

SANYO

SANYO Semiconductors

DATA SHEET

NPN Epitaxial Planar Type Silicon Transistor

2SC3925 — Differential Amp, Very High-Speed Switching Applications

Features

. The 2SC3925 is formed with two chips, being equivalent to the 2SC3775, placed in one package.

Absolute Maximum Ratings at Ta=25°C

			unit
Collector to Base Voltage	V_{CB0}	20	V
Collector to Emitter Voltage	V_{CE0}	12	V
Emitter to Base Voltage	V_{EB0}	3	V
Collector Current	I_C	100	mA
Base Current	I_B	30	mA
Collector Dissipation	P_C (1 unit)	250	mW
Junction Temperature	T_j	150	°C
Storage Temperature	T_{stg}	-55 to +150	°C

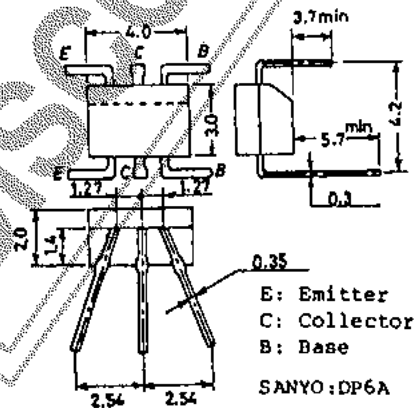
Electrical Characteristics at Ta=25°C

			min	typ	max	unit
Collector Cutoff Current	I_{CB0}	$V_{CB}=12V, I_E=0$			1.0	µA
Emitter Cutoff Current	I_{EB0}	$V_{EB}=2V, I_C=0$			10	µA
DC Current Gain	h_{FE}	$V_{CE}=10V, I_C=20mA$	40		200	
DC Current Gain Ratio	h_{FE1}/h_{FE2}	$V_{CE}=10V, I_C=20mA$ #1	0.8		1.0	
Base to Emitter Voltage Difference	ΔV_{BE}	$V_{CE}=10V, I_C=20mA$			10	mV
Gain-Bandwidth Product	f_T	$V_{CE}=10V, I_C=20mA$ #2		5.0		GHz
Output Capacitance	c_{ob}	$V_{CB}=10V, f=1MHz$ #2	0.9	1.5		pF

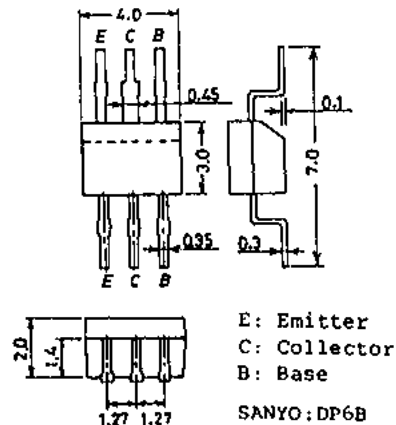
*1: The smaller h_{FE} is taken as h_{FE1} .

*2: Chips in the same lot are evaluated as the 2SC3775.

Case Outline 2029A
(unit:mm)



Case Outline 2030A
(unit:mm)



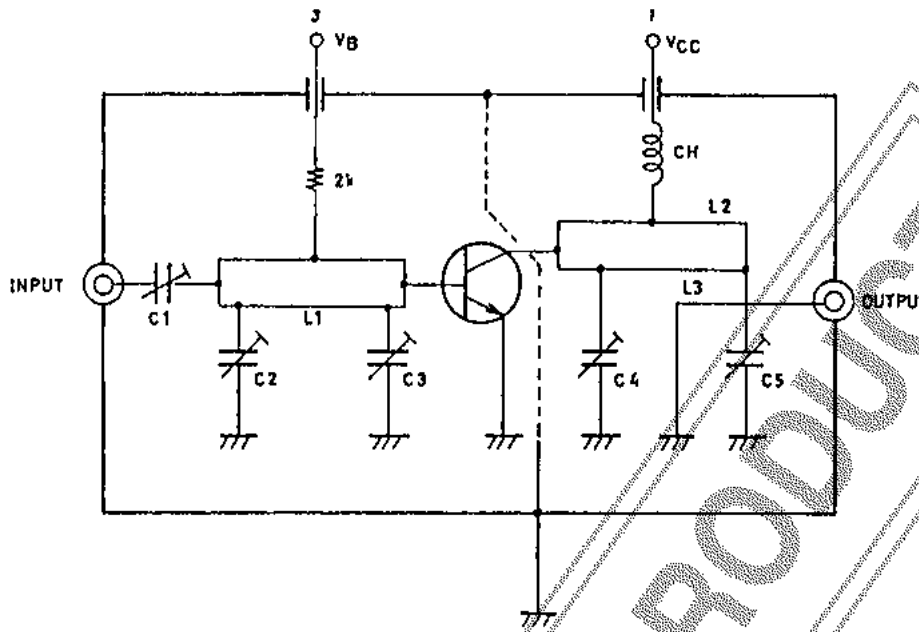
Specifications and information herein are subject to change without notice.

