

SANYO

No.796C

2SC2840

NPN Epitaxial Planar Type Silicon Transistor
FOR HIGH FREQUENCY AMPLIFIER USE

Features

- . FBET series.
- . Compact package enabling compactness of sets.
- . High f_T and small c_{re} ($f_T=600\text{MHz typ}$, $c_{re}=0.5\text{pF typ}$).

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

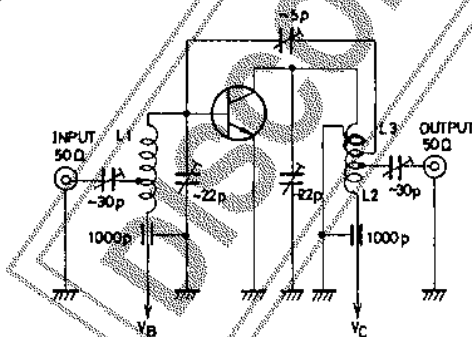
		unit
Collector to Base Voltage	V_{CB0}	25 V
Collector to Emitter Voltage	V_{CEO}	20 V
Emitter to Base Voltage	V_{EBO}	3 V
Collector Current	I_C	30 mA
Collector Dissipation	P_C	150 mW
Junction Temperature	T_J	125 $^\circ\text{C}$
Storage Temperature	T_{stg}	-40 to +125 $^\circ\text{C}$

Electrical Characteristics at $T_a=25^\circ\text{C}$

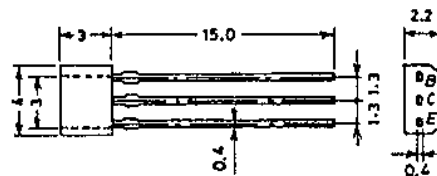
		min	typ	max	unit
Collector Cutoff Current	I_{CBO} $V_{CB}=10\text{V}, I_E=0$			0.1	μA
Emitter Cutoff Current	I_{EBO} $V_{EB}=3\text{V}, I_C=0$			0.1	μA
DC Current Gain	h_{FE} $V_{CB}=6\text{V}, I_C=1\text{mA}$	40*		200*	
Gain-Bandwidth Product	f_T $V_{CE}=6\text{V}, I_C=1\text{mA}$	360	600		MHz
Reverse Transfer Capacitance	c_{re} $V_{CB}=6\text{V}, f=1\text{MHz}$	0.5	0.8		pF
C-B Time Constant	$r_{bb} \tau_C$ $V_{CB}=6\text{V}, I_C=1\text{mA}, f=31.9\text{MHz}$			19	ps
Noise Figure	NF $V_{CE}=6\text{V}, I_C=1\text{mA}, f=100\text{MHz}$	2.8			dB
Power Gain	PG $V_{CE}=6\text{V}, I_C=1\text{mA}, f=100\text{MHz}$	27			dB

*:The 2SC2840 is classified by 1mA h_{FE} as follows :

40	C	80	60	D	120	100	E	200
----	---	----	----	---	-----	-----	---	-----

NF, PC Test Circuit

- 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 enameled wire, 10mm ϕ 3T, pitch 10mm.

