

SANYO

No.2541

2SC3925

NPN Epitaxial Planar Type Silicon Transistor
 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 _{CEO}	12	V
Emitter to Base Voltage	V _{EBO}	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

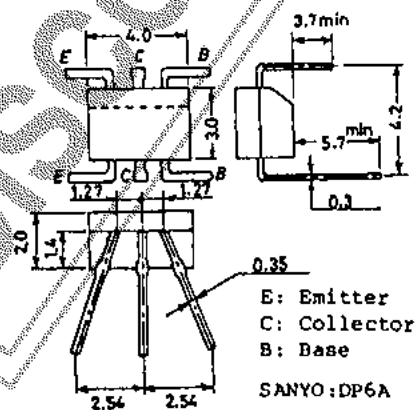
Electrical Characteristics at Ta=25°C

			min	typ	max	unit
Collector Cutoff Current	I _{CB0}	V _{CB} =12V, I _E =0			1.0	uA
Emitter Cutoff Current	I _{EBO}	V _{EB} =2V, I _C =0			10	uA
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

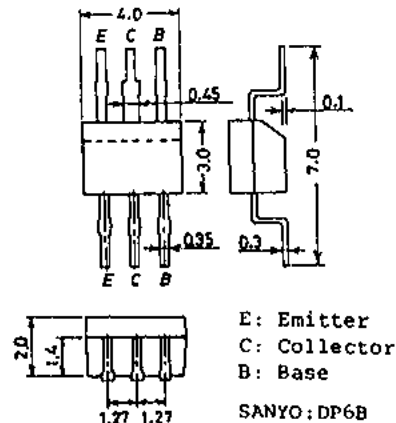
*1: The smaller h_{FE} is taken as h_{FE1}.

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

Case Outline 2029A
 (unit:mm)



Case Outline 2030A
 (unit:mm)

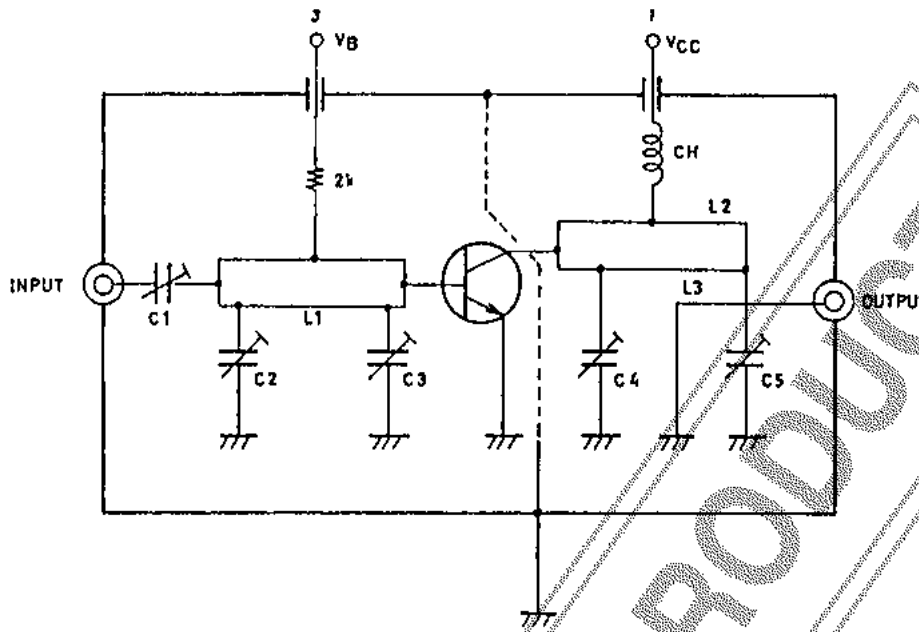


Specifications and information herein are subject to change without notice.