SANYO Electric Co., Ltd. Semiconductor Company

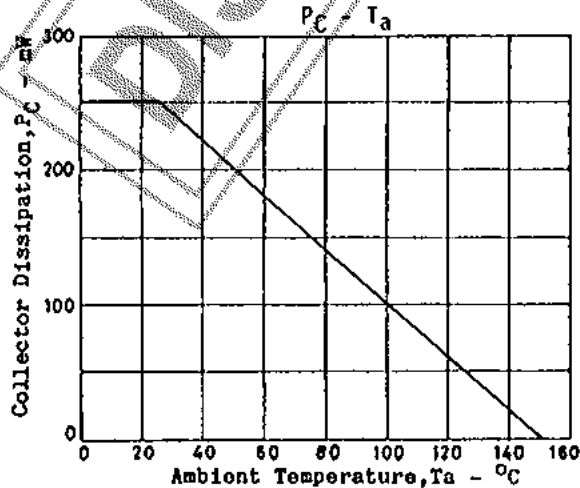
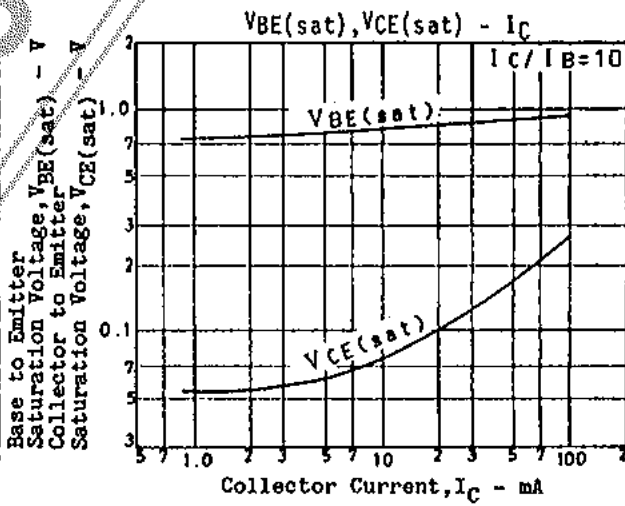
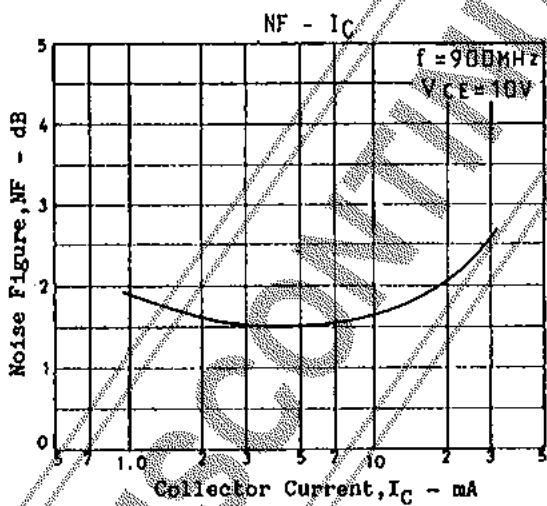
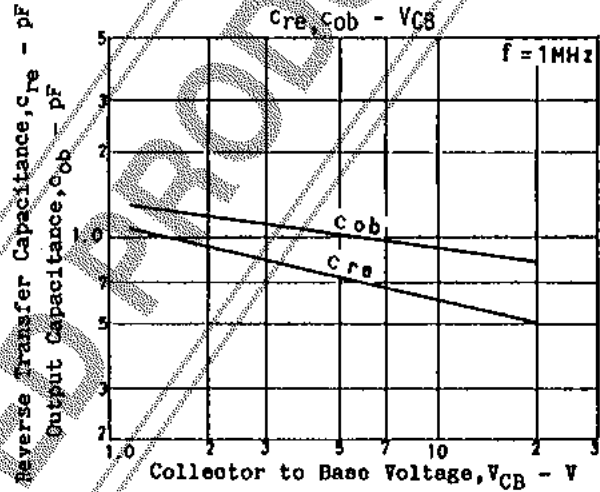