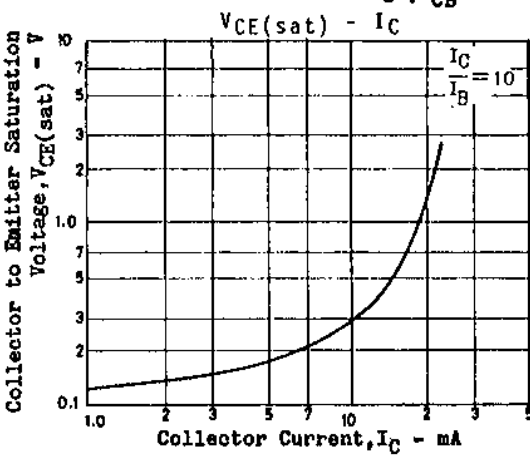
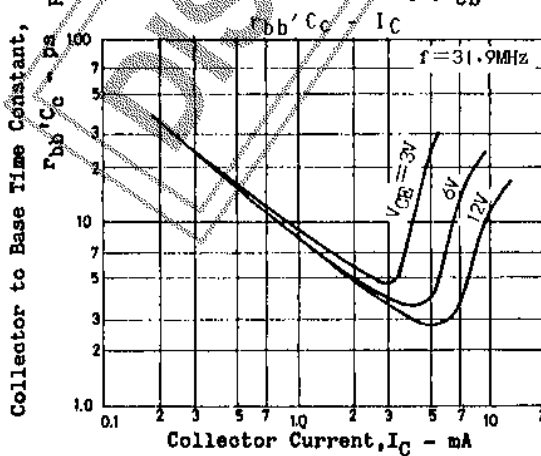
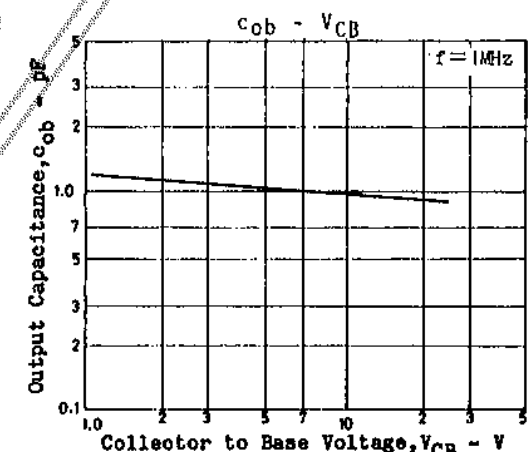
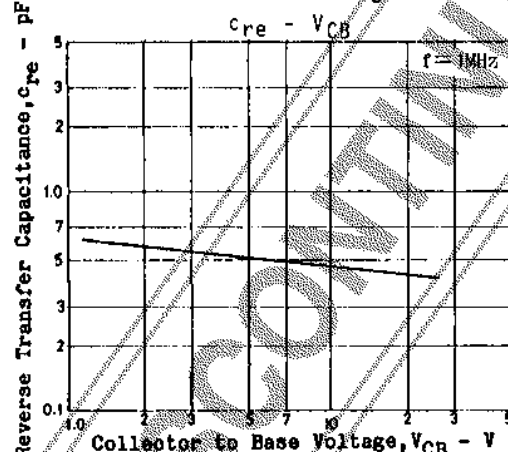
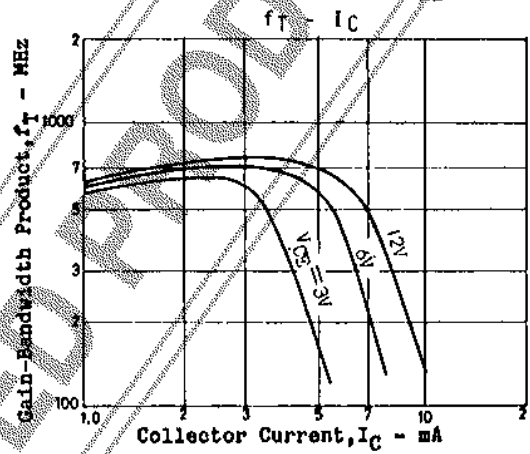
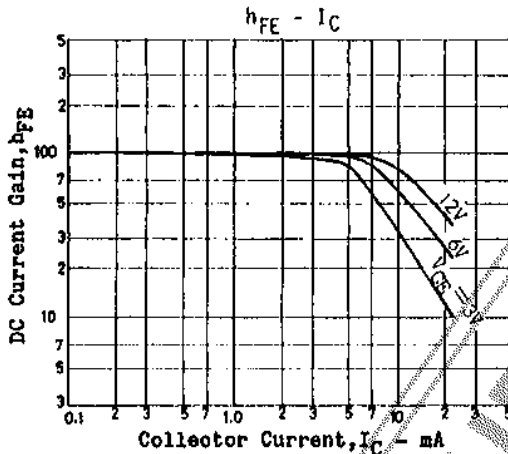
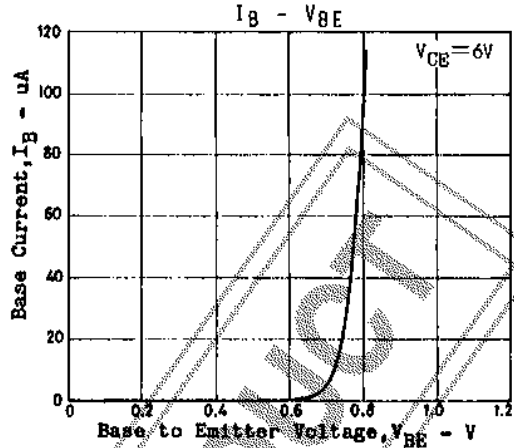
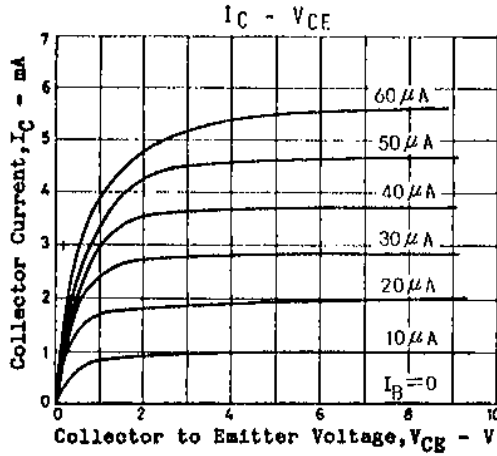
**Case Outline 2033
(unit:mm)**

