

2SC4529

**Silicon NPN Epitaxial
VHF Wide Band Amplifier**

Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Rating	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	1	W
	P _C ^{*1}	5	
Junction temperature	T _j	150	°C
Storage temperature	T _{stg}	-55 to +150	°C

Note: 1. Value at T_C = 25°C.

Electrical Characteristics (Ta = 25°C)

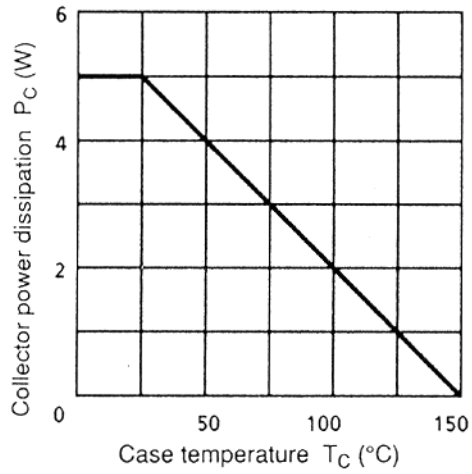
Item	Symbol	Min	Typ	Max	Unit	Test condition
Collector to base breakdown voltage	V _{(BR)CBO}	30	—	—	V	I _C = 100 μA, I _E = 0
Collector to emitter breakdown voltage	V _{(BR)CEO}	20	—	—	V	I _C = 1 mA, R _{BE} = ∞
Collector cutoff current	I _{CBO}	—	—	1.0	μA	V _{CB} = 25 V, I _E = 0
Emitter cutoff Current	I _{EBO}	—	—	10	μA	V _{EB} = 3 V, I _C = 0
DC current transfer ratio	h _{FE}	50	—	200		V _{CE} = 5 V, I _C = 50 mA
Collector to emitter saturation voltage	V _{CE(sat)}	—	—	1.0	V	I _C = 100 mA, I _B = 10 mA
Gain bandwidth product	f _T	1.5	2.2	—	GHz	V _{CE} = 5 V, I _C = 50 mA
Collector output capacitance	C _{ob}	—	4.7	—	pF	V _{CB} = 10 V, I _E = 0, f = 1 MHz

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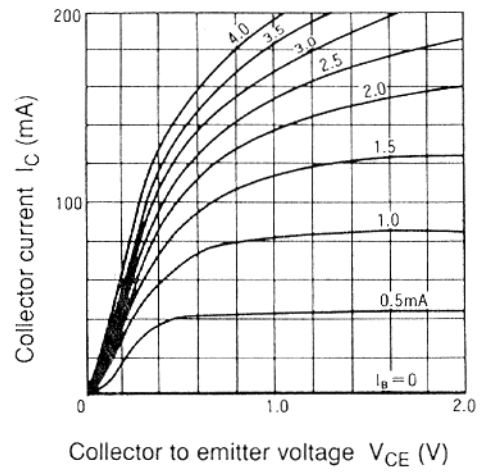


1. Emitter
2. Collector
3. Base

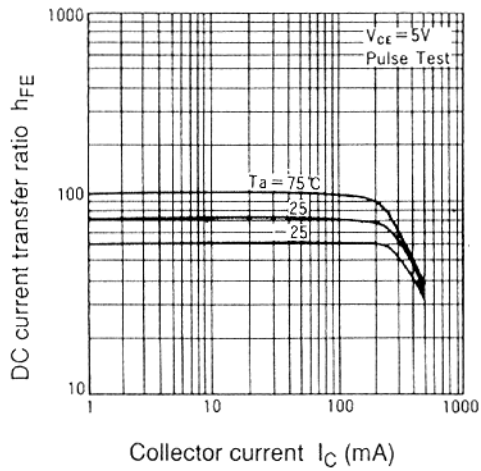
Maximum Collector Dissipation Curve



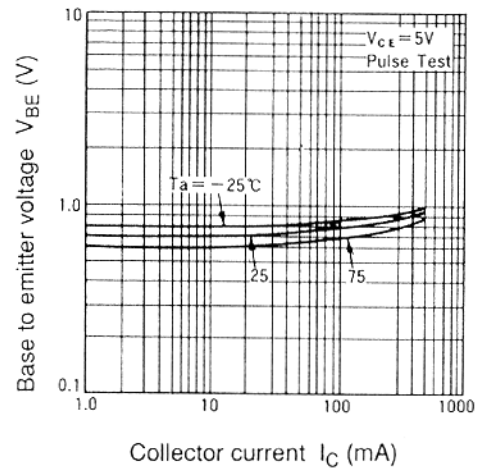
Typical Output Characteristics



DC Current Transfer Ratio vs. Collector Current

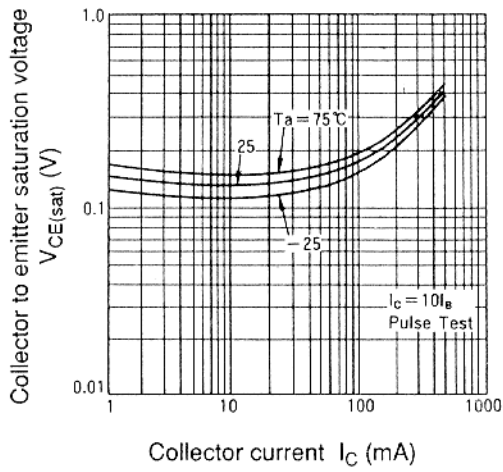


Base to Emitter Voltage vs. Collector Current

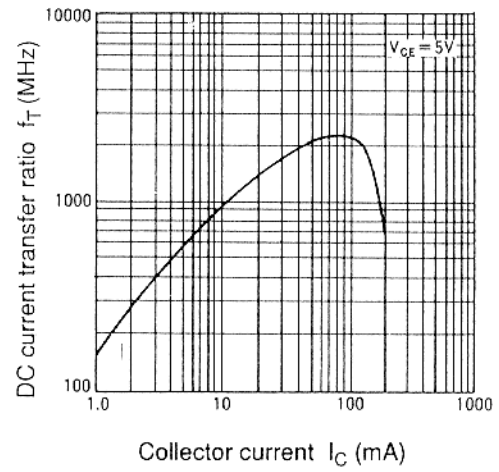


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Collector to Emitter Saturation Voltage vs. Collector Current



Gain Bandwidth Product vs. Collector Current



Collector Output Capacitance vs. Collector to Base Voltage

