2SC3000



HF Amplifier Applications

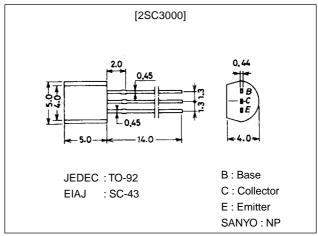
Features

- · FBET series.
- · High f_T and small C_{re}.

Package Dimensions

unit:mm

2003A



320

Specifications

Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	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	IC		30	mA
Collector Dissipation	PC		250	mW
Junction Temperature	Tj		125	°C
Storage Temperature	Tstg		-55 to +125	°C

Electrical Characteristics at Ta = 25°C

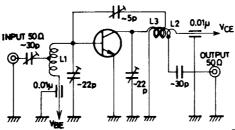
Parameter	Symbol	Conditions	Ratings			Unit
Farameter			min	typ	max	Oill
Collector Cutoff Current	ICBO	V _{CB} =10V, I _E =0			0.1	μΑ
Emitter Cutoff Current	IEBO	V _{EB} =4V, I _C =0			0.1	μΑ
DC Current Gain	hFE	V _{CE} =6V, I _C =1mA	60*		320*	
Gain-Bandwidth Product	fΤ	V _{CE} =6V, I _C =1mA	200	320		MHz
Reverse Transfer Capacitance	C _{re}	V _{CB} =6V, f=1MHz	0.7	1.1	1.4	pF
Base-to-Collector Time Constant	rbb'C _C	V _{CE} =6V, I _C =1mA, f=31.9MHz		15	22	ps
Noise Figure	NF	V _{CE} =6V, I _C =1mA, f=100MHz		3.0		dB
Power Gain	PG	V _{CE} =6V, I _C =1mA, f=100MHz		25		dB

^{*:} The 2SC2300 are classified by 1mA h_{FE} as follows: 60 D 120 100 E 200 160 F

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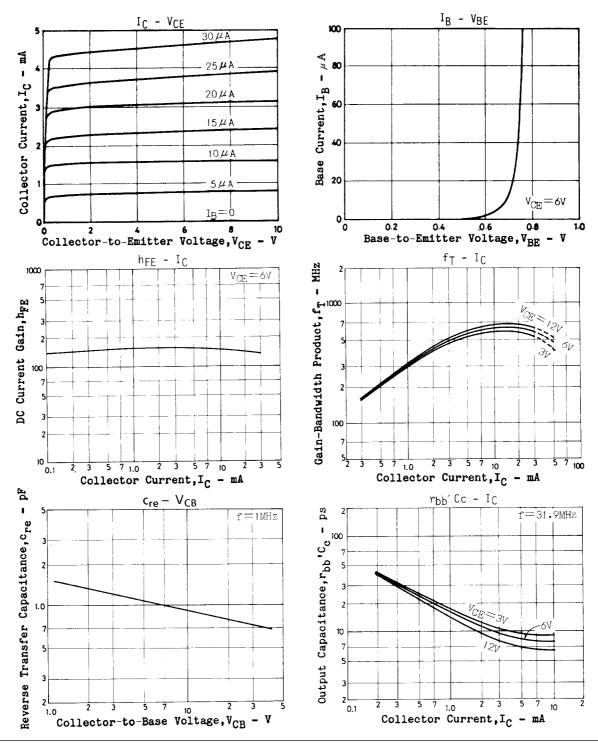
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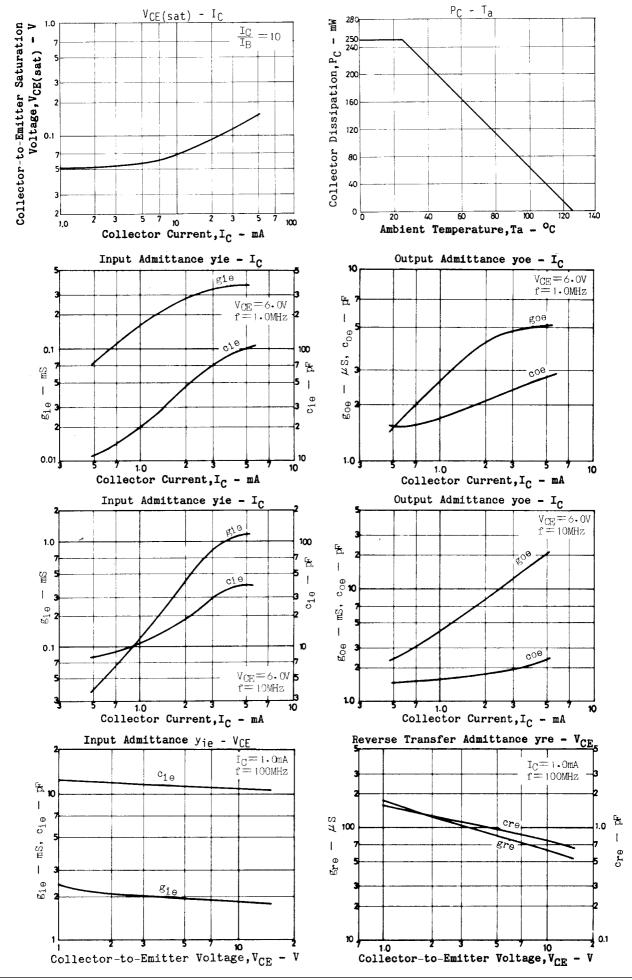
NF, PG Test Circuit

