

n-channel JFETs designed for . . .



Performance Curves NP
See Section 4

- **Small-Signal Amplifiers**
- **Switches**

BENEFITS

- Operates from High Supply Voltages
 $BV_{GSS} > 50 \text{ V}$

*ABSOLUTE MAXIMUM RATINGS (25°C)

Gate-Drain or Gate-Source Voltage (Note 1) -50 V

Gate Current 10 mA

Total Device Dissipation at (or below) 25°C

Free-Air Temperature (Note 2) 300 mW

Storage Temperature Range -65 to +200°C

TO-18
See Section 5



*ELECTRICAL CHARACTERISTICS (25°C unless otherwise noted)

Characteristic			2N3436		2N3437		2N3438		Unit	Test Conditions		
			Min	Max	Min	Max	Min	Max				
1	S T A T I C	IGSS	Gate Reverse Current		-0.5		-0.5		-0.5	nA	VGS = -30 V, VDS = 0	150°C
2					-1.0		-1.0		-1.0	μA		
3		BVGSS	Gate-Source Breakdown Voltage	-50		-50		-50		V	IG = -1 μA, VDS = 0	
4		ID(off)	Drain Cutoff Current		1.0 (-10.0)		1.0 (-5.0)		1.0 (-2.5)	nA (V)	VDS = 20 V, VGS = ()	
5		VGS(off)	Gate-Source Cutoff Voltage		-9.8		-4.8		-2.3	V	VDS = 20 V, ID = 1 μA	
6		IDSS	Saturation Drain Current	3.0	15.0	0.8	4.0	0.2	1.0	mA	VDS = 20 V, VGS = 0	
7	D Y N A M I C	gfs	Common-Source Forward Transconductance	2500	10,000	1500	6000	800	4500	μmho	VDS = 20 V, VGS = 0	f = 1 kHz
8		goss	Common-Source Output Conductance		35		20		5		VDS = 30 V, VGS = 0	
9		Coss	Common-Source Output Capacitance		6		6		6	pF		
10		Ciss	Common-Source Input Capacitance		18 (10)		18 (6)		18 (4)	pF (V)	VGS = 0 V, VDS = ()	
11		NF	Noise Figure		2		2		2	dB	VDS = 10 V, VGS = 0 , Rgen = 1 meg, BW = 6 Hz	

*JEDEC Registered Data.

NP

NOTES:

1. Due to symmetrical geometry, these units may be operated with source and drain leads interchanged.
2. Derate linearly to 200°C free-air temperature at rate of 1.7 mW/°C.