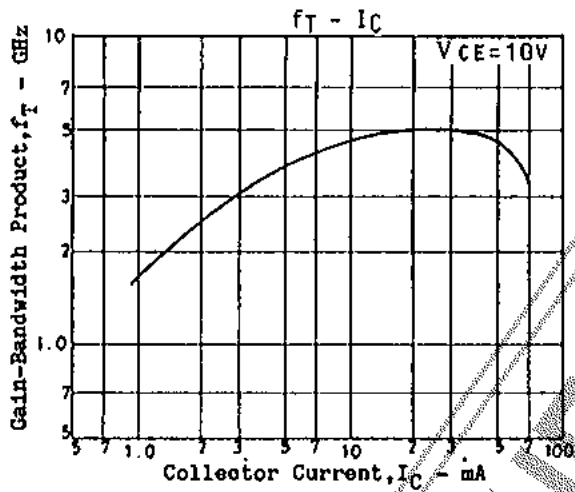
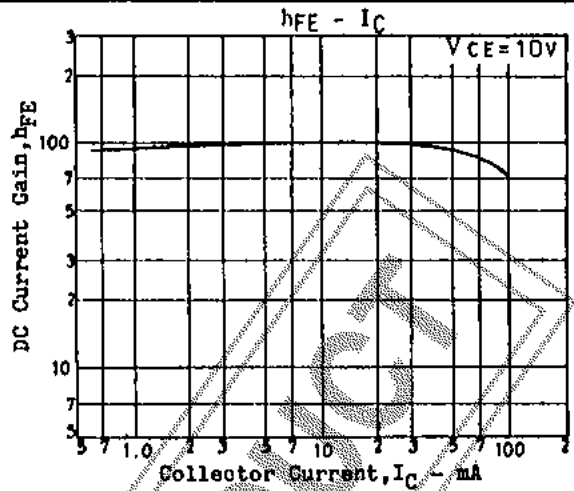
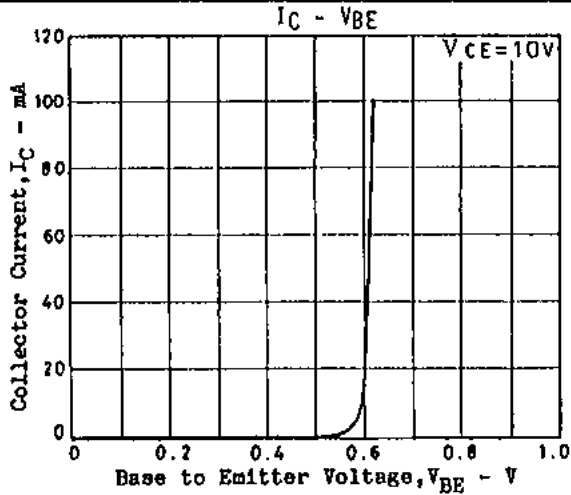
TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN

