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# 2SA1889

Silicon PNP Epitaxial

# HITACHI

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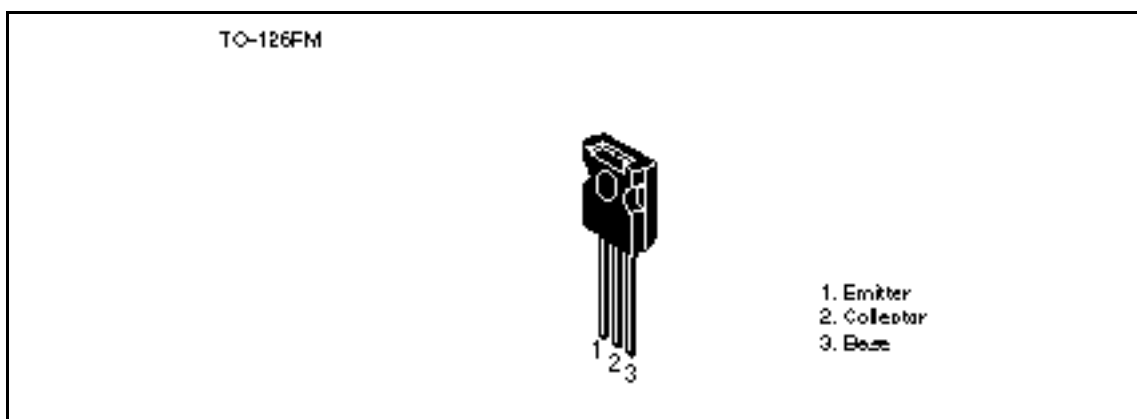
## Application

High frequency amplifier

## Features

- Excellent high frequency characteristics  
 $f_T = 300$  MHz typ
- High voltage and low output capacitance  
 $V_{CEO} = -200$  V,  $C_{ob} = 5.0$  pF typ
- Suitable for wide band video amplifier
- Complimentary pair of 2SC5024

## Outline



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## 2SA1889

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

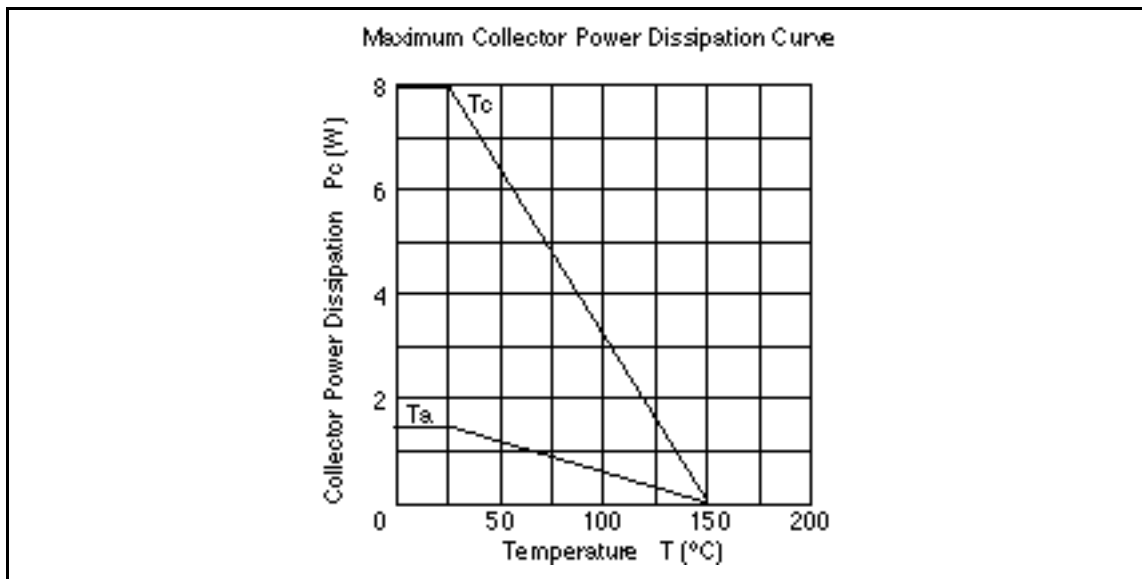
Item	Symbol	Ratings	Unit
Collector to base voltage	$V_{CBO}$	-200	V
Collector to emitter voltage	$V_{CEO}$	-200	V
Emitter to base voltage	$V_{EBO}$	-4	V
Collector current	$I_C$	-0.2	A
Collector peak current	$I_{C(peak)}$	-0.5	A
Collector power dissipation	$P_C$	1.4	W
Collector power dissipation	$P_C^{*1}$	8	W
Junction temperature	Tj	150	°C
Storage temperature	Tstg	-55 to +150	°C

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

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

Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	-200	—	—	V	$I_C = -10 \mu\text{A}$ , $I_E = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	-200	—	—	V	$I_C = -1 \text{ mA}$ , $R_{BE} =$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	-4	—	—	V	$I_E = -10 \mu\text{A}$ , $I_C = 0$
Collector cutoff current	$I_{CBO}$	—	—	-10	$\mu\text{A}$	$V_{CB} = -160 \text{ V}$ , $I_E = 0$
DC current transfer ratio	2SA1889B $h_{FE}$	60	—	120		$V_{CE} = -5 \text{ V}$ , $I_C = -10 \text{ mA}$
	2SA1889C $h_{FE}$	100	—	200		
Base to emitter voltage	$V_{BE}$	—	—	-1.0	V	$V_{CE} = -5 \text{ V}$ , $I_C = -30 \text{ mA}$
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	-1.0	V	$I_C = -30 \text{ mA}$ , $I_B = -3 \text{ mA}$
Gain bandwidth product	$f_T$	200	300	—	MHz	$V_{CE} = -20 \text{ V}$ , $I_C = -30 \text{ mA}$
Collector output capacitance	Cob	—	5.0	—	pF	$V_{CB} = -30 \text{ V}$ , $I_E = 0$ , $f = 1 \text{ MHz}$

See characteristic curves of 2SA1810.



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