
2SC5237

Silicon NPN Epitaxial

HITACHI

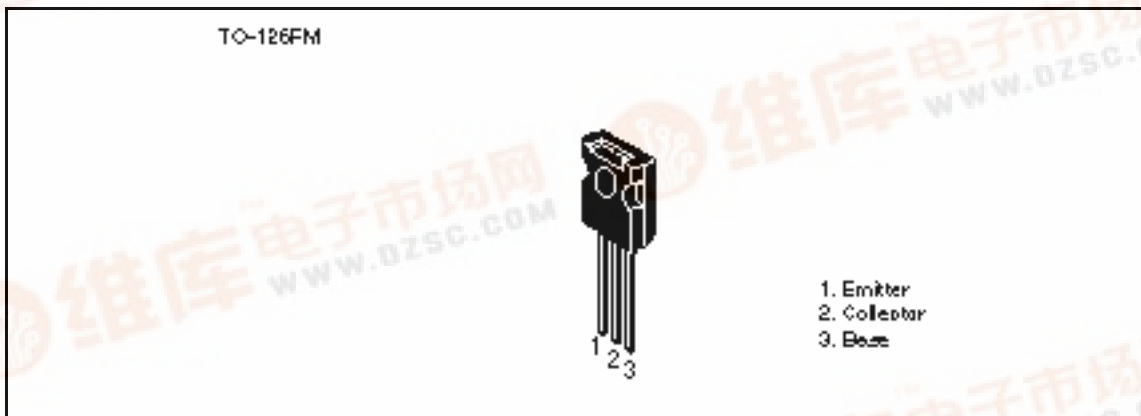
Application

High frequency amplifier

Features

- Excellent high frequency characteristics
 $f_T = 400$ MHz typ
- High voltage and low output capacitance
 $V_{CEO} = 250$ V, $C_{ob} = 3.5$ pF typ
- Suitable for wide band video amplifier

Outline



2SC5237

Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	250	V
Collector to emitter voltage	V_{CEO}	250	V
Emitter to base voltage	V_{EBO}	3	V
Collector current	I_C	150	mA
Collector peak current	$I_{C(peak)}$	300	mA
Collector power dissipation	P_C	1.4 8*1	W
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	−55 to +150	°C

