
2SC3512

Silicon NPN Epitaxial

HITACHI

ADE-208-1088 (Z)

1st. Edition

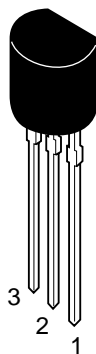
Mar. 2001

Application

UHF / VHF wide band amplifier

Outline

TO-92 (2)



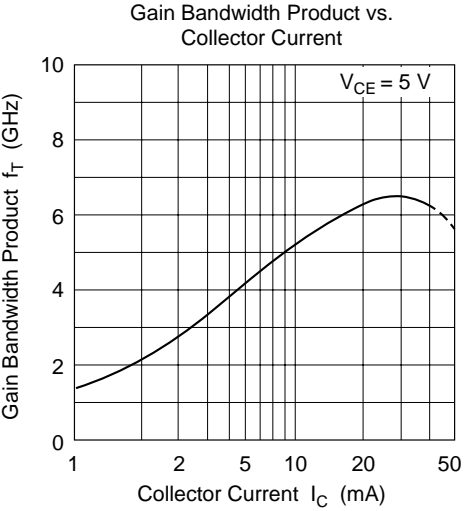
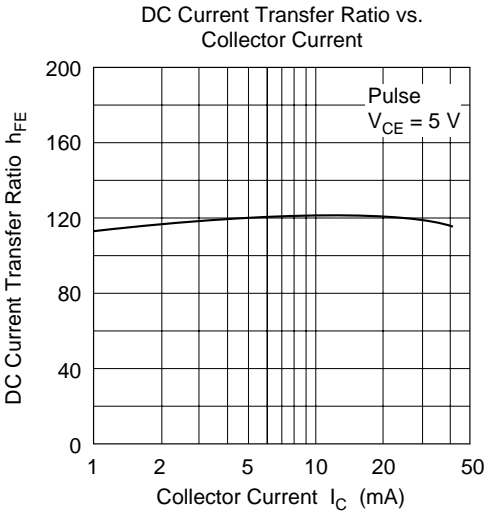
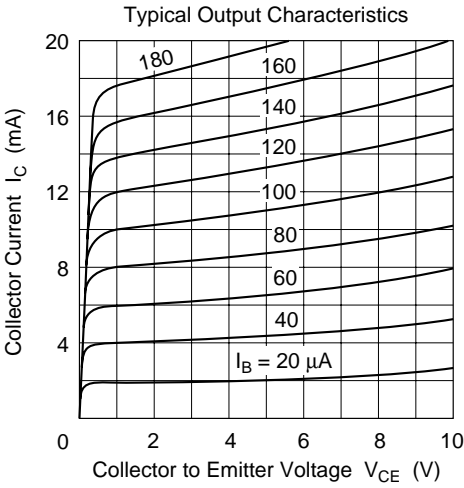
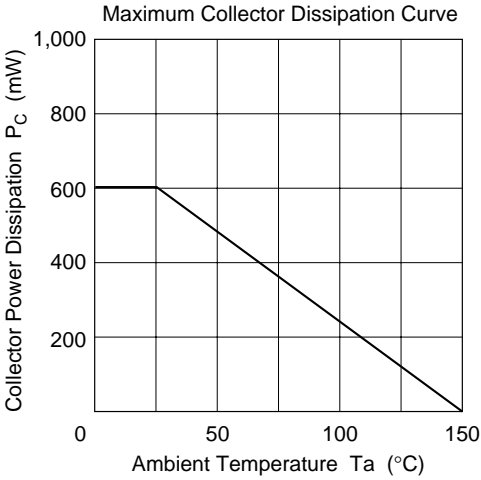
- 1. Base
- 2. Emitter
- 3. Collector

