n-channel JFETs *designed for . . .*

Siliconix

- **UHF Amplifiers**
- **Mixers**
- **Oscillators**

Performance Curves NH
See Section 4

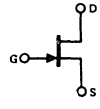
BENEFITS

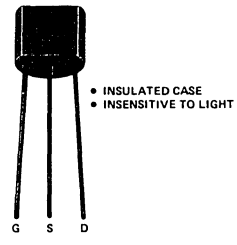
- High Gain
  G_{pg} = 14 dB Typical at 800 MHz
- Selected I_{DSS} Ranges

ABSOLUTE MAXIMUM RATINGS

Drain-Gate Voltage . . . . . 30 V
Drain-Source Voltage . . . . . 30 V
Reverse Gate-Source Voltage. . . . . 30 V
Forward Gate Current. . . . . 50 mA
Total Device Dissipation @ 25°C. . . . . 350 mW
Derate above 25°C . . . . . 3.5 mW/°C
Storage Temperature Range . . . . . −65 to +150°C
Lead Temperature
(1/16" from case for 10 seconds) . . . . . 260°C

TO-92
See Section 6





Bottom View

ELECTRICAL CHARACTERISTICS (25°C unless otherwise noted)

		Characteristic		Min	Typ	Max	Unit	Test Conditions	
1	STATIC	BV_{DGO}	Drain-Gate Breakdown Voltage	−30			V	I_G = −1 μA, V_{DS} = 0	
2	STATIC	I_{GSS}	Gate-Reverse Current			−5	nA	V_{GS} = −20 V, V_{DS} = 0	
3	STATIC	$V_{GS(off)}$	Gate-Source Cutoff Voltage	−0.5		−7.5	V	V_{DS} = 15 V, I_D = 10 nA	
4	STATIC	I_{DSS}	Drain Current at Zero Gate Voltage (Note 1)	3	12	18	mA	V_{DS} = 15 V, V_{GS} = 0	f = 1 kHz
5	STATIC	I_{DSS}	Selected into Following Groups (Note 1) BF256LA	3		7	mA		
6	STATIC	I_{DSS}	Selected into Following Groups (Note 1) BF256LB	6		13	mA		
7	STATIC	I_{DSS}	Selected into Following Groups (Note 1) BF256LC	11		18	mA		
8	DYNAMIC	g_{fs}	Common-Source Forward Transconductance (Note 1)	4.5	5.5		mmho		
9	DYNAMIC	g_{os}	Common-Source Output Conductance		50		μmho		
10	DYNAMIC	C_{iss}	Common-Source Input Capacitance			4.5	pF		f = 1 MHz
11	DYNAMIC	C_{rss}	Common-Source Reverse Transfer Capacitance			1.2	pF		
12	DYNAMIC	$f(y_{fs})$	Cutoff Frequency (Note 2)		1000		MHz		
13	DYNAMIC	G_{pg}	Common-Gate Neutralized Insertion Power Gain		14		dB	V_{DS} = 10 V, R_S = 47 Ω, f = 800 MHz	
14	DYNAMIC	NF	Noise Figure		7.5		dB	V_{DS} = 15 V, R_S = 47 Ω, f = 800 MHz	

NH

NOTES:
1. Pulse test PW ⩽ 300 μs, duty cycle ⩽ 2%.
2. Frequency at which the real part of the forward transconductance falls 3 dB relative to the value at 1 kHz.