2SC3338

Silicon NPN Epitaxial

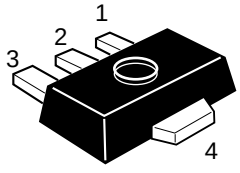
HITACHI

Application

UHF / VHF wide band amplifier

Outline

UPAK



1. Base
2. Collector
3. Emitter
4. Collector (Flange)

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Absolute Maximum Ratings (Ta = 25°C)

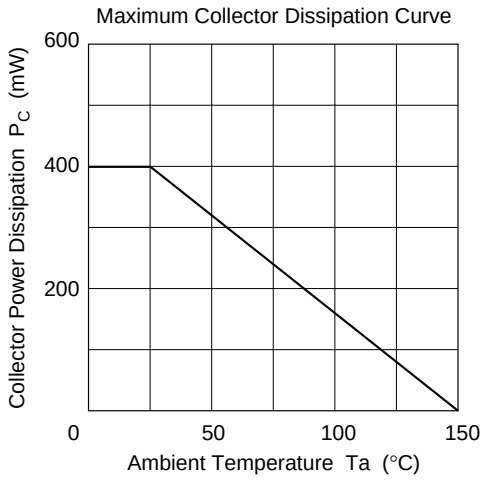
Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	20	V
Collector to emitter voltage	V_{CEO}	12	V
Emitter to base voltage	V_{EBO}	3	V
Collector current	I_C	50	mA
Collector power dissipation	P_C	400	mW
Junction temperature	Tj	150	°C
Storage temperature	Tstg	–55 to +150	°C

Electrical Characteristics (Ta = 25°C)

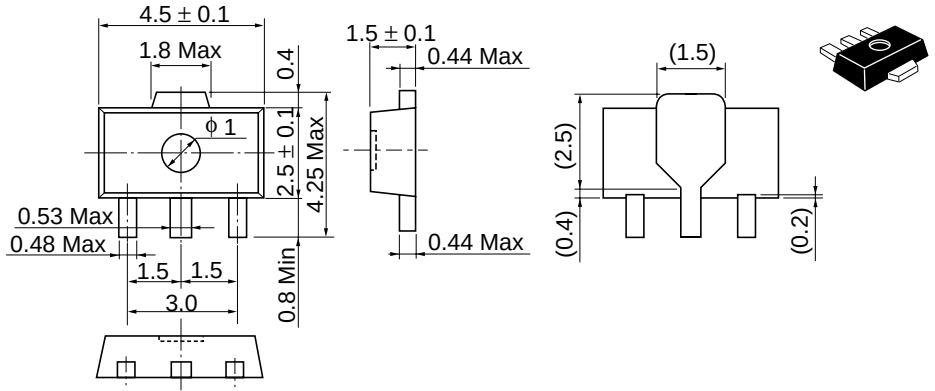
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	20	—	—	V	I_C = 10 µA, I_E = 0
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	12	—	—	V	I_C = 1 mA, R_{BE} = ∞
Emitter cutoff current	I_{EBO}	—	—	10	µA	V_{EB} = 3 V, I_C = 0
Collector cutoff current	I_{CBO}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

Note: Marking is “AR”.

See characteristic curves of 2SC3127.


Maximum Collector Dissipation Curve
Collector Power Dissipation P_C (mW)
600
400
200
0
50
100
150
Ambient Temperature Ta (°C)

Unit: mm



Hitachi Code	UPAK
JEDEC	—
EIAJ	Conforms
Weight (reference value)	0.050 g

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