n-channel JFETs *designed for . . .*

Siliconix

■ General Purpose Amplifiers

Performance Curves NZF See Section 5

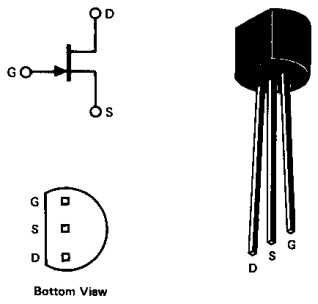
BENEFITS

- High Gain
  G_{FS} = 7000 μmho Minimum (J211, J212)
- High Input Impedance
  I_{GSS} = 100 pA Maximum
  C_{iss} = 5 pF Typical

ABSOLUTE MAXIMUM RATINGS (25°C)

Gate-Drain or Gate-Source Voltage . . . . . -25 V
Gate Current . . . . . 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 7



ELECTRICAL CHARACTERISTICS (25°C unless otherwise noted)

		Characteristic		J210			J211			J212			Unit	Test Conditions	
				Min	Typ	Max	Min	Typ	Max	Min	Typ	Max			
1	STATIC	I_{GSS}	Gate Reverse Current (Note 1)			-100			-100			-100	pA	V_{DS} = 0, V_{GS} = -15 V	
2	STATIC	$V_{GS(off)}$	Gate-Source Cutoff Voltage	-1		-3	-2.5		-4.5	-4		-6	V	V_{DS} = 15 V, I_D = 1 nA	
3	STATIC	BV_{GSS}	Gate-Source Breakdown Voltage	-25			-25			-25				V_{DS} = 0, I_G = -1 μA	
4	STATIC	I_{DSS}	Saturation Drain Current (Note 2)	2		15	7		20	15		40	mA	V_{DS} = 15 V, V_{GS} = 0	
5	STATIC	I_G	Gate Current (Note 1)		-10			-10			-10		pA	V_{DG} = 10 V, I_D = 1 mA	
6	DYNAMIC	g_{fs}	Common-Source Forward Transconductance (Note 2)	4,000		12,000	7,000		12,000	7,000		12,000	μmho	V_{DS} = 15 V, V_{GS} = 0	f = 1 kHz
7	DYNAMIC	g_{os}	Common-Source Output Conductance			150			200			200			
8	DYNAMIC	C_{iss}	Common-Source Input Capacitance		4			4			4		pF		f = 1 MHz
9	DYNAMIC	C_{rss}	Common-Source Reverse Transfer Capacitance		1			1			1				
10	DYNAMIC	$\bar{e}_n$	Equivalent Short-Circuit Input Noise Voltage		10			10			10		$\frac{nV}{\sqrt{Hz}}$		f = 1 kHz

NOTES:
1. Approximately doubles for every 10°C increase in T_A.
2. Pulse test duration = 2 ms.

NZF