

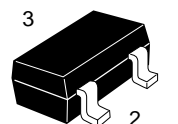
2SC4593

Silicon NPN Epitaxial UHF/VHF Wide Band Amplifier

Table 1 Absolute Maximum Ratings
($T_a = 25^\circ\text{C}$)

Item	Symbol	Rating	Unit
Collector to base voltage	V_{CBO}	15	V
Collector to emitter voltage	V_{CEO}	9	V
Emitter to base voltage	V_{EBO}	1.5	V
Collector current	I_C	50	mA
Collector power dissipation	P_C	100	mW
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

CMPAK



1. Emitter
2. Base
3. Collector

Table 2 Electrical Characteristics ($T_a = 25^\circ\text{C}$)

Item	Symbol	Min	Typ	Max	Unit	Test condition
Collector to base breakdown voltage	$V_{(BR)CBO}$	15	—	—	V	$I_C = 10 \mu\text{A}$, $I_E = 0$
Collector cutoff current	I_{CBO}	—	—	1	μA	$V_{CB} = 12 \text{ V}$, $I_E = 0$
	I_{CEO}	—	—	1	mA	$V_{CE} = 9 \text{ V}$, $R_{BE} = \infty$
Emitter cutoff current	I_{EBO}	—	—	10	μA	$V_{EB} = 1.5 \text{ V}$, $I_C = 0$
DC current transfer ratio	h_{FE}	40	120	250	—	$V_{CE} = 5 \text{ V}$, $I_C = 20 \text{ mA}$
Collector output capacitance	C_{ob}	—	0.8	1.5	pF	$V_{CB} = 5 \text{ V}$, $I_E = 0$, $f = 1 \text{ MHz}$
Gain bandwidth product	f_T	6.5	9.0	—	GHz	$V_{CE} = 5 \text{ V}$, $I_C = 20 \text{ mA}$
Power gain	PG	9.5	12.5	—	dB	$V_{CE} = 5 \text{ V}$, $I_C = 20 \text{ mA}$, $f = 900 \text{ MHz}$
Noise figure	NF	—	1.2	2.5	dB	$V_{CE} = 5 \text{ V}$, $I_C = 5 \text{ mA}$, $f = 900 \text{ MHz}$

- See characteristic curve of 2SC4592
- Marking is "XM-".