

Silicon NPN RF Transistor

BFR93A

DESCRIPTION

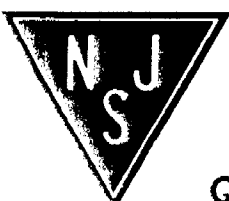
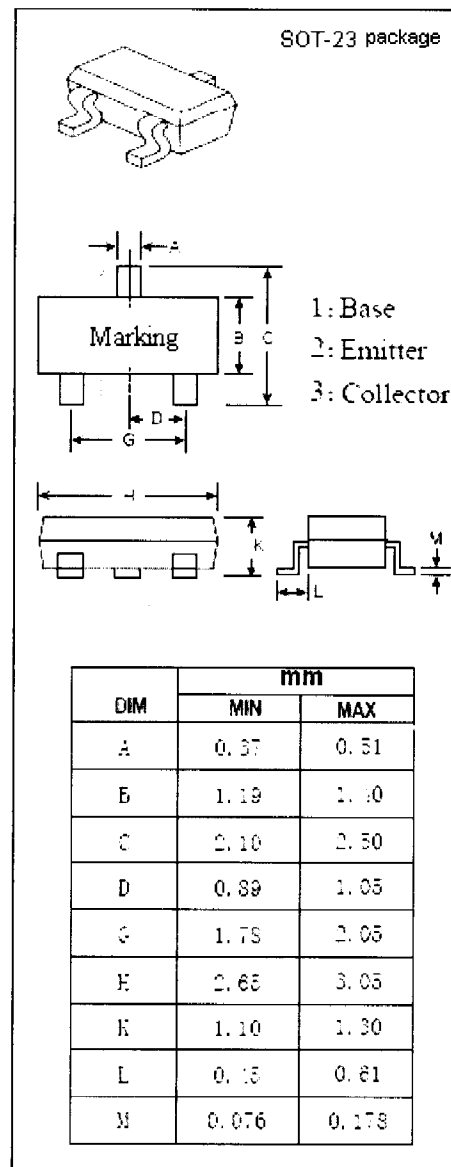
- High Power Gain
- High Current Gain Bandwidth Product
- Low Noise Figure

APPLICATIONS

- Designed for use in RF wideband amplifiers and oscillators.

ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{CBO}	Collector-Base Voltage	15	V
V _{CEO}	Collector-Emitter Voltage	12	V
V _{EBO}	Emitter-Base Voltage	2	V
I _C	Collector Current-Continuous	35	mA
P _C	Collector Power Dissipation @T _C =25°C	0.3	W
T _J	Junction Temperature	175	°C
T _{stg}	Storage Temperature Range	-65~150	°C



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ELECTRICAL CHARACTERISTICS

$T_C=25^\circ\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
I_{CBO}	Collector Cutoff Current	$V_{CB}=5\text{V}; I_E=0$			0.05	μA
h_{FE}	DC Current Gain	$I_C=30\text{mA}; V_{CE}=5\text{V}$	40			
f_T	Current-Gain—Bandwidth Product	$I_C=30\text{mA}; V_{CE}=5\text{V}; f=500\text{MHz}$	4.5	6		GHz
C_{OB}	Output Capacitance	$I_E=0; V_{CB}=5\text{V}; f=1\text{MHz}$		0.7		pF
C_{re}	Feedback Frequency	$I_E=0; V_{CB}=5\text{V}; f=1\text{MHz}$		0.6		pF
NF	Noise Figure	$I_C=5\text{mA}; V_{CE}=8\text{V}; f=1\text{GHz}$		1.9		dB
NF	Noise Figure	$I_C=5\text{mA}; V_{CE}=8\text{V}; f=2\text{GHz}$		3		dB

