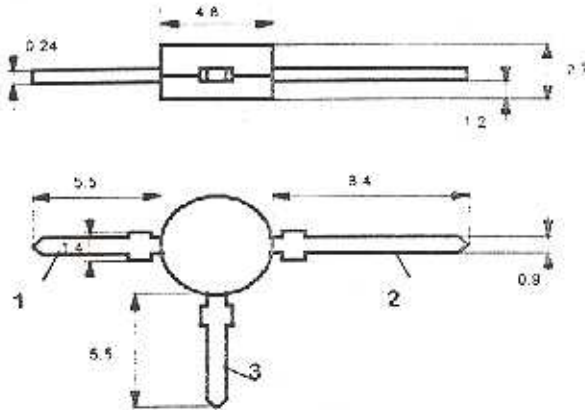


BFR90, BFR90A

N-P-N bipolar silicon RF transistors



Transistors are designed for application in satellite communication systems, wideband amplifiers, radar systems, high speed switches, HF oscillators.
Plastic package SOT-37.

Pinouts:

1- Base, 2- Collector, 3- Emitter

Ratings

Symbol	Parameter, unit	Limits
V_{CB0}	Collector- base voltage, V	20
V_{CE0}	Collector- emitter voltage, V	15
V_{EB0}	Emitter- base voltage, V	2
I_C	Collector current, mA	25
P_{tot}	Power dissipation, mW $T_A = -45$ to $+60^\circ\text{C}$ $T_A = +70^\circ\text{C}$	280 200

Characteristics ($T_A = 25^\circ\text{C}$)

Symbol	Parameter, unit, test conditions	Limits	
		min	max
f_T	Transition frequency, GHz, $I_E=14\text{mA}$, $V_{CE}=10\text{V}$ $I_E=14\text{mA}$, $V_{CB}=10\text{V}$	BFR90	4.6
		BFR90A	5.5
h_{FE}	DC current gain, $I_E=14\text{mA}$, $V_{CB}=10\text{V}$ $I_E=14\text{mA}$, $V_{CE}=10\text{V}$	BFR90	50
		BFR90A	100
I_{CBO}	Collector cut-off current, nA, $V_{CB}=10\text{V}$		100
G_P	Power gain, dB, $I_E=14\text{mA}$, $V_{CE}=10\text{V}$, $f=500\text{MHz}$ $I_E=14\text{mA}$, $V_{CE}=10\text{V}$, $f=800\text{MHz}$	BFR90	16
		BFR90A	15
F	Noise figure, dB, $I_E=2\text{mA}$, $V_{CE}=6\text{V}$, $f=500\text{MHz}$ $I_E=2\text{mA}$, $V_{CE}=6\text{V}$, $f=800\text{MHz}$	BFR90	1.9
		BFR90A	1.8
C_C	Collector capacitance, pF, $V_{CB}=10\text{V}$, $f=1\text{MHz}$		0.9

Alternative KT3190A, KT3198C



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