4207TA.TS No.2541-1/4

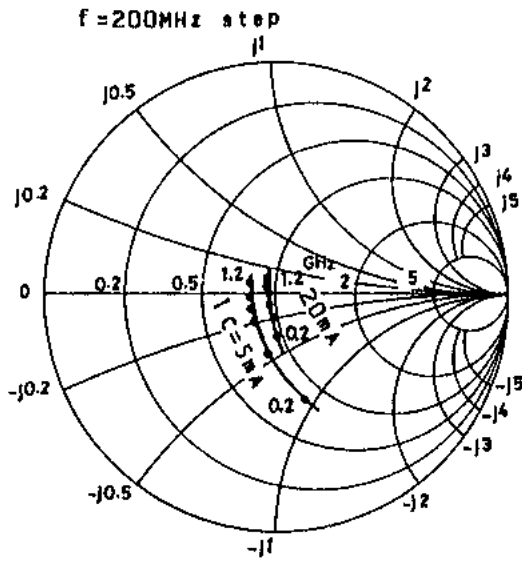
NF Test Circuit



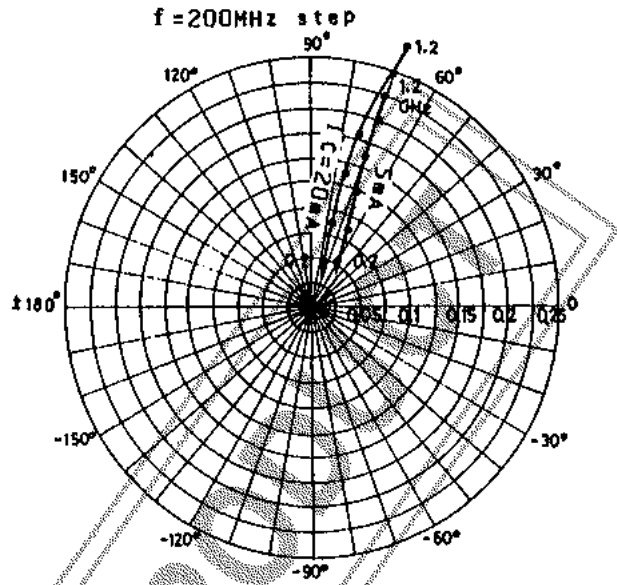
	900MHz
C1	~5 pF
C2	~10 pF
C3	~10 pF
C4	~1.0 pF
C5	~1.0 pF
L1	W \approx 1.5 mm, l \approx 2.5 mm Strip line
L2	W \approx 4 mm, l \approx 2.5 mm Strip line
L3	0.5 ϕ , l \approx 4.0 mm
CH	2t+bead core



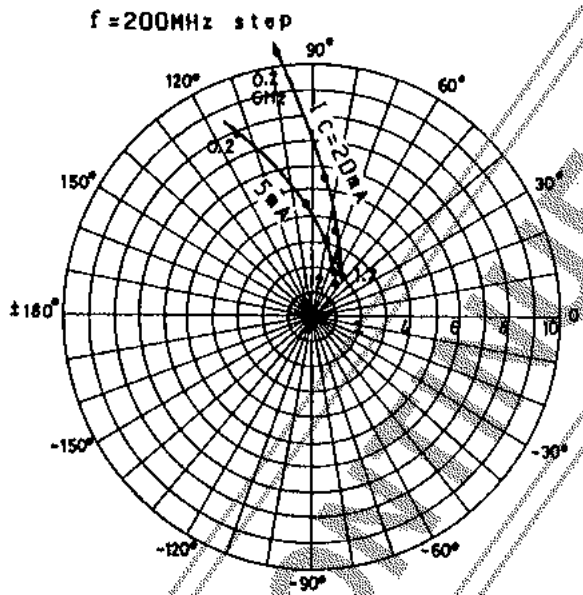
S11e: V_{CE}=10V



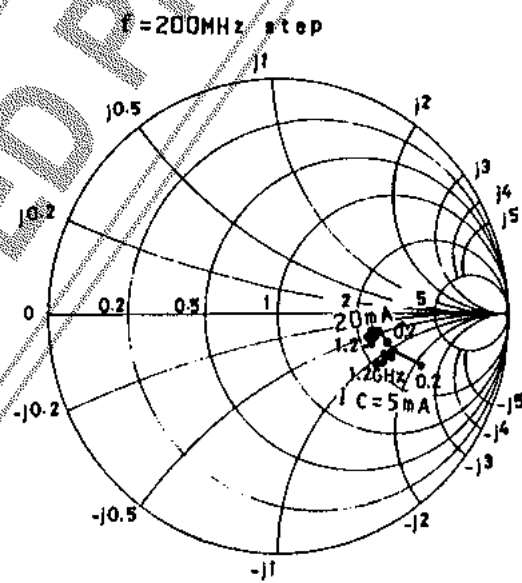
S12e: V_{CE}=10V



S21e: V_{CE}=10V



S22e: V_{CE}=10V



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.