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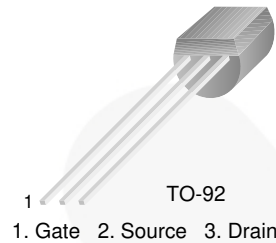


November 2014

# BF256B N-Channel RF Amplifiers

## Features

- This device is designed for VHF / UHF amplifiers
- Sourced from process 50



## Ordering Information

Part Number	Top Mark	Package	Packing Method
BF256B	BF256B	TO-92 3L	Bulk

## Absolute Maximum Ratings

Stresses exceeding the absolute maximum ratings may damage the device. The device may not function or be operable above the recommended operating conditions and stressing the parts to these levels is not recommended. In addition, extended exposure to stresses above the recommended operating conditions may affect device reliability. The absolute maximum ratings are stress ratings only. Values are at  $T_A = 25^\circ\text{C}$  unless otherwise noted.

Symbol	Parameter	Value	Unit
$V_{DG}$	Drain-Gate Voltage	30	V
$V_{GS}$	Gate-Source Voltage	-30	V
$I_{GF}$	Forward Gate Current	10	mA
$T_J, T_{STG}$	Operating and Storage Temperature Range	-55 to 150	$^\circ\text{C}$

## Thermal Characteristics

Values are at  $T_A = 25^\circ\text{C}$  unless otherwise noted.

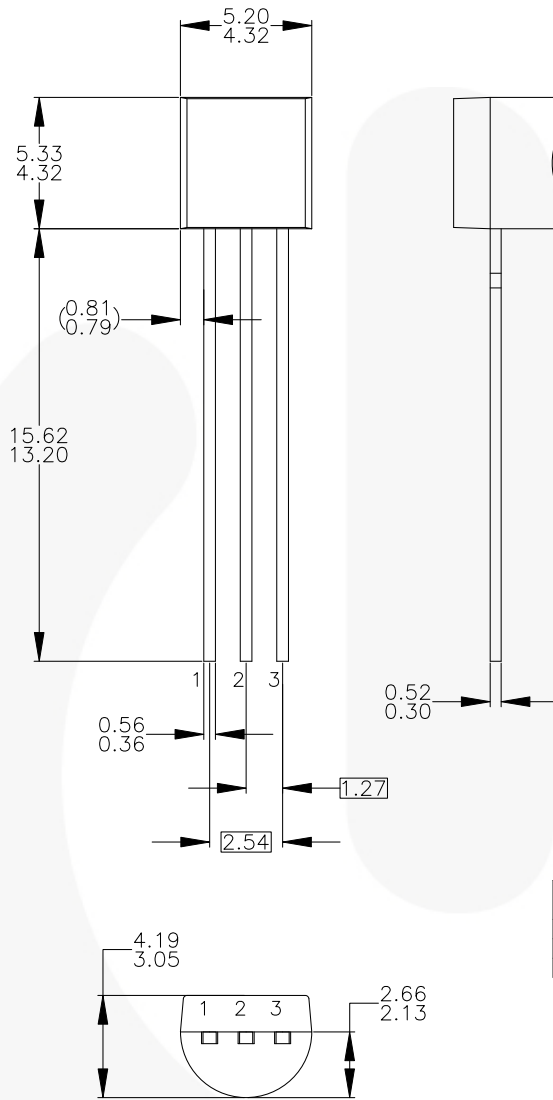
Symbol	Parameter	Value	Unit
$P_D$	Total Device Dissipation at $T_A = 25^\circ\text{C}$	350	mW
	Derate Above $25^\circ\text{C}$	2.8	mW/ $^\circ\text{C}$

## Electrical Characteristics

Values are at  $T_A = 25^\circ\text{C}$  unless otherwise noted.

Symbol	Parameter	Conditions	Min.	Max.	Unit
$V_{(BR)GSS}$	Gate-Source Breakdown Voltage	$V_{DS} = 0, I_G = 1 \mu\text{A}$	-30		V
$V_{GS}$	Gate-Source Voltage	$V_{DS} = 15 \text{ V}, I_D = 200 \mu\text{A}$	-0.5	-7.5	V
$V_{GS(off)}$	Gate-Source Cut-Off Voltage	$V_{DS} = 15 \text{ V}, I_D = 10 \text{ nA}$	-0.5	-8.0	V
$I_{GSS}$	Gate Reverse Current	$V_{GS} = -20 \text{ V}, V_{DS} = 0$		-5	nA
$I_{DSS}$	Zero-Gate Voltage Drain Current	$V_{DS} = 15 \text{ V}, V_{GS} = 0$	6	13	mA
gfs	Common Source Forward Transconductance	$V_{DS} = 15 \text{ V}, V_{GS} = 0,$ $f = 1 \text{ kHz}$	4.5		mmhos

### Physical Dimensions



NOTES: UNLESS OTHERWISE SPECIFIED

- A) DRAWING WITH REFERENCE TO JEDEC TO-92 RECOMMENDATIONS.
- B) ALL DIMENSIONS ARE IN MILLIMETERS.
- C) DRAWING CONFORMS TO ASME Y14.5M-1994.
- D) TO-92 (92,94,96,97,98) PIN CONFIGURATION:

PIN	92			94			96			97			98		
	P	F	M	P	F	M	B	F	M	P	F	M	P	F	M
1	E	S	S	E	S	S	B	D	G	C	G	D	C	G	D
2	B	D	G	C	G	D	E	S	S	B	D	G	E	S	S
3	C	G	D	B	D	G	C	G	D	E	S	S	B	D	G

LEGEND:

P - BIPOLAR      E - EMITTER      D - DRAIN  
 F - JFET          B - BASE              S - SOURCE  
 M - DMOS        C - COLLECTOR      G - GATE

- E) FOR PACKAGE 92, 94, 96, 97 AND 98: PIN CONFIGURATION DRAIN "D" AND SOURCE "S" ARE INTERCHANGEABLE AT JFET "F" OPTION.
- F) DRAWING FILENAME: MKT-ZA03DREV3.






**Figure 1. 3-Lead, TO-92, JEDEC TO-92 Compliant Straight Lead Configuration**





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No Identification Needed	Full Production	Datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice to improve the design.
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