

n-channel JFETs designed for . . .



- VHF/UHF Amplifiers
- Oscillators
- Mixers

Performance Curves NH See Section 4

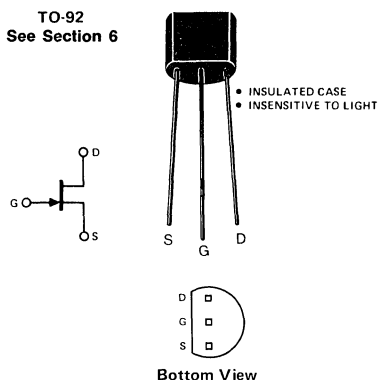
BENEFITS

- Wide Band
High y_{fs}/C_{iss} Ratio
- Low Feedback Capacitance
 $C_{rss} = 0.85$ pF Typical
- Selected I_{DSS} and V_{GS} Ranges

ABSOLUTE MAXIMUM RATINGS (25°C)

Drain-Gate Voltage	30 V
Drain-Source Voltage	30 V
Reverse Gate-Source Voltage.	30 V
Forward Gate Current.	10 mA
Continuous Device Dissipation at (or Below) 25°C Free Air Temperature (Note 1)	200 mW
Storage Temperature Range	-55°C to +150°C
Lead Temperature (1/16" from case for 10 seconds)	260°C

TO-92
See Section 6



ELECTRICAL CHARACTERISTICS (25°C)

Characteristic		Min	Typ	Max	Unit	Test Conditions	
1	BV_{GSS} Gate-Source Breakdown Voltage	-30			V	$I_G = -1 \mu A, V_{DS} = 0$	
2	I_{GSS} Gate Reverse Current			-5	nA	$V_{GS} = -20 V, V_{DS} = 0$	
3	I_{DSS} Saturation Drain Current	2		25	mA	$V_{DS} = 15 V, V_{GS} = 0$	
4	I_{DSS} Selected into Following Groups (Note 2)	BF245A	2.0	6.5	mA	$V_{DS} = 15 V, V_{GS} = 0$	
5		BF245B	6.0	15	mA		
6		BF245C	12	25	mA		
7	V_{GS} Corresponding to I_{DSS} groups	BF245A	-0.4	-2.2	V	$V_{DS} = 15 V, I_D = 200 \mu A$	
8		BF245B	1.6	-3.8	V		
9		BF245C	-3.2	-7.5	V		
10	$V_{GS(off)}$ Gate-Source Cutoff Voltage	-0.5		-8	V	$V_{DS} = 15 V, I_D = 10 \mu A$	
11	g_{fs} Small-Signal Common-Source Forward Transconductance	3	5.5	6.5	mmho	$V_{DS} = 15 V, V_{GS} = 0, f = 1$ kHz	
12	C_{rss} Common-Source Reverse Transfer Capacitance		0.85		pF	$V_{DS} = 20 V, V_{GS} = -1 V$	
13	$\frac{1}{g_{is}}$ Input Resistance		25		k Ω	$V_{DS} = 20 V, V_{GS} = -1 V$	f = 100 MHz
14			10		k Ω		f = 200 MHz
15	C_{iss} Common-Source Input Capacitance		4		pF	$V_{DS} = 20 V, V_{GS} = -1 V$	
16	C_{oss} Common-Source Output Capacitance		1.6		pF	$V_{DS} = 20 V, V_{GS} = -1 V$	

NOTE:

1. Derate linearly to 125°C free-air temperature at the rate of 2.5 mW/°C
2. Pulse test PW $\leq$ 300 μ s, duty cycle $\leq$ 3%

NH