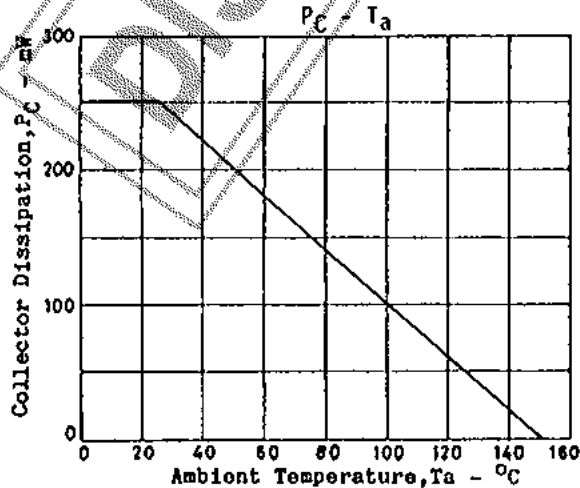
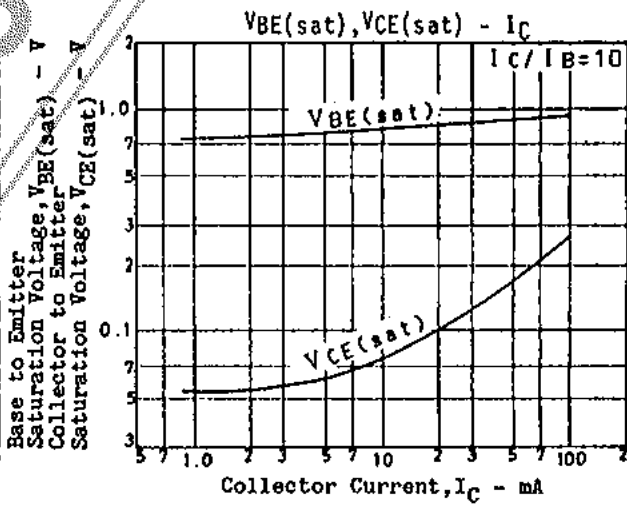
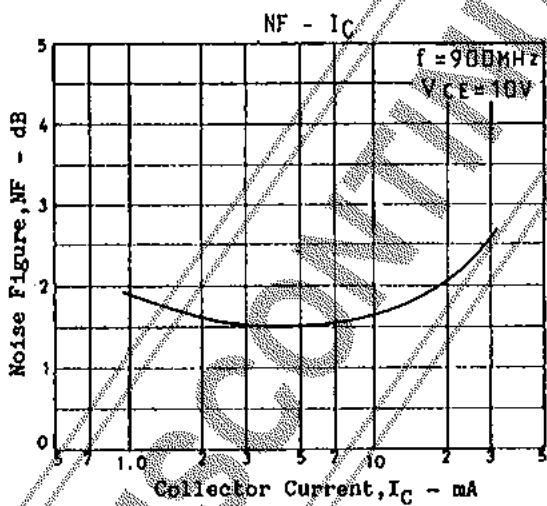
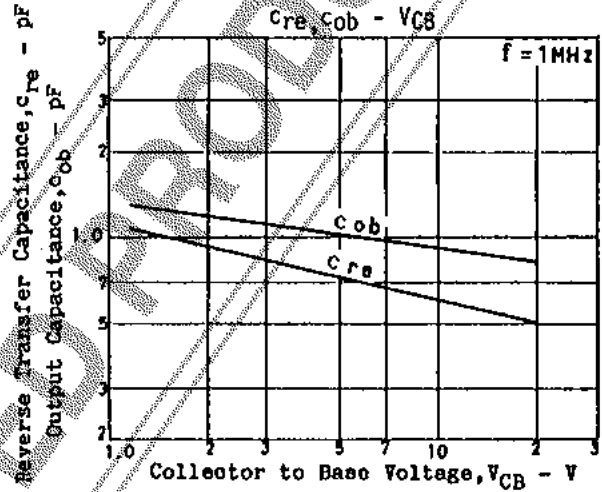
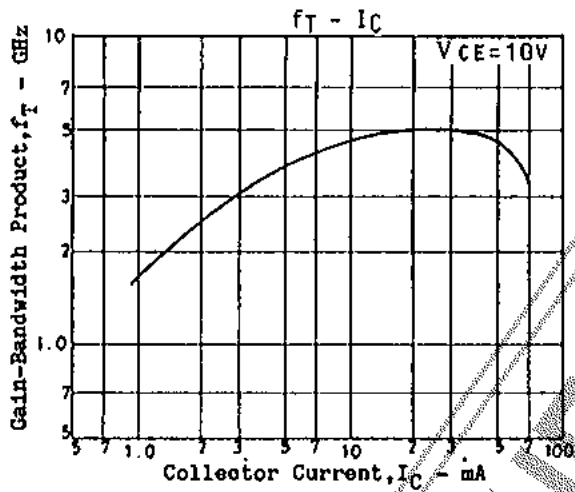
