2SC2839



HF Amplifier Applications

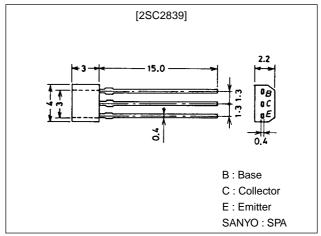
Features

- · Very small package enabiling compactness and slimness of sets.
- \cdot High f_T and small c_{re} (f_T=320MHz typ, c_{re} =0.95pF typ).

Package Dimensions

unit:mm

2033



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		150	mW	
Junction Temperature	Tj		125	°C	
Storage Temperature	Tstg		-55 to +125	°C	

Electrical Characteristics at Ta = 25°C

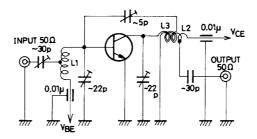
Parameter	Symbol	Conditions	Ratings			Unit
Farameter	Symbol	Conditions		typ	max	Unit
Collector Cutoff Current	I _{CBO}	V _{CB} =10V, I _E =0			0.1	μΑ
Emitter Cutoff Current	I _{EBO}	V _{EB} =4V, I _C =0			0.1	μA
DC Current Gain	hFE	V _{CE} =6V, I _C =1mA	60*		320*	
Gain-Bandwidth Product	fT	V _{CE} =6V, I _C =1mA	200	320		MHz
Reverse Transfer Capacitance	C _{re}	V _{CB} =6V, f=1MHz	0.7	0.95	1.3	pF
Base-to-Collector Time Constant	rbb'C _C	V _{CE} =6V, I _C =1mA, f=31.9MHz		12	20	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 2SC2839 are classified as follows by hFE at 1mA:

A :	60	D	120	100	Е	200	160	F	320
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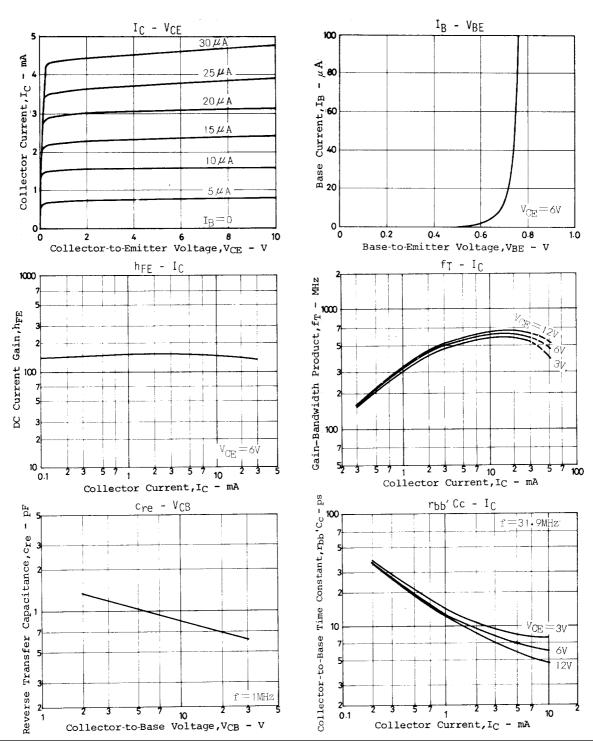
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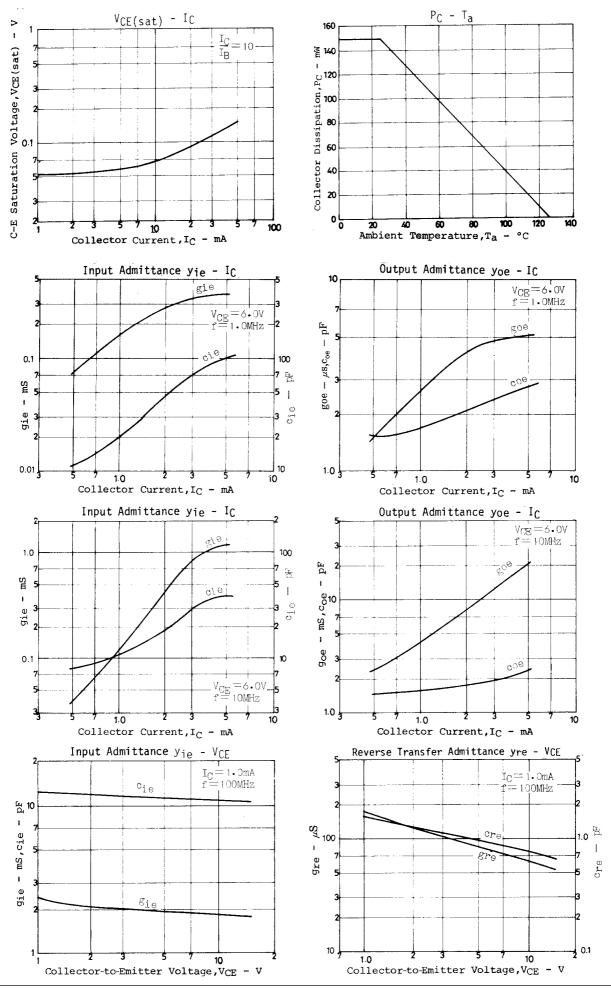
NF, PG Test Circuit

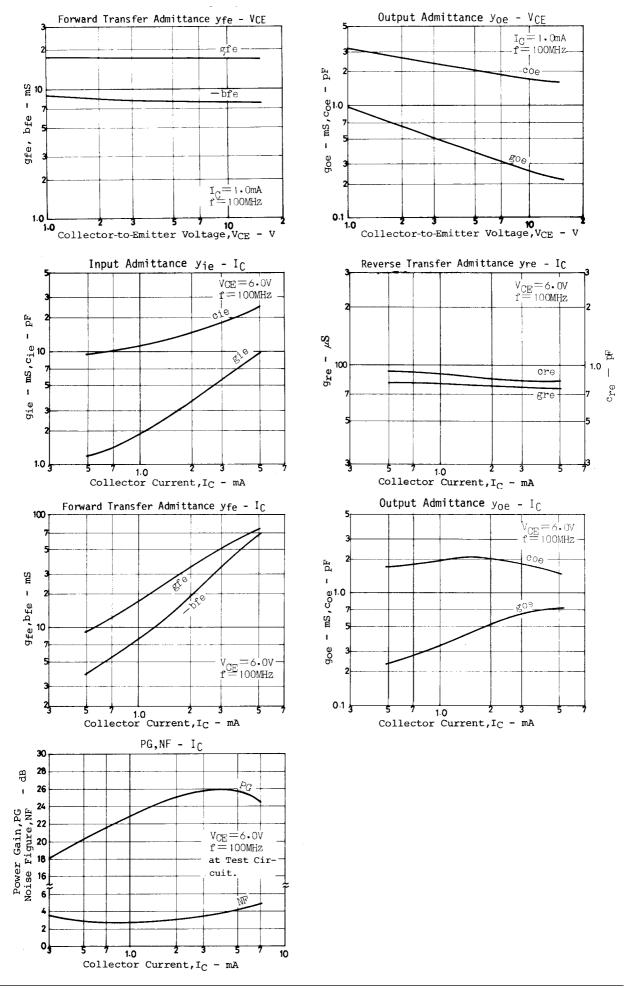


L1 : lmmø plated wire, lOmmø 5T tap, 2T from VBE side. L2 : lmmø plated wire, lOmmø 7T tap, lT from VCE side. L3 : lmmø plated wire, lOmmø 3T.

Unit(capacitance : F)







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