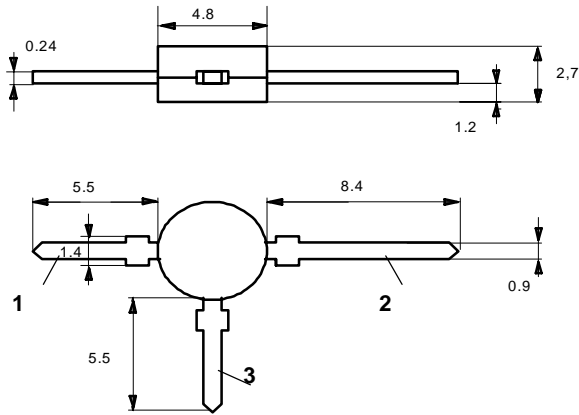


BFR96, BFR96S

N-P-N bipolar silicon RF transistors



Transistors are designed for application in satellite communication systems, small signal amplifiers, wideband, low noise, front end, high speed switches, HF oscillators. Plastic package SOT-37.

Pinouts:

1- Base, 2- Collector, 3- Emitter

Ratings

Symbol	Parameter, unit, test conditions	Limits	
V_{CB0}	Collector- base voltage, V	20	
V_{CE0}	Collector- emitter voltage, V	15	
V_{EB0}	Emitter- base voltage, V	3	
I_C	Collector current, mA,	BFR96	75
		BFR96S	100
P_{tot}	Power dissipation, mW $T_A = -45$ to $+25^\circ\text{C}$ $T_A = +70^\circ\text{C}$		700
			375

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

Symbol	Parameter, unit, test conditions	Limits	
		min	max
f_T	Transition frequency, GHz, $I_E = 50\text{mA}$, $V_{CB} = 10\text{V}$	3.2	
h_{FE}	DC current gain, $I_E = 50\text{mA}$, $V_{CB} = 10\text{V}$ $I_E = 70\text{mA}$, $V_{CB} = 10\text{V}$	BFR96	75
		BFR96S	75
I_{CBO}	Collector cut-off current, nA, $V_{CB} = 10\text{V}$		100
I_{EBO}	Emitter cut-off current, μA , $V_{EB} = 3\text{V}$		100
G_P	DC current gain, dB, $I_E = 50\text{mA}$, $V_{CB} = 10\text{V}$, $f = 500\text{MHz}$ $I_E = 50\text{mA}$, $V_{CB} = 10\text{V}$, $f = 800\text{MHz}$	BFR96	13.5
		BFR96S	9.0
F	Noise figure, dB, $I_E = 50\text{mA}$, $V_{CE} = 10\text{V}$, $f = 800\text{MHz}$		3.6
C_C	Collector capacitance, pF, $V_{CB} = 10\text{V}$, $f = 1\text{MHz}$		2.0