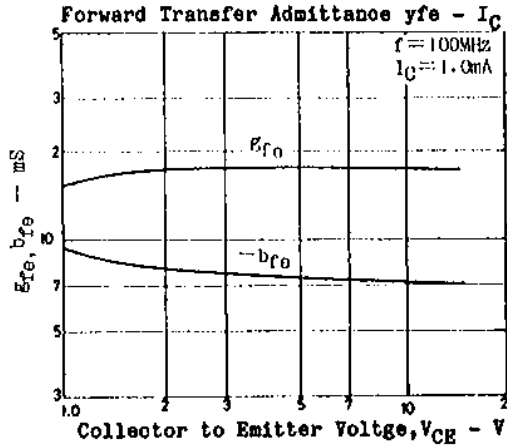
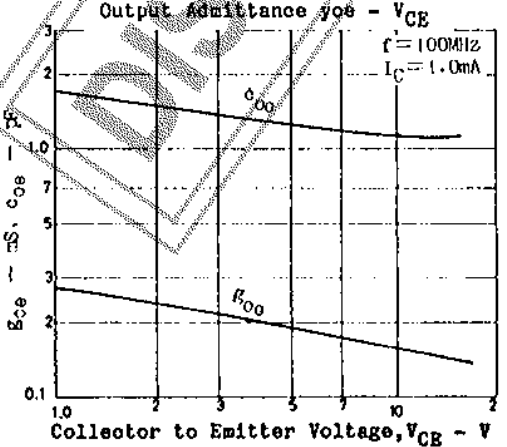
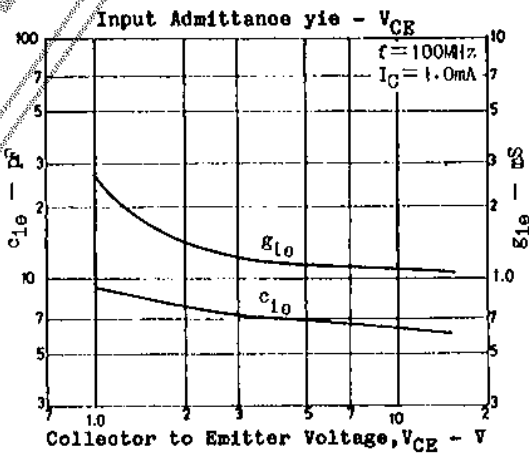
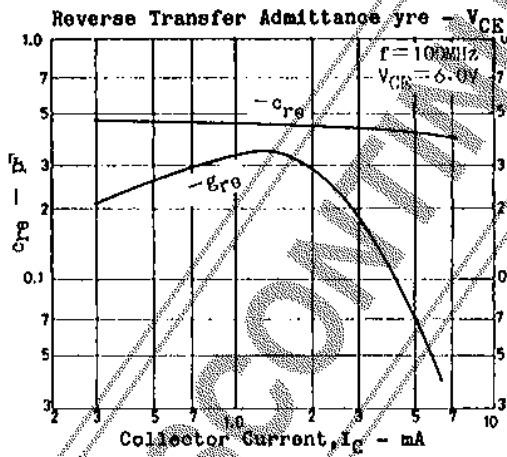
