

n-channel JFETs designed for . . .



Performance Curves NP
See Section 4

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

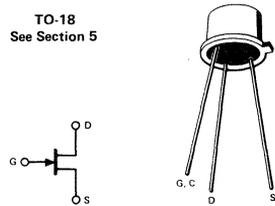
BENEFITS

- Operates from High Supply Voltages
BV_{GSS} > 50 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 2 3 4 5 6 7 8 9 10 11	1 2 3 4 5 6 7 8 9 10 11	S T A T I C	I _{GSS}	Gate Reverse Current		-0.5	-0.5	-0.5	nA	V _{GS} = -30 V, V _{DS} = 0	150°C			
						-1.0	-1.0	-1.0	μA					
			BV _{GSS}	Gate-Source Breakdown Voltage	-50		-50	-50	V	I _G = -1 μA, V _{DS} = 0				
			I _{D(off)}	Drain Cutoff Current		1.0 (-10.0)	1.0 (-5.0)	1.0 (-2.5)	nA (V)	V _{DS} = 20 V, V _{GS} = ()				
			V _{GS(off)}	Gate-Source Cutoff Voltage		-9.8	-4.8	-2.3	V	V _{DS} = 20 V, I _D = 1 μA				
			I _{DSS}	Saturation Drain Current	3.0	15.0	0.8	4.0	0.2	1.0	mA	V _{DS} = 20 V, V _{GS} = 0		
		D Y N A M I C	g _{fs}	Common-Source Forward Transconductance	2500	10,000	1500	6000	800	4500	μmho	V _{DS} = 20 V, V _{GS} = 0	f = 1 kHz	
						g _{oss}	Common-Source Output Conductance		35	20	5		V _{DS} = 30 V, V _{GS} = 0	f = 1 MHz
						C _{oss}	Common-Source Output Capacitance		6	6	6	pF		
						C _{iss}	Common-Source Input Capacitance		18 (10)	18 (6)	18 (4)	pF (V)	V _{GS} = 0 V, V _{DS} = ()	
			NF	Noise Figure		2	2	2	dB	V _{DS} = 10 V, V _{GS} = 0, R _{gen} = 1 meg, BW = 6 Hz	f = 1 kHz			

*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.