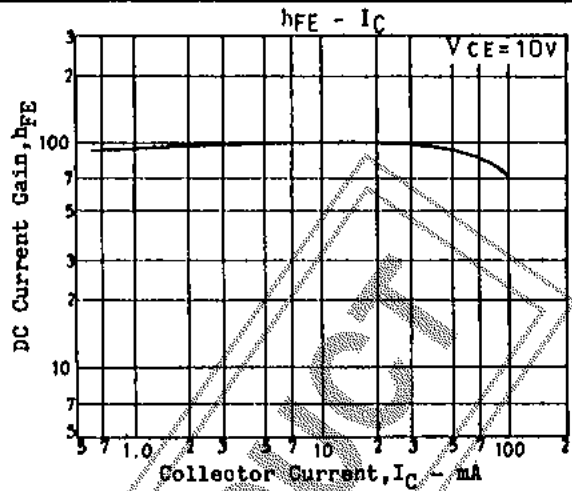
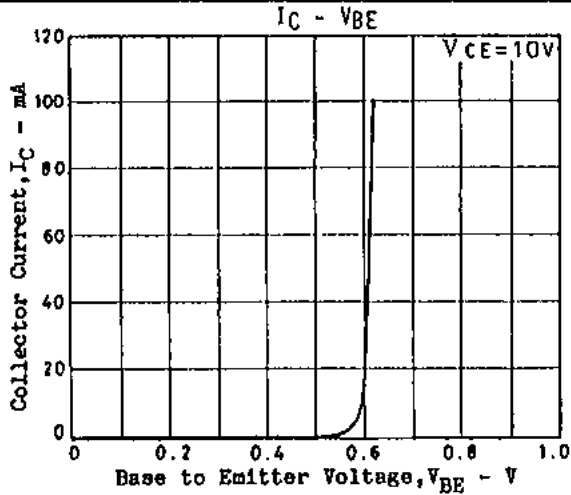
SANYO Electric Co., Ltd. Semiconductor Overseas Marketing Div.
 Natsume Bldg., 18-6, 2-chome, Yushima, Bunkyo-ku, TOKYO 113 JAPAN

