
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

TO-126FM



1. Emitter
2. Collector
3. Base

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

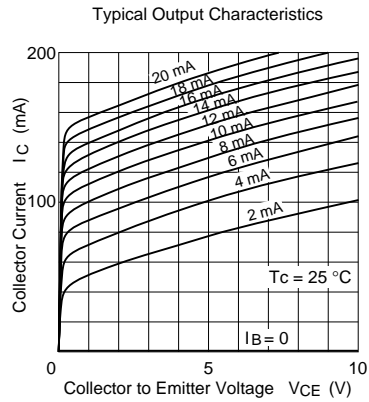
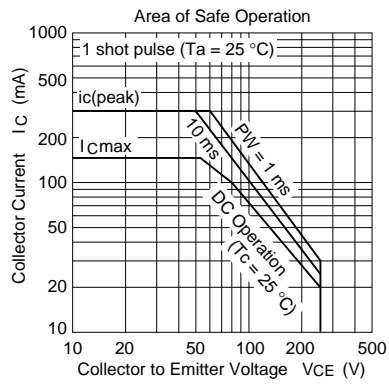
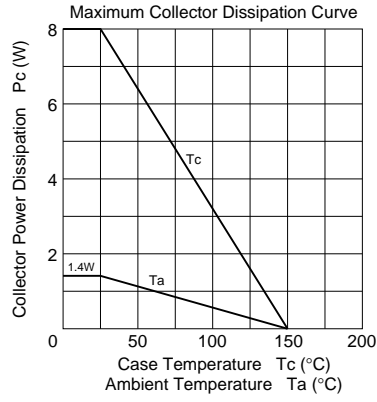
Note: 1. $T_C = 25^\circ\text{C}$

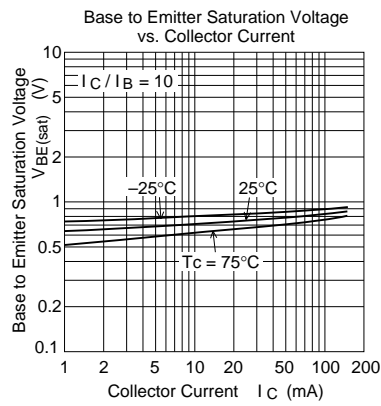
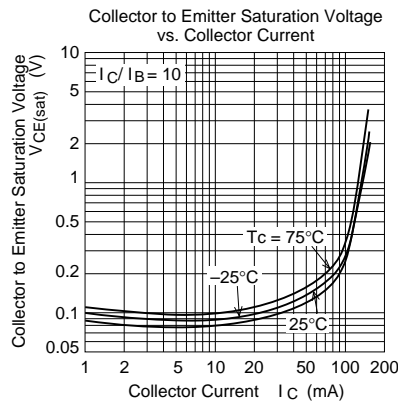
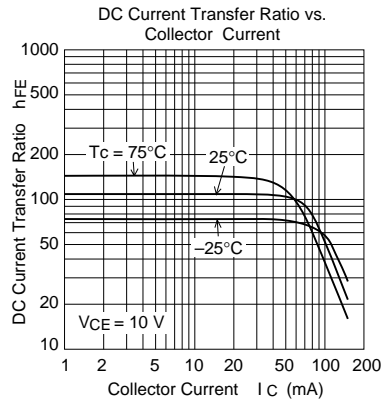
Electrical Characteristics (Ta = 25°C)

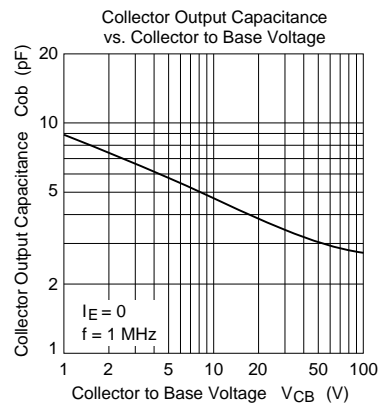
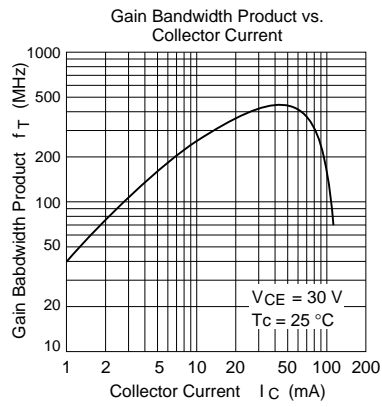
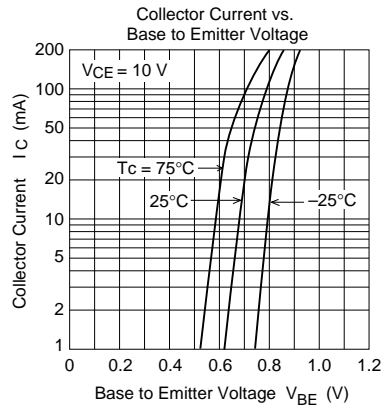
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	250	—	—	V	$I_C = 10 \mu\text{A}$, $I_E = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	250	—	—	V	$I_C = 1 \text{ mA}$, $R_{BE} = \infty$
Collector cutoff current	I_{CBO}	—	—	1.0	μA	$V_{CB} = 200 \text{ V}$, $I_E = 0$
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 2SC2537 is grouped by h_{FE} and its specification is as follows.

B	C
60 to 120	100 to 200







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