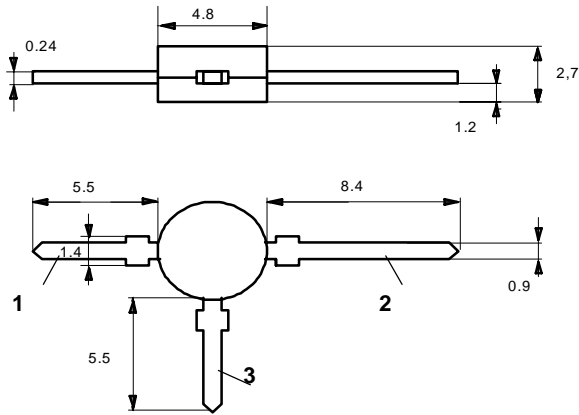


# BFR96, BFR96S

## 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, $\mu\text{A}$ , $V_{EB} = 3\text{V}$		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