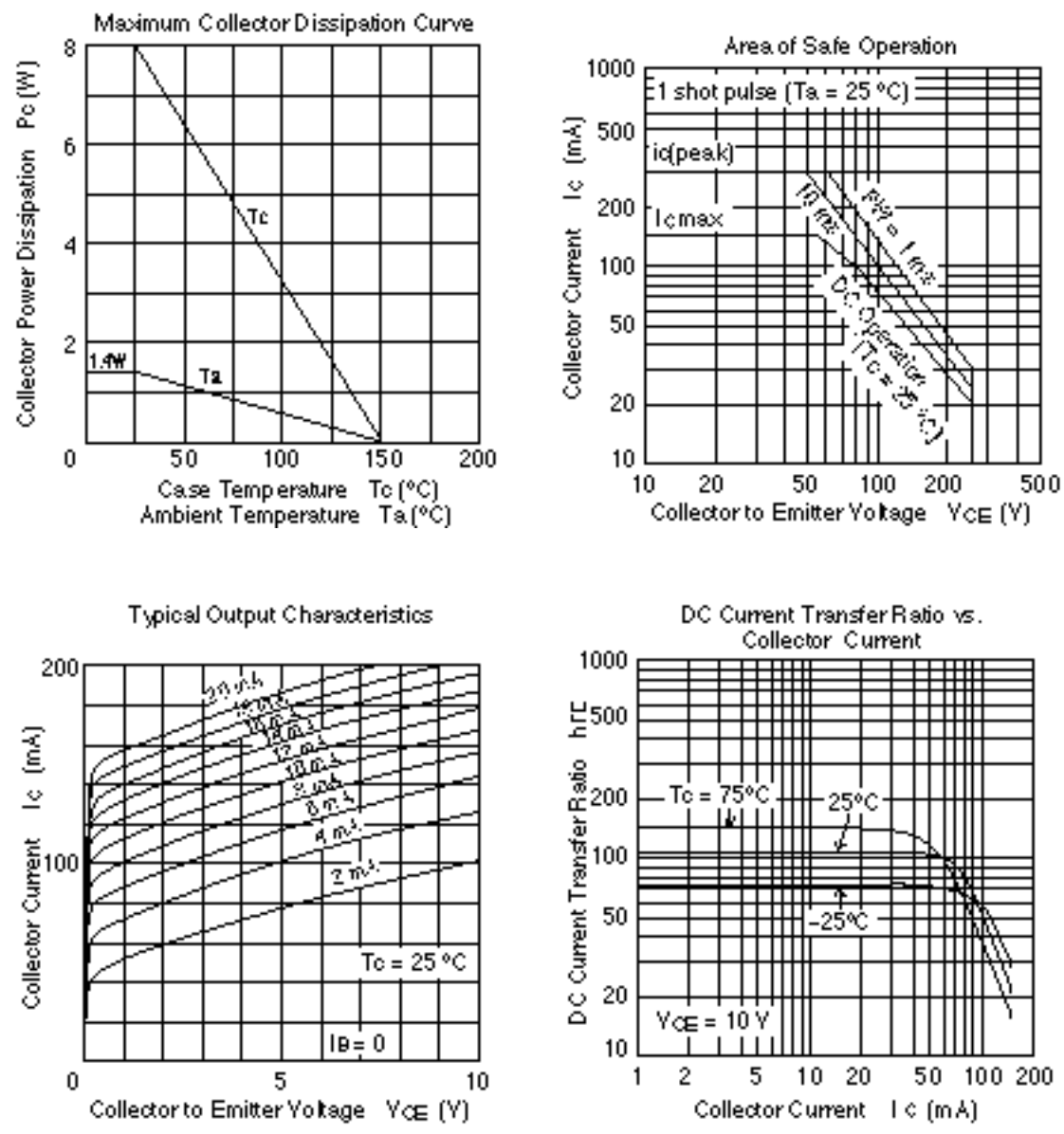
Note: 1. $T_C = 25^\circ\text{C}$

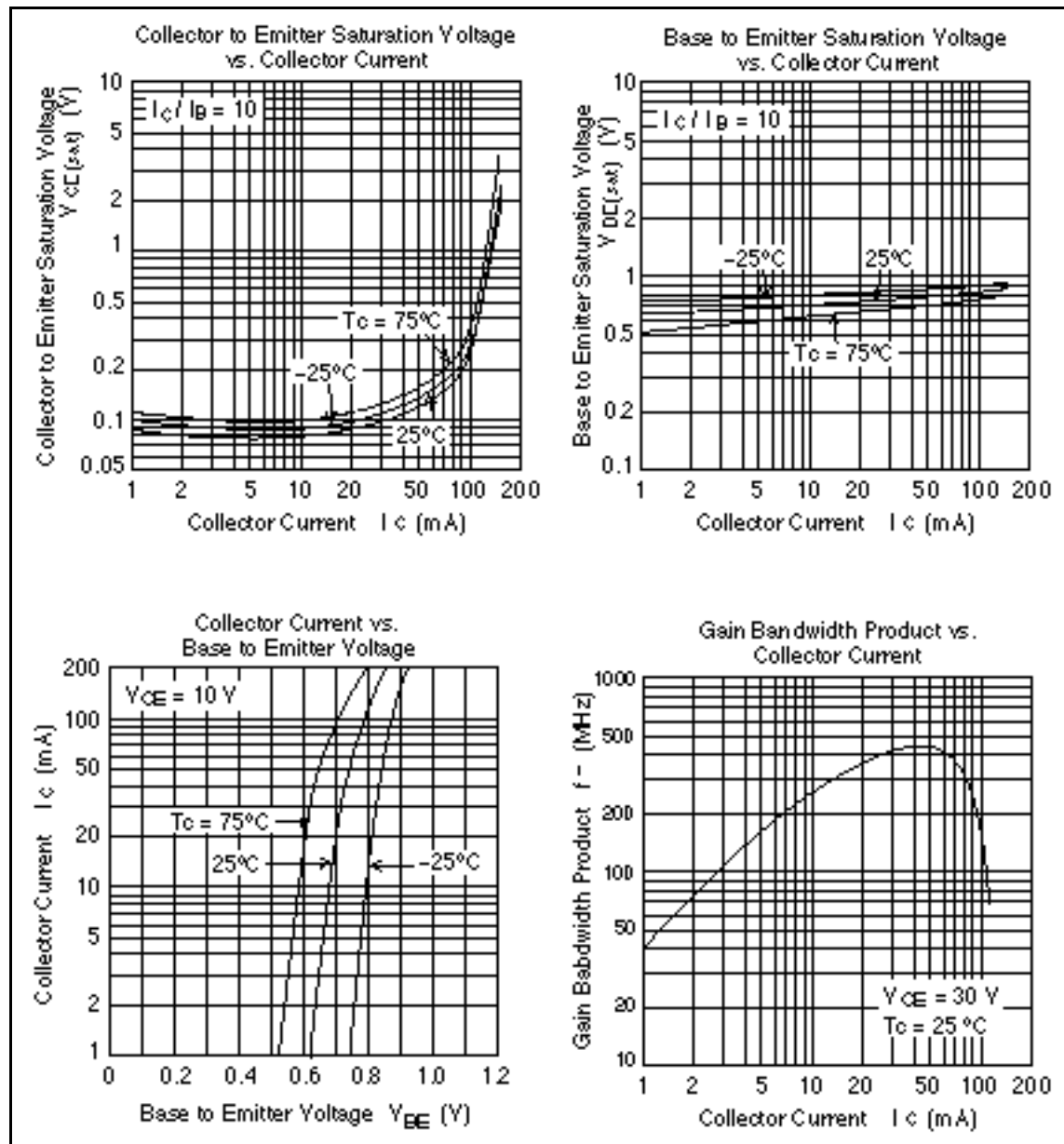
Electrical Characteristics (Ta = 25°C)

