
2SC4308

Silicon NPN Epitaxial Planar

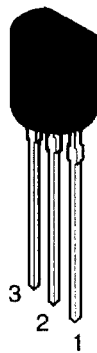
HITACHI

Application

VHF Wide band amplifier

Outline

TO-92 (2)



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

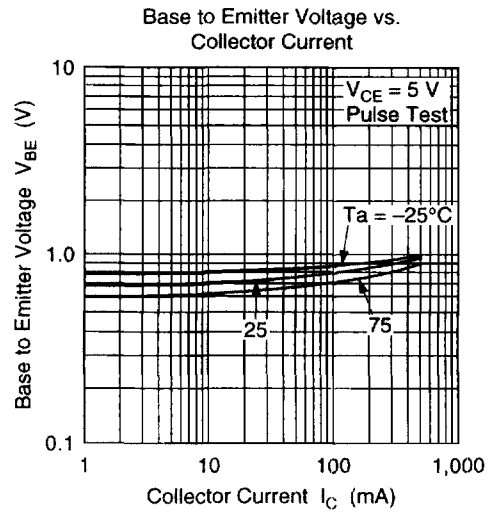
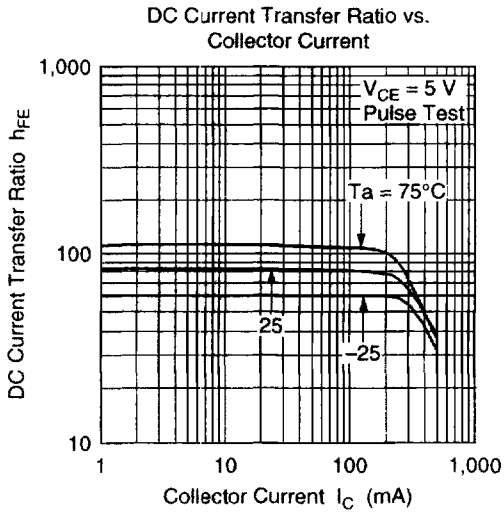
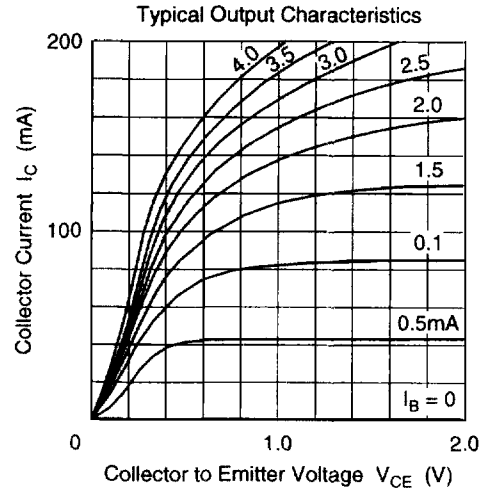
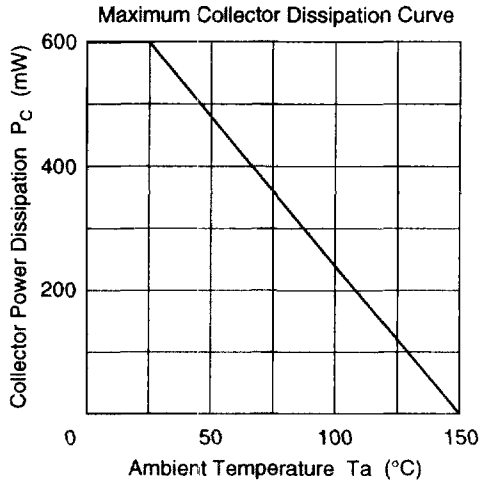
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Absolute Maximum Ratings (Ta = 25°C)

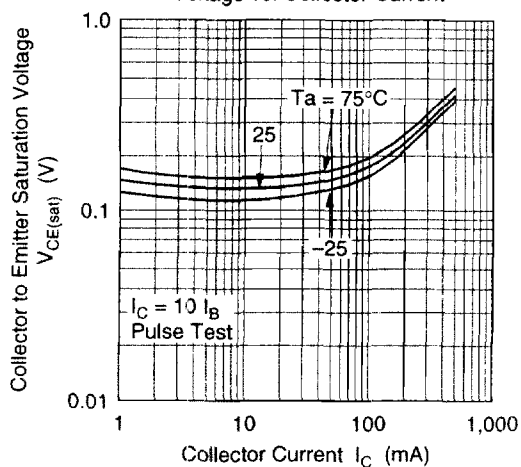
Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	30	V
Collector to emitter voltage	V_{CEO}	20	V
Emitter to base voltage	V_{EBO}	3	V
Collector current	I_C	300	mA
Collector peak current	$i_{C (peak)}$	500	mA
Collector power dissipation	P_C	600	mW
Junction temperature	T_j	150	°C
Storage temperature	Tstg	-55 to +150	°C

Electrical Characteristics (Ta = 25°C)

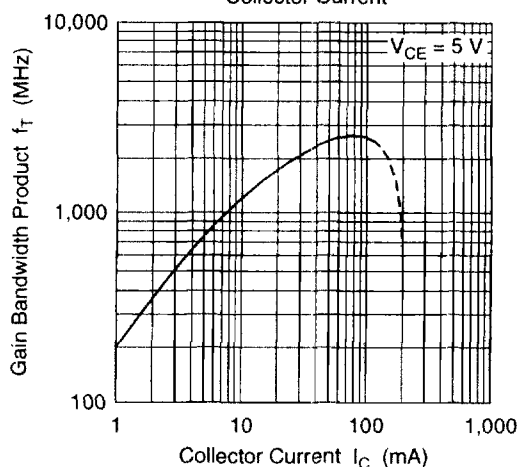
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	30	—	—	V	$I_C = 100 \mu A, I_E = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	20	—	—	V	$I_C = 1 \text{ mA}, R_{BE} = \infty$
Collector cutoff current	I_{CBO}	—	—	1	μA	$V_{CB} = 25 \text{ V}, I_E = 0$
Emitter cutoff current	I_{EBO}	—	—	10	μA	$V_{EB} = 3 \text{ V}, I_E = 0$
DC current transfer ratio	h_{FE}	50	—	200		$V_{CE} = 5 \text{ V}, I_C = 50 \text{ mA}$
Gain bandwidth product	f_T	1.5	2.5	—	GHz	$V_{CE} = 5 \text{ V}, I_C = 50 \text{ mA}$
Collector output capacitance	Cob	—	4.0	—	pF	$V_{CB} = 10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$



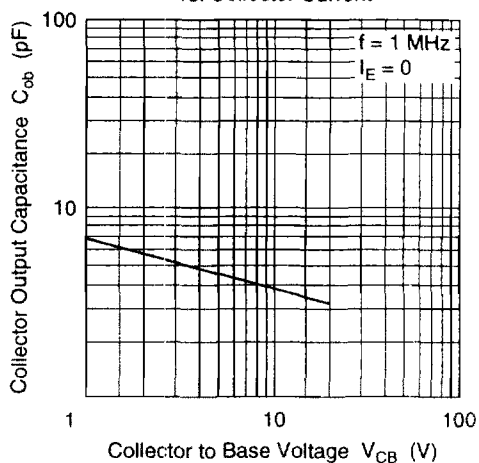
Collector to Emitter Saturation Voltage vs. Collector Current



Gain Bandwidth Product vs. Collector Current



Collector Output Capacitance vs. Collector Current



Emitter Input Capacitance vs. Emitter to Base Voltage

