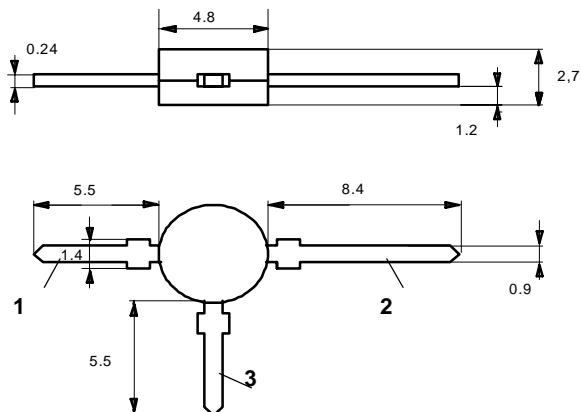


# BFR96, BFR96S

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 BFR96S	75 100
$P_{tot}$	Power dissipation, mW $T_A = -45$ to $+25^\circ C$ $T_A = +70^\circ C$	700 375

## Characteristics ( $T_A = 25^\circ C$ )

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 BFR96S 75 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 BFR96S 13.5 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