

n-channel JFET designed for . . .

Siliconix

PN5163

■ Low and Medium Frequency Amplifiers

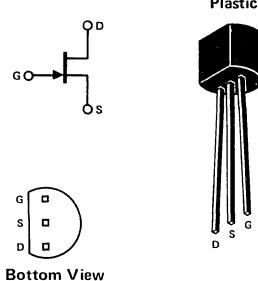
BENEFITS

- Low Cost

ABSOLUTE MAXIMUM RATINGS (25°C)

Gate-Drain or Gate-Source Voltage	.....	-25V
Gate Current (FWD)	.....	10 mA
Total Device Dissipation at 25°C Ambient	(Derate 3.27 mW/°C)	..... 360 mW
Operating Temperature Range	.....	-55 to 135°C
Storage Temperature Range	.....	-55 to 150°C
Lead Temperature Range (1/16" from case for 10 seconds)	.....	300°C

TO-92
See Section 6



*ELECTRICAL CHARACTERISTICS (25°C unless otherwise noted)

Characteristic			Min	Max	Unit	Test Conditions		
1 S	I _{GSS}	Gate Reverse Current		-10	nA	V _{GS} = -15 V, V _{DS} = 0	T _A = 85°C	
				-0.6	μA			
3 T	BV _{GSS}	Gate-Source Breakdown Voltage	-25			I _G = -10 μA, V _{DS} = 0	V _{DS} = 15 V, I _D = 1 μA	
4 A	V _{GS(off)}	Gate-Source Cutoff Voltage	-0.4	-8.0	V	V _{DS} = 15 V, I _D = 100 μA	V _{DS} = 15 V, V _{GS} = 0	
5 C	V _{GS}	Gate-Source Voltage		-7.5				
6 I	I _{DSS}	Saturation Drain Current	1.0	40	mA			
7 r _{ds(on)}	Drain-Source ON Resistance		500		Ω	V _{GS} = 0, I _D = 0	f = 1 kHz	
8 g _{fs}	Common-Source Forward Transconductance		2000	9000	μmho	V _{DS} = 15 V, V _{GS} = 0		
9 g _{os}	Common-Source Output Conductance			200				
10 Y	g _{fs}	Common-Source Forward Transconductance	1800			f = 1 MHz		
11 A	C _{iss}	Common-Source Input Capacitance		20	pF			
12 M	C _{rss}	Common-Source Reverse Transfer Capacitance		5.0				
13 I	NF	Common-Source Spot Noise Figure		3.0	dB	V _{DS} = 15 V, I _D = 1 mA	R _G = 150k Ω f = 1 kHz NBW = 150 Hz	
14 C	ε _N	Equivalent Short Circuit Input Noise Voltage		50	$\frac{nV}{\sqrt{Hz}}$			

* JEDEC registered data

3