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# 2SC5237

Silicon NPN Epitaxial

## HITACHI

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### 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

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## 2SC5237

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### 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	W
		$8^{*1}$	
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{stg}$	-55 to +150	°C

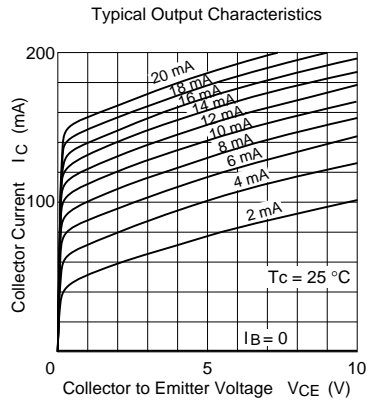
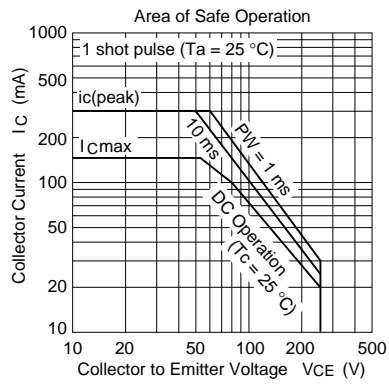
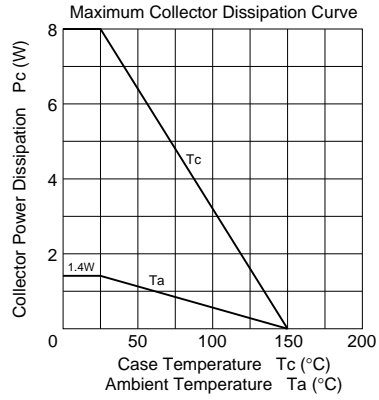
Note: 1.  $T_C = 25^\circ\text{C}$

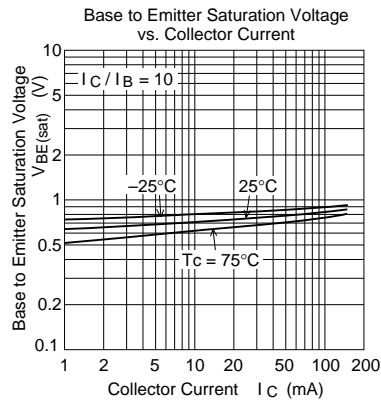
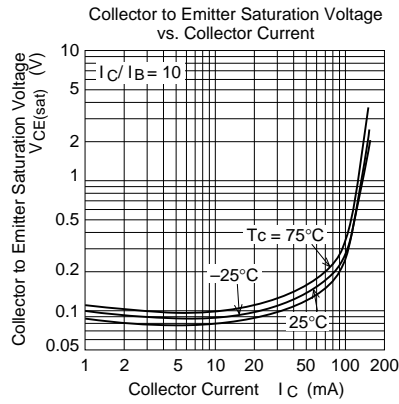
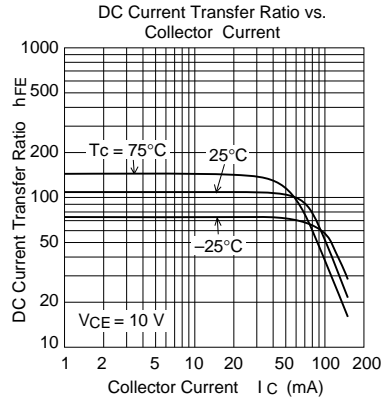
### Electrical Characteristics (Ta = 25°C)

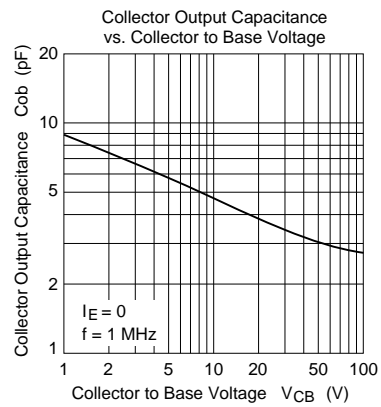
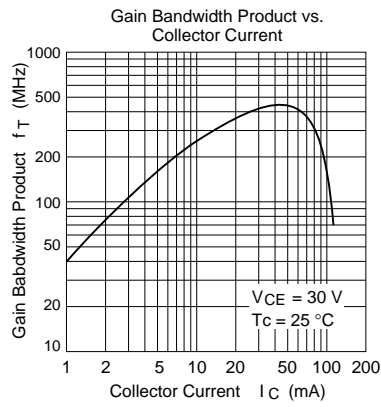
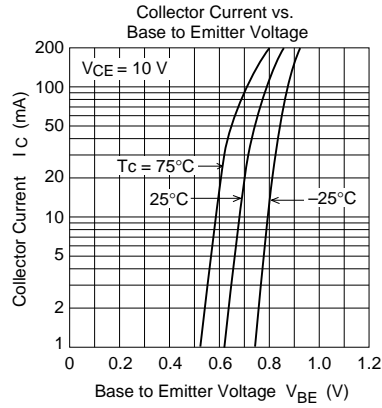
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	250	—	—	V	$I_C = 10 \mu\text{A}$ , $I_E = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	250	—	—	V	$I_C = 1 \text{ mA}$ , $R_{BE} = \infty$
Collector cutoff current	$I_{CBO}$	—	—	1.0	$\mu\text{A}$	$V_{CB} = 200 \text{ V}$ , $I_E = 0$
Emitter cutoff current	$I_{EBO}$	—	—	10	$\mu\text{A}$	$V_{EB} = 3 \text{ V}$ , $I_C = 0$
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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