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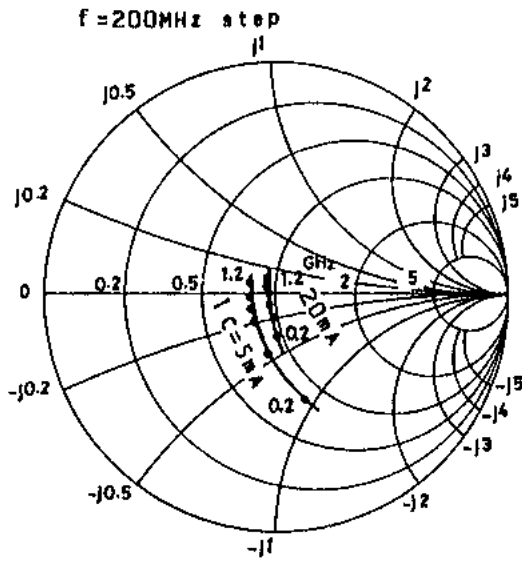
NF Test Circuit



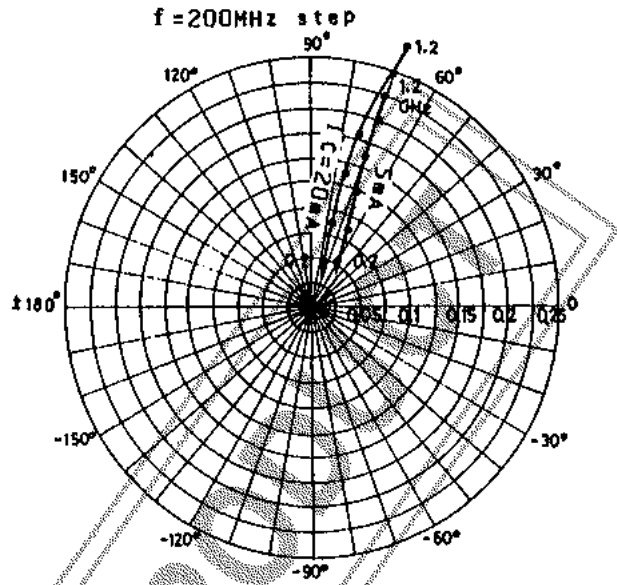
	900MHz
C1	~5 pF
C2	~10 pF
C3	~10 pF
C4	~1.0 pF
C5	~1.0 pF
L1	$W \neq 1.5 \text{ mm}, l \neq 2.5 \text{ mm}$ Strip line
L2	$W \neq 4 \text{ mm}, l \neq 2.5 \text{ mm}$ Strip line
L3	$0.5 \phi, l \neq 4.0 \text{ mm}$
CH	2t+bead core



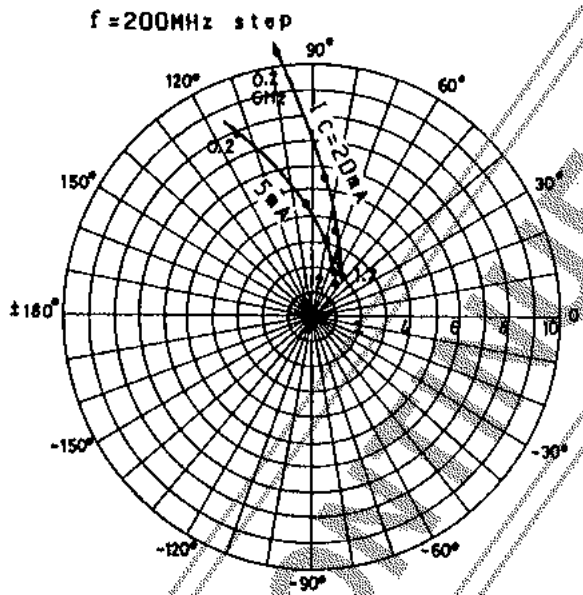
S11e: V_{CE}=10V



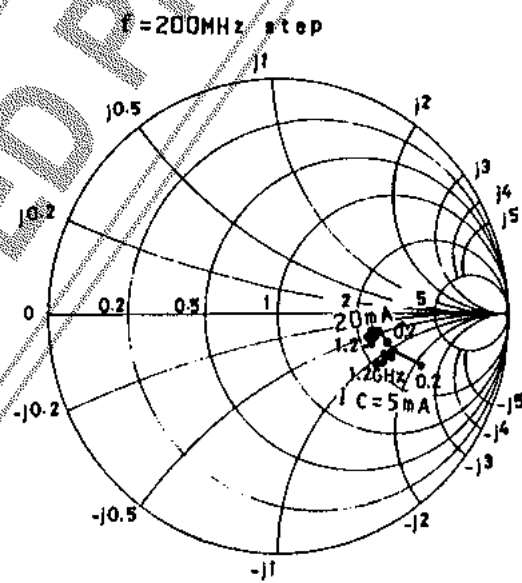
S12e: V_{CE}=10V



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.