

# 2SC4829

Silicon NPN Epitaxial

**HITACHI**

## Application

High frequency amplifier

## Features

- High frequency characteristics  
 $f_T = 1100$  MHz Typ
- High voltage and small output capacitance  
 $V_{CEO} = 100$  V,  $C_{ob} = 4.2$  pF Typ
- Suitable for wide band video amplifier

## Outline



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### Ordering Information

<b><math>h_{FE}</math></b>	
2SC4829B	60 to 120
2SC4829C	100 to 200

### Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Ratings	Unit
Collector to base voltage	$V_{CBO}$	100	V
Collector to emitter voltage	$V_{CEO}$	100	V
Emitter to base voltage	$V_{EBO}$	3	V
Collector current	$I_C$	0.2	A
Collector peak current	$i_{C(peak)}$	0.5	A
Collector power dissipation	$P_c$	0.9	W
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{stg}$	-55 to +150	°C

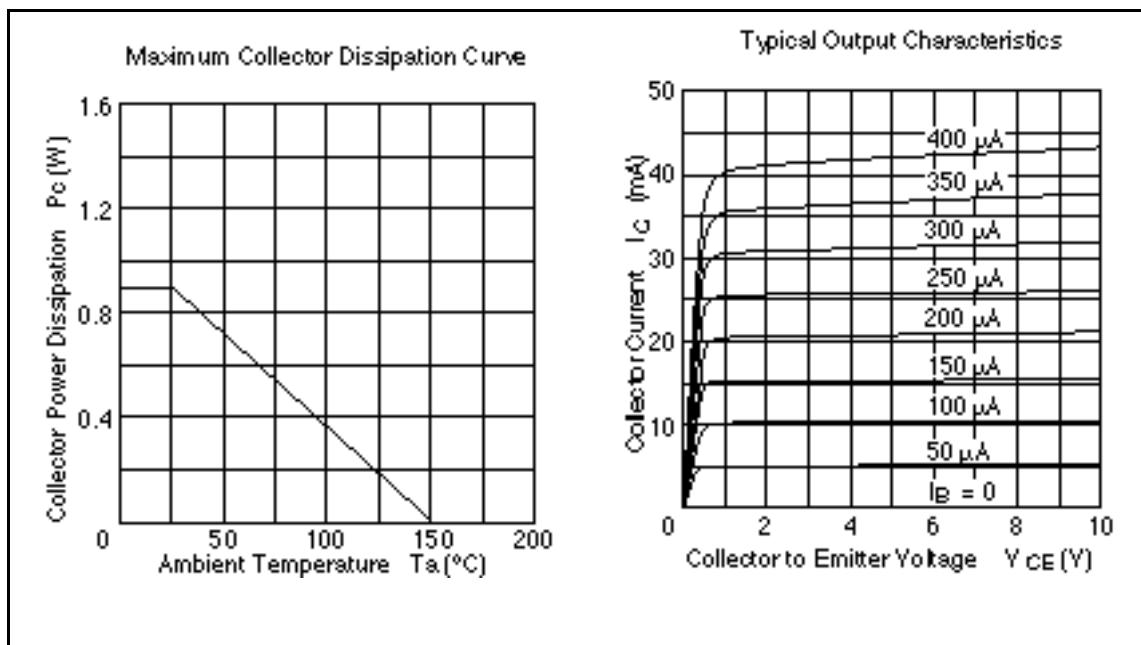
### Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	100	—	—	V	$I_C = 10 \mu A, I_E = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	100	—	—	V	$I_C = 1 \text{ mA}, R_{BE} =$
Emitter cutoff current	$I_{EBO}$	—	—	10	$\mu A$	$V_{EB} = 3 \text{ V}, I_C = 0$
Collector cutoff current	$I_{CBO}$	—	—	1.0	$\mu A$	$V_{CB} = 80 \text{ V}, I_E = 0$
DC current transfer ratio	2SC4829B	$h_{FE}$	60	—	120	$V_{CE} = 10 \text{ V}, I_C = 10 \text{ mA}$
	2SC4829C	$h_{FE}$	100	—	200	
Base to emitter voltage	$V_{BE}$	—	—	1.0	V	$V_{CE} = 10 \text{ V}, I_C = 10 \text{ mA}$
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	1.0	V	$I_C = 100 \text{ mA}, I_B = 10 \text{ mA}$
Gain bandwidth product	$f_T$	800	1100	—	MHz	$V_{CE} = 10 \text{ V}, I_E = 100 \text{ mA}$
Collector output capacitance	$C_{ob}$	—	4.2	6.0	pF	$V_{CB} = 30 \text{ V}, I_E = 0, f = 1 \text{ MHz}$

