2SC4260

Silicon NPN Epitaxial

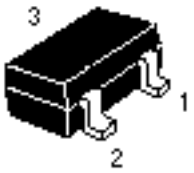
HITACHI

Application

UHF frequency converter, Wide band amplifier

Outline

CMPAK



1. Emitter
2. Base
3. Collector

Hitachi semiconductor

Absolute Maximum Ratings (Ta = 25°C)

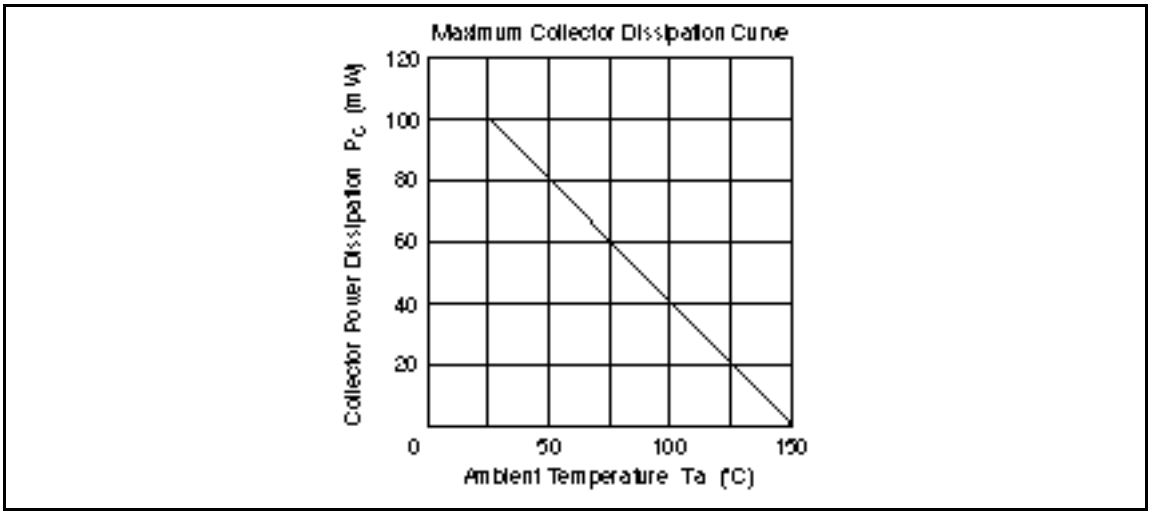
Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	25	V
Collector to emitter voltage	V_{CEO}	13	V
Emitter to base voltage	V_{EBO}	3	V
Collector current	I_C	50	mA
Collector power dissipation	P_C	100	mW
Junction temperature	Tj	150	°C
Storage temperature	Tstg	–55 to +150	°C

Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	25	—	—	V	I_C = 10 µA, I_E = 0
Collector cutoff current	I_{CBO}	—	—	0.1	µA	V_{CB} = 15 V, I_E = 0
	I_{CEO}	—	—	10	µA	V_{CE} = 13 V, R_{BE} = ∞
Emitter cutoff current	I_{EBO}	—	—	0.3	µA	V_{EB} = 3 V, I_C = 0
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	0.3	V	I_C = 20 mA, I_B = 4 mA
DC current transfer ratio	h_{FE}	50	—	180		V_{CE} = 5 V, I_C = 5 mA
Collector output capacitance	Cob	—	0.85	1.3	pF	V_{CB} = 10 V, I_E = 0, f = 1MHz
Gain bandwidth product	f_T	3.0	3.8	—	GHz	V_{CE} = 5 V, I_C = 5 mA
Conversion gain	CG	—	19	—	dB	V_{CC} = 5 V, I_C = 0.8 mA, f = 900 MHz
Noise figure	NF	—	8	—	dB	f_{OSC} = 930 MHz (–5dBm), f_{out} = 30 MHz

Note: Marking is “TI–”.

See characteristic curves of 2SC4197.


Maximum Collector Dissipation Curve
Collector Power Dissipation Pc (mW)
120
100
80
60
40
20
0
50
100
150
Ambient Temperature Ta (°C)

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