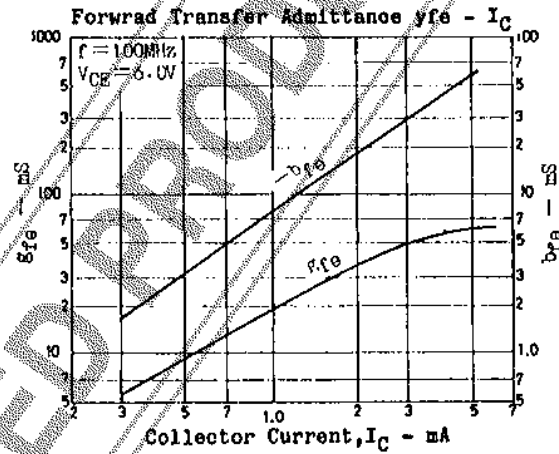
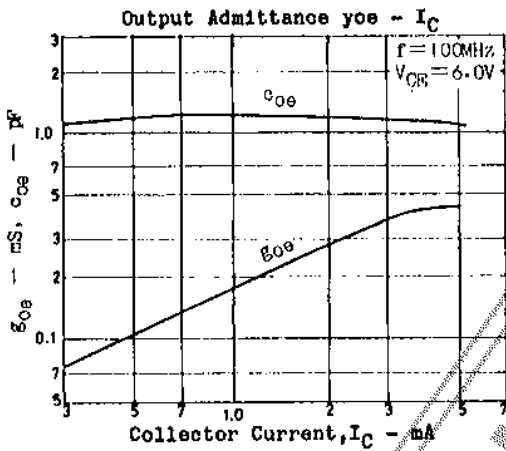
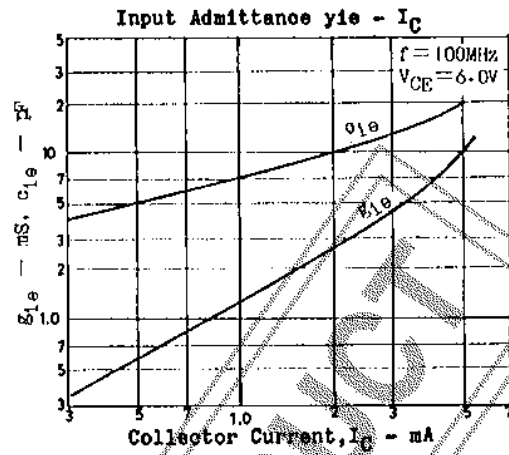
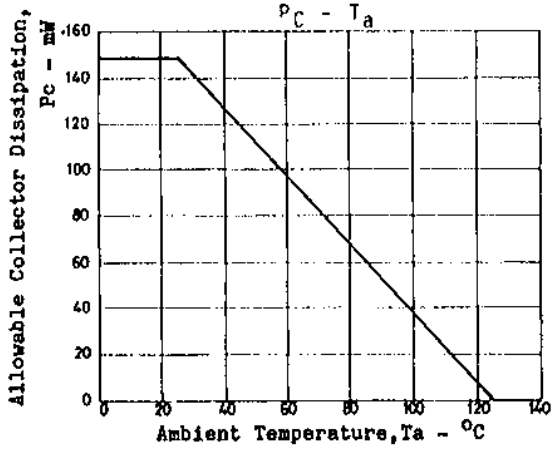
B: Base
C: Collector
E: Emitter

