
2SC3338

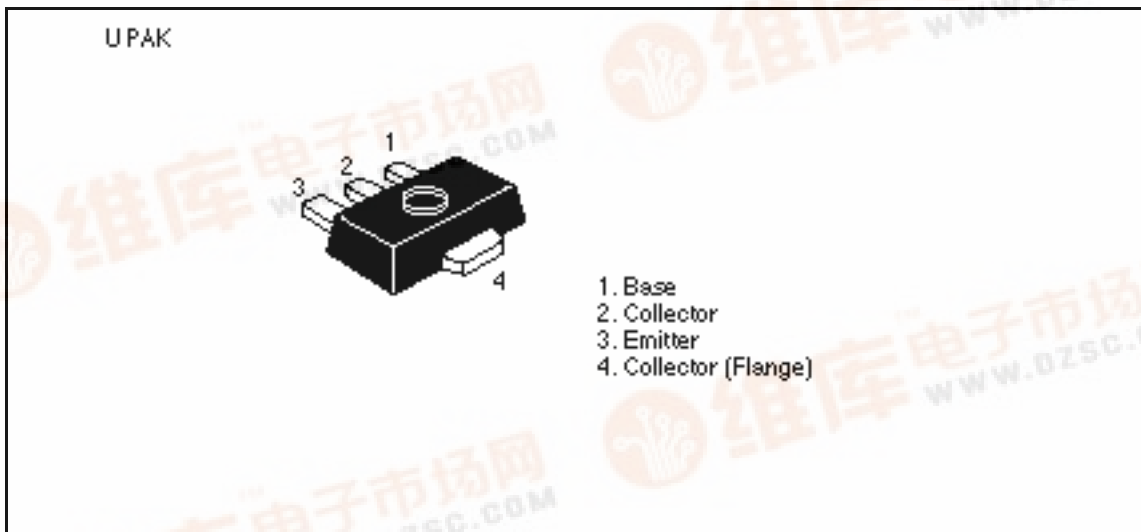
Silicon NPN Epitaxial

HITACHI

Application

UHF / VHF wide band amplifier

Outline



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Absolute Maximum Ratings (Ta = 25°C)

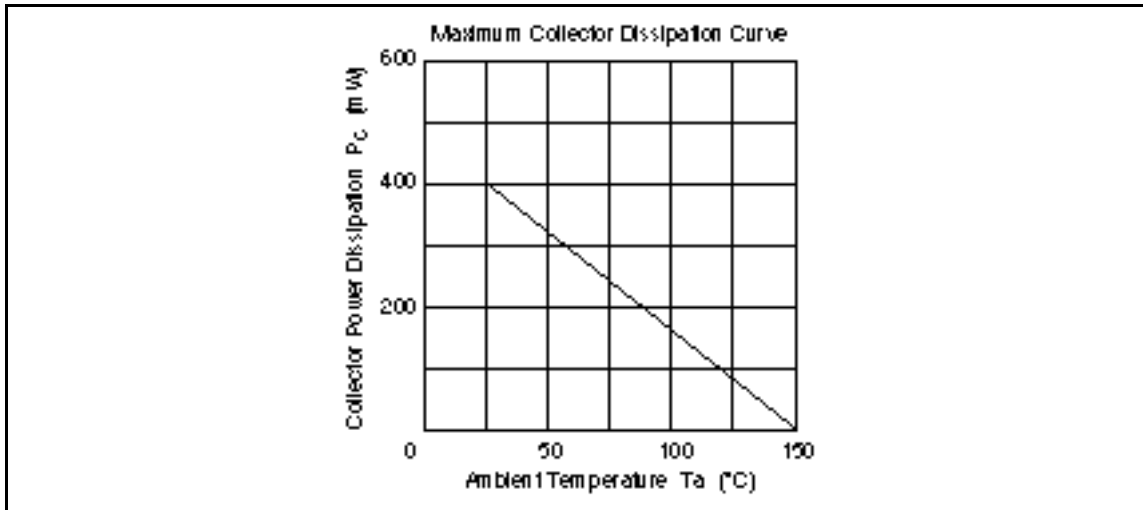
Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	20	V
Collector to emitter voltage	V_{CEO}	12	V
Emitter to base voltage	V_{EBO}	3	V
Collector current	I_C	50	mA
Collector power dissipation	P_C	400	mW
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 to +150	°C

Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	20	—	—	V	$I_C = 10 \mu A, I_E = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	12	—	—	V	$I_C = 1 \text{ mA}, R_{BE} =$
Emitter cutoff current	I_{EBO}	—	—	10	μA	$V_{EB} = 3 \text{ V}, I_C = 0$
Collector cutoff current	I_{CBO}	—	—	0.5	μA	$V_{CB} = 15 \text{ V}, I_C = 0$
DC current transfer ratio	h_{FE}	30	90	200		$V_{CE} = 5 \text{ V}, I_C = 20 \text{ mA}$
Collector output capacitance	C_{ob}	—	1.0	1.5	pF	$V_{CB} = 5 \text{ V}, I_E = 0, f = 1 \text{ MHz}$
Gain bandwidth product	f_T	3.5	4.5	—	GHz	$V_{CE} = 5 \text{ V}, I_C = 20 \text{ mA}$
Power gain	PG	—	8.2	—	dB	$V_{CE} = 5 \text{ V}, I_C = 20 \text{ mA}, f = 900 \text{ MHz}$
Noise figure	NF	—	2.0	—	dB	$V_{CE} = 5 \text{ V}, I_C = 5 \text{ mA}, f = 900 \text{ MHz}$

Note: Marking is "AR".

See characteristic curves of 2SC3127.



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HITACHI

Hitachi, Ltd.

Semiconductor & IC Div.
Nippon Bldg., 2-6-2, Ohite-machi, Chiyoda-ku, Tokyo 100, Japan
Tel Tokyo (03) 3270-2111
Fax (03) 3270-5109

For further information write to:

Hitachi America, Ltd.
Semiconductor & IC Div.
2000 Sierra Point Parkway
Brisbane, CA. 94005-4835
U.S.A.
Tel 415-589-8300
Fax 415-589-4207

Hitachi Europe GmbH
Electronic Components Group
Continental Europe
Dornacher StraÙe 3
D-85622 Feldkirchen
München
Tel 089-9 94 80 0
Fax 089-9 29 30 00

Hitachi Europe Ltd.
Electronic Components Div.
Northern Europe Headquarters
Whitbrook Park
Lower Cookham Road
M Maidenhead
Berkshire SL6 8YA
United Kingdom
Tel 0628-885000
Fax 0628-778322

Hitachi Asia Pte. Ltd.
45 Collyer Quay #20-00
Hitachi Tower
Singapore 0104
Tel 535-2100
Fax 535-1533

Hitachi Asia (Hong Kong) Ltd.
Unit 705, North Tower,
World Finance Centre
Harbour City, Canton Road
Tsim Sha Tsui, Kowloon
Hong Kong
Tel 27359218
Fax 27308074