




**DESCRIPTION**

The BFR92ALT1 is a low noise, high gain, discrete silicon bipolar transistors housed in low cost plastic packages.

**IMPORTANT:** For the most current data, consult MICROSEMI's website: <http://www.microsemi.com>

**KEY FEATURES**

-  High FTau-4.5GHz
-  Low noise-3.0dB@500MHz
-  Low cost SOT23 package

**ABSOLUTE MAXIMUM RATINGS (T<sub>CASE</sub> = 25°C)**

Symbol	Parameter	Value	Unit
V <sub>CBO</sub>	Collector-Base Voltage	20	V
V <sub>CEO</sub>	Collector-Emitter Voltage	15	V
V <sub>EBO</sub>	Emitter-Base Voltage	2.0	V
I <sub>C</sub>	Device Current	25	mA
P <sub>DISS</sub>	Power Dissipation	273	mW
T <sub>J</sub>	Junction Temperature	150	C
T <sub>STG</sub>	Storage Temperature	-55 to +150	C

**THERMAL DATA**

R <sub>TH(j-c)</sub>	Junction-Case Thermal Resistance	275	C/W
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**APPLICATIONS/BENEFITS**

-  LNA, Oscillator, Pre-Driver



SOT-23  
BFR92ALT1

**STATIC ELECTRICAL SPECIFICATIONS (T<sub>CASE</sub> = 25 °C)**

Symbol	Test Conditions				Units
		Min.	Typ.	Max.	
BV <sub>CBO</sub>	I <sub>C</sub> = .1mA I <sub>E</sub> = 0	20			V
BV <sub>CEO</sub>	I <sub>C</sub> = 10mA I <sub>B</sub> = 0	15			V
I <sub>CBO</sub>	V <sub>CB</sub> = 10V I <sub>E</sub> = 0			50	nA
h <sub>FE</sub>	V <sub>CB</sub> = 10V I <sub>C</sub> = 14mA	40			

**DYNAMIC ELECTRICAL SPECIFICATIONS (T<sub>CASE</sub> = 25 °C)**

Symbol	Test Conditions				Units
		Min.	Typ.	Max.	
C <sub>CB</sub>	V <sub>CB</sub> = 10 V f = 1.0 MHz		0.7		pF
FTau	V <sub>CE</sub> = 10 V I <sub>C</sub> = 14 mA f = 500MHz		4.5		GHz
NF	V <sub>CE</sub> = 1.5 V I <sub>C</sub> = 3.0 mA f = 500MHz		3.0		dB