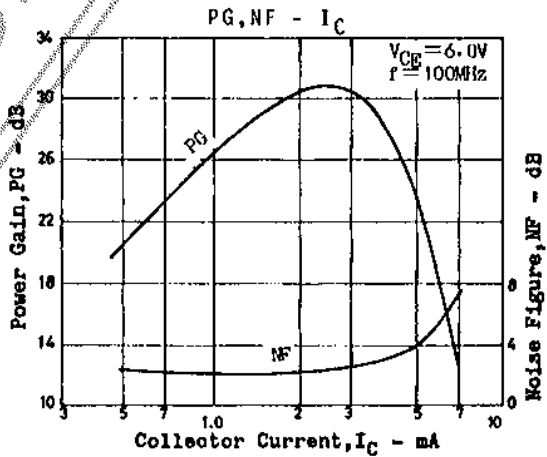
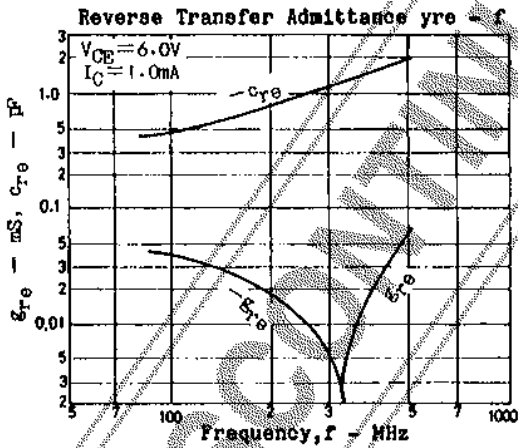
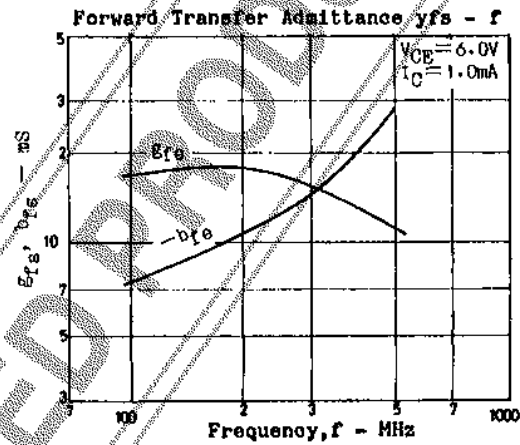
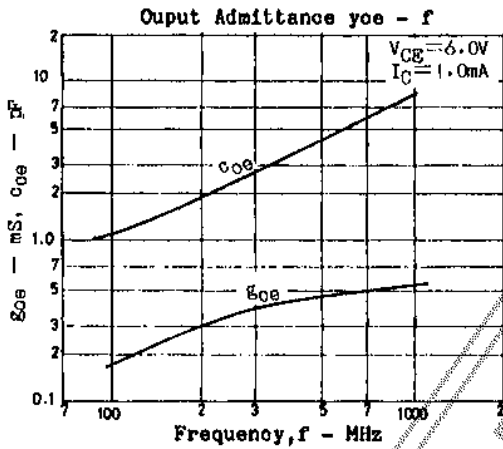
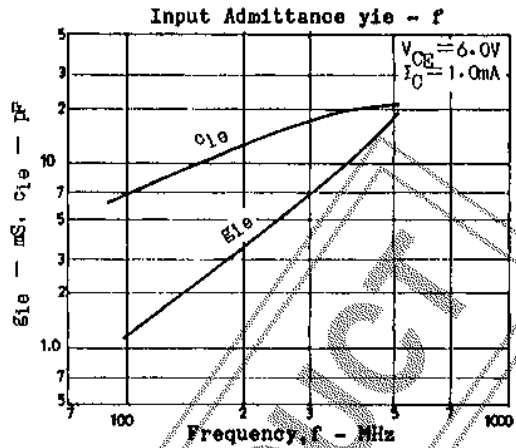
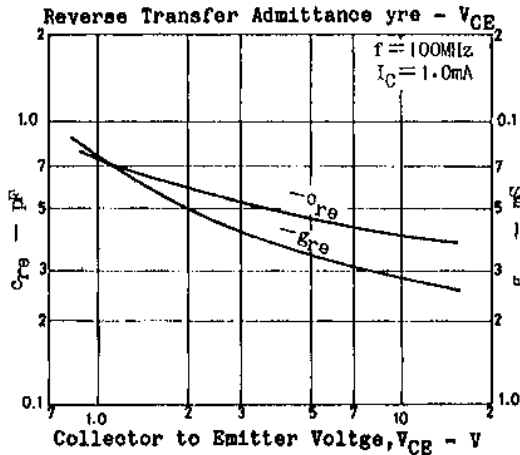
SANYO: SPA

These specifications are subject to change without notice.

SANYO ELECTRIC CO., LTD. SEMICONDUCTOR DIVISION
15-13, 8-CHOME, SOTOKANDA, CHIYODA-KU, TOKYO 101 JAPAN







The application circuit diagrams and circuit constants herein are included as an example and provide no guarantee for designing equipment to be mass-produced.
 The information herein is believed to be accurate and reliable. However, no responsibility is assumed by SANYO for its use, nor for any infringements of patents or other rights of third parties which may result from its use.