

2SC4529

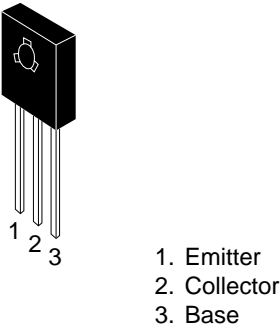
Silicon NPN Epitaxial  
VHF Wide Band Amplifier

Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Rating	Unit
Collector to base voltage	V <sub>CBO</sub>	30	V
Collector to emitter voltage	V <sub>CEO</sub>	20	V
Emitter to base voltage	V <sub>EBO</sub>	3	V
Collector current	I <sub>C</sub>	300	mA
Collector peak current	i <sub>C(peak)</sub>	500	mA
Collector power dissipation	P <sub>C</sub>	1	W
	P <sub>C</sub> *1	5	
Junction temperature	T <sub>j</sub>	150	°C
Storage temperature	T <sub>stg</sub>	−55 to +150	°C

Note: 1. Value at T<sub>C</sub> = 25°C.

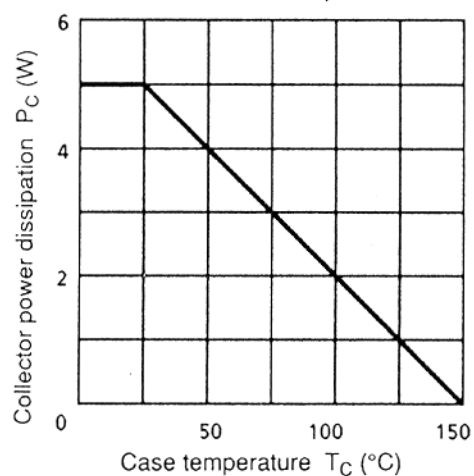
TO-126 MOD



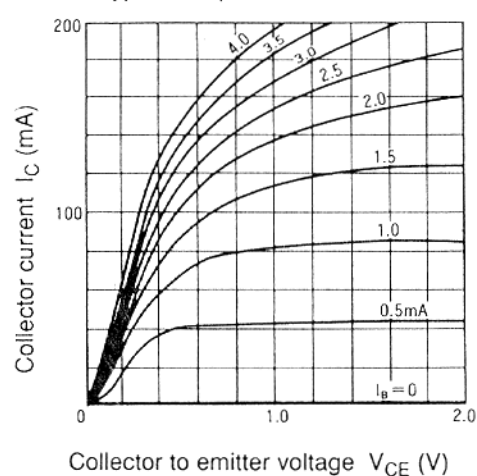
Electrical Characteristics (Ta = 25°C)

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

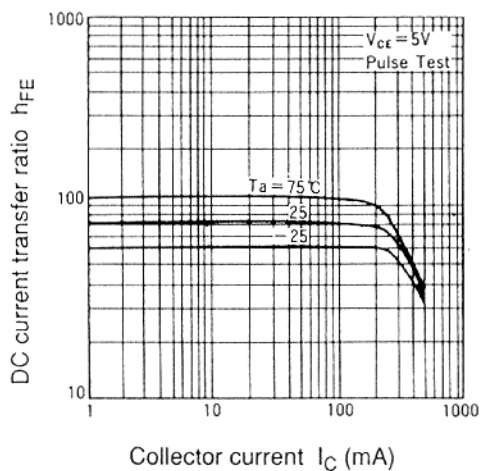
Maximum Collector Dissipation Curve



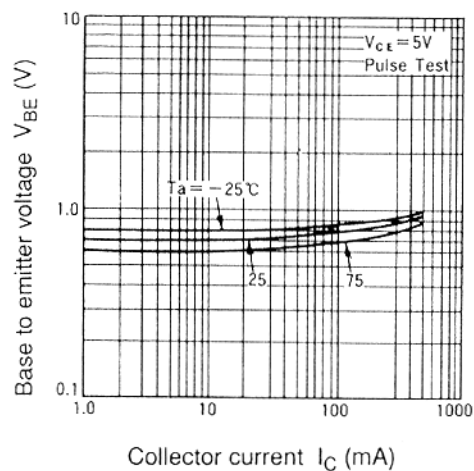
Typical Output Characteristics



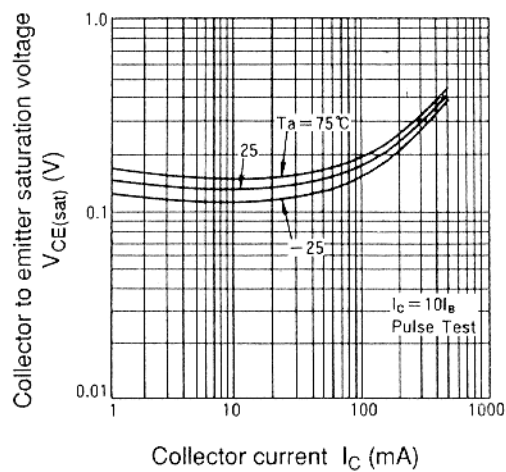
DC Current Transfer Ratio vs. Collector Current



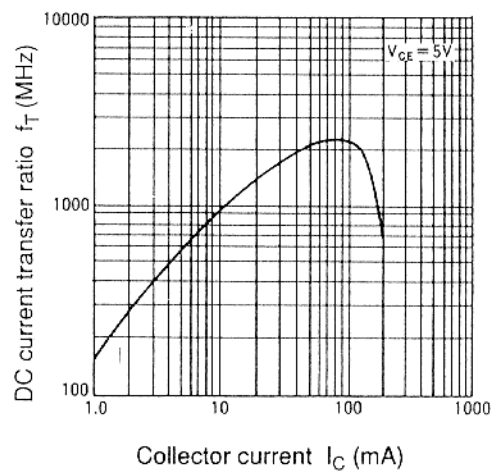
Base to Emitter Voltage vs. Collector Current



Collector to Emitter Saturation Voltage vs.  
Collector Current



Gain Bandwidth Product vs.  
Collector Current



Collector Output Capacitance vs.  
Collector to Base Voltage

