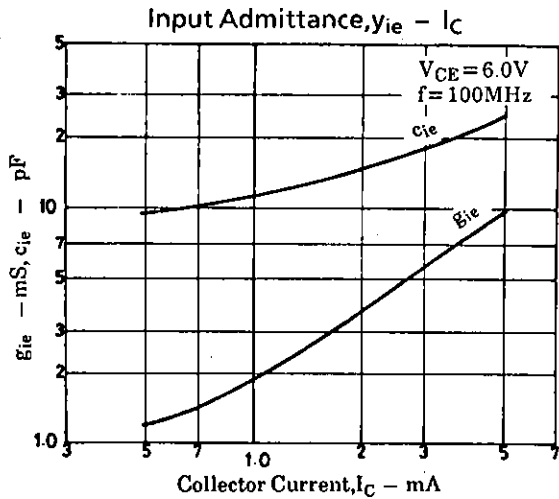
B : Base

C : Collector

E : Emitter







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