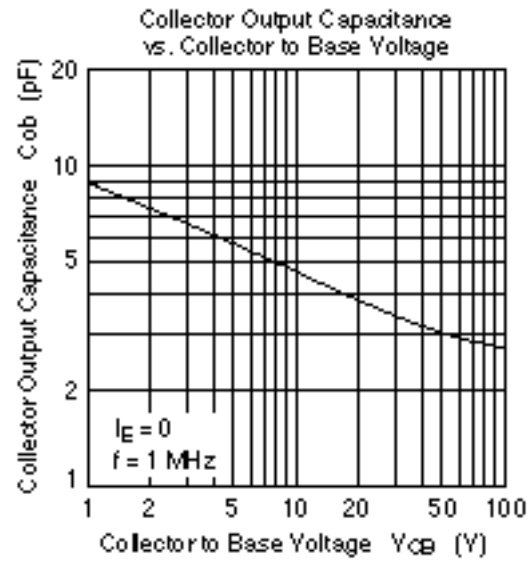
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	250	—	—	V	$I_C = 10\ \mu\text{A}$, $I_E = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	250	—	—	V	$I_C = 1\ \text{mA}$, $R_{BE} =$
Collector cutoff current	I_{CBO}	—	—	1.0	μA	$V_{CB} = 200\ \text{V}$, $I_E = 0$
Emitter cutoff current	I_{EBO}	—	—	10	μA	$V_{EB} = 3\ \text{V}$, $I_C = 0$
DC current transfer ratio	h_{FE}^{*1}	60	—	200	—	$V_{CE} = 10\ \text{V}$, $I_C = 10\ \text{mA}$
Base to emitter voltage	V_{BE}	—	—	1.0	V	$V_{CE} = 10\ \text{V}$, $I_C = 50\ \text{mA}$
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	1.0	V	$I_C = 50\ \text{mA}$, $I_B = 5\ \text{mA}$
Gain bandwidth product	f_T	300	400	—	MHz	$V_{CE} = 30\ \text{V}$, $I_C = 50\ \text{mA}$
Collector output capacitance	C_{ob}	—	3.5	5.0	pF	$V_{CB} = 30\ \text{V}$, $I_E = 0$, $f = 1\ \text{MHz}$

Note: 1. The 2SC5237 is grouped by h_{FE} and its specification is as follows.

B	C
60 to 120	100 to 200







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HITACHI

Hitachi, Ltd.

Semiconductor & IC Div.

Nippon Bldg., 2-6-2, Ohite-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 415-589-8300

Fax 415-583-4207

Hitachi Europe GmbH

Electronic Components Group

Continental Europe

Danrecher Straße 3

D-85622 Feldkirchen

München

Tel 089-9 94 80-0

Fax 089-9 29 30 00

Hitachi Europe Ltd.

Electronic Components Div.

Northern Europe Headquarters

Whitbrook Park

Lower Cookham Road

M Maidenhead

Berkshire SL6 8YA

United Kingdom

Tel 0628-585000

Fax 0628-778322

Hitachi Asia Pte. Ltd.

45 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 27352218

Fax 27308074