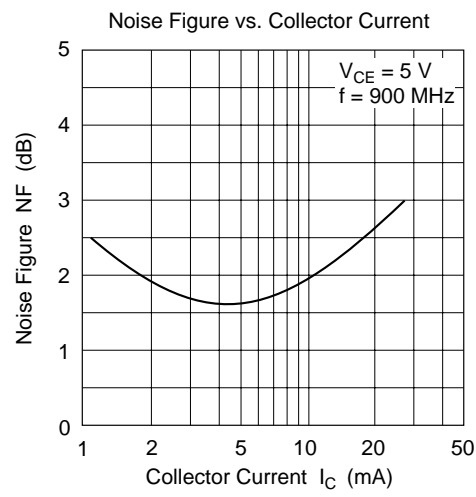
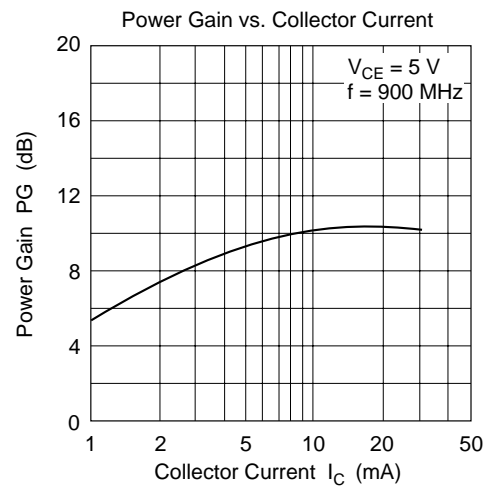
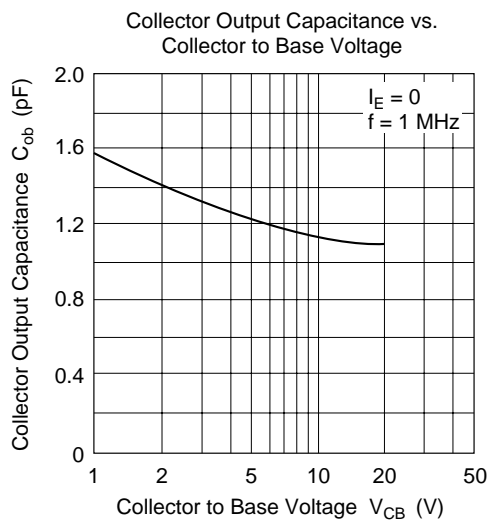
Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	15	V
Collector to emitter voltage	V_{CEO}	11	V
Emitter to base voltage	V_{EBO}	2	V
Collector current	I_C	50	mA
Collector power dissipation	P_C	600	mW
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	−55 to +150	°C

Electrical Characteristics (Ta = 25°C)

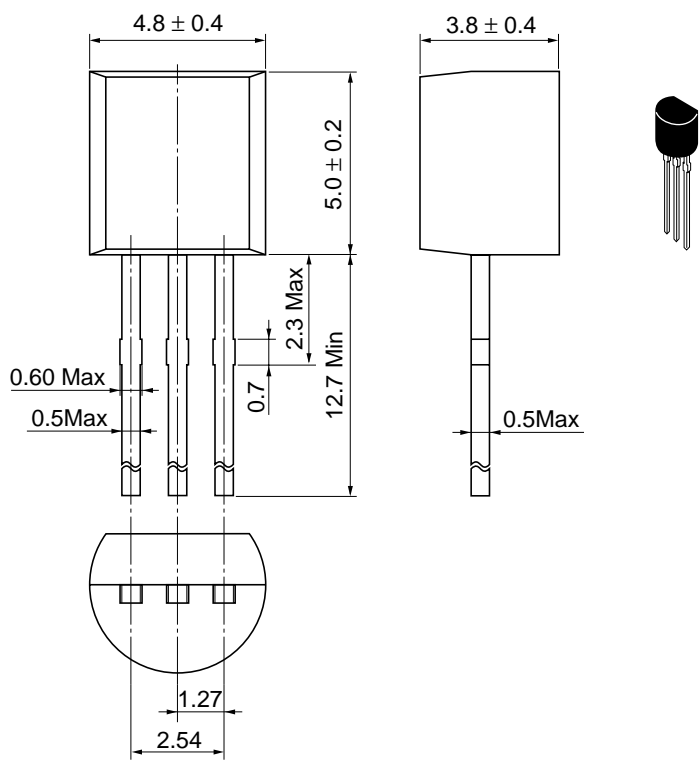
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	15	—	—	V	$I_C = 10 \mu A, I_E = 0$
Collector to cutoff current	I_{CEO}	—	—	1	μA	$V_{CE} = 10 V, R_{BE} = \infty$
Emitter cutoff current	I_{EBO}	—	—	1	μA	$V_{EB} = 1 V, I_C = 0$
Collector cutoff current	I_{CBO}	—	—	1	μA	$V_{CB} = 12 V, I_E = 0$
DC current transfer ratio	h_{FE}	50	120	250		$V_{CE} = 5 V, I_C = 20 mA$
Collector output capacitance	C_{ob}	—	1.2	1.6	pF	$V_{CB} = 5 V, I_E = 0, f = 1 MHz$
Gain bandwidth product	f_T	—	6.0	—	GHz	$V_{CE} = 5 V, I_C = 20 mA$
Power gain	PG	—	10.5	—	dB	$V_{CE} = 5 V, I_C = 20 mA, f = 900 MHz$
Noise figure	NF	—	1.6	—	dB	$V_{CE} = 5 V, I_C = 5 mA, f = 900 MHz$





Package Dimensions

As of January, 2001
Unit: mm



Hitachi Code	TO-92 (2)
JEDEC	Conforms
EIAJ	Conforms
Mass (reference value)	0.25 g

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