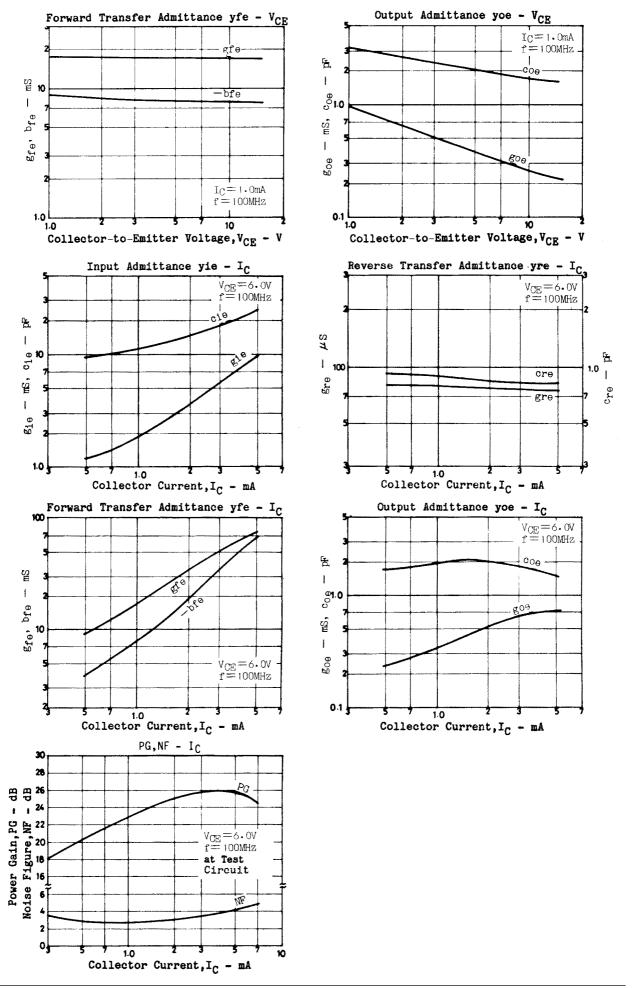


Unit(capacitance:F)

L1: 1mmø plated wire, 10mmø 5T, tapped at 2T from $V_{\rm BE}$. L2: 1mmø plated wire, 10mmø 7T, tapped at 1T from $V_{\rm CE}$. L3: 1mmø enameled wire, 10mmø 3T.







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