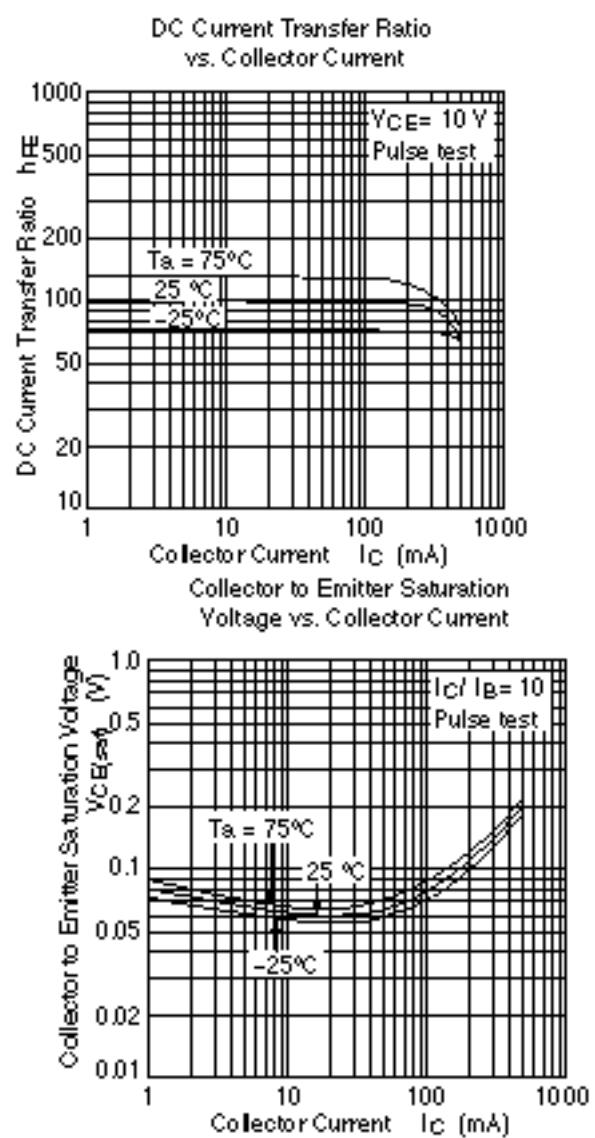
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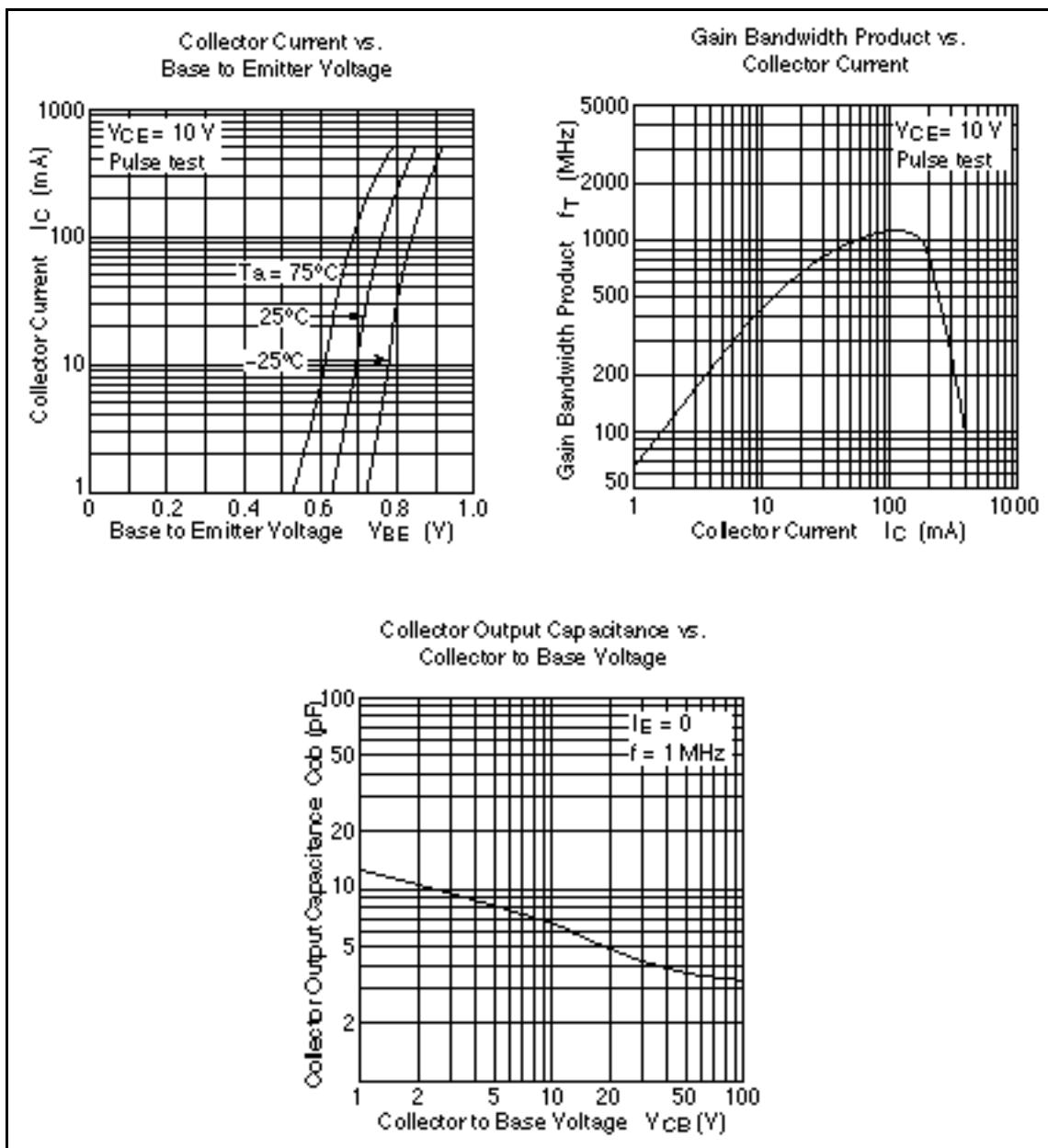
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# HITACHI

**Hitachi, Ltd.**

Semiconductor & IC Div.

Nippon Bldg, 2-6-2, Ome-machi, Chiyoda-ku, Tokyo 100, Japan

Tel Tokyo (03) 3270-2111

Fax (03) 3270-5109

For further information write to:

Hitachi America, Ltd.

Semiconductor & IC Div.

2000 Sierra Point Parkway

Brisbane, CA 94005-4835

U.S.A.

Tel 415-533-8300

Fax 415-533-4207

Hitachi Europe GmbH

Electronic Components Group

Continental Europe

Dornacher Straße 3

D-85622 Fildkirchen

München

Tel 089-9 91 80-0

Fax 089-9 29 30 00

Hitachi Europe Ltd.

Electronic Components Div.

Northern Europe Headquarters

Whitebrook Park

Lower Cookham Road

Maidenhead

Berkshire SL6 8SY, U.K.

United Kingdom

Tel 0628-585000

Fax 0628-778322

Hitachi Asia Pte. Ltd.

16 Collyer Quay #20-00

Hitachi Tower

Singapore 0104

Tel 535-2100

Fax 535-1533

Hitachi Asia (Hong Kong) Ltd.

Unit 705, North Tower,

World Finance Centre

Harbour City, Canton Road

Tsim Sha Tsui, Kowloon

Hong Kong

Tel 27359218

Fax 27306074