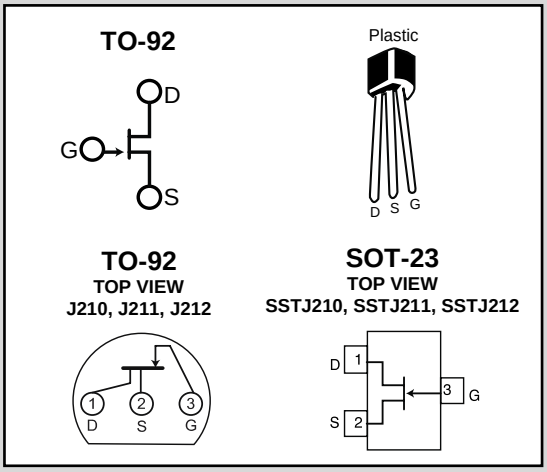
LINEAR SYSTEMS

Twenty-Five Years Of Quality Through Innovation

J210, J211, J212
SSTJ210, SSTJ211, SSTJ212

LOW NOISE N-CHANNEL JFET GENERAL PURPOSE AMPLIFIER

FEATURES	
HIGH GAIN g_{fs}=7000µmho MINIMUM (J211, J212)	
HIGH INPUT IMPEDENