2SC5051

Silicon NPN Epitaxial

HITACHI

Application

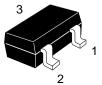
VHF / UHF wide band amplifier

Features

- High gain bandwidth product $f_T = 11 \text{ GHz Typ}$
- High gain, low noise figure PG = 14.5 dB Typ, NF = 1.1 dB Typ at f = 900 MHz

Outline

CMPAK



- 1. Emitter
- 2. Base
- 3. Collector



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Absolute Maximum Ratings ($Ta = 25^{\circ}C$)

Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	15	V
Collector to emitter voltage	V_{CEO}	8	V
Emitter to base voltage	V_{EBO}	1.5	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 ($Ta = 25^{\circ}C$)

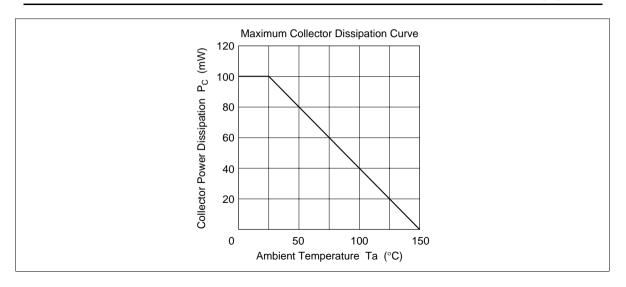
Item	Symbol	Min	Тур	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	15	_	_	V	$I_{c} = 10 \ \mu A, \ I_{E} = 0$
Collector cutoff current	I _{CBO}	_	_	10	μΑ	V _{CB} = 12 V, I _E = 0
	I _{CEO}	_	_	1	mA	V _{CE} = 8 V, R _{BE} = ∞
Emitter cutoff current	I _{EBO}	_	_	10	μΑ	$V_{EB} = 1.5 \text{ V}, I_{C} = 0$
DC current transfer ratio	h_{FE}	50	120	250		$V_{CE} = 5 \text{ V}, I_{C} = 20 \text{ mA}$
Collector output capacitance	Cob	_	0.65	1.15	pF	$V_{CB} = 5 \text{ V}, I_{E} = 0, f = 1 \text{ MHz}$
Gain bandwidth product	f _T	8.0	11.0	_	GHz	$V_{CE} = 5 \text{ V}, I_{C} = 20 \text{ mA}$
S21 Parameter	S21	_	14.0	_	dB	$V_{CE} = 5 \text{ V}, I_{C} = 20 \text{ mA},$ f = 1000 MHz
Power gain	PG	11.5	14.5	_	dB	$V_{CE} = 5 \text{ V}, I_{C} = 20 \text{ mA},$ f = 900 MHz
Noise figure	NF	_	1.1	2.0	dB	$V_{CE} = 5 \text{ V}, I_{C} = 5 \text{ mA},$ f = 900 MHz

Note: Marking is "YZ-".

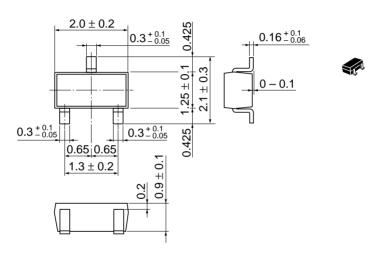
Attention: This device is very sensitive to electro static discharge.

It is recommended to adopt appropriate cautions when handling this transistor.

See characteristic curves of 2SC4926.



Unit: mm



Hitachi Code	CMPAK
JEDEC	
EIAJ	Conforms
Weight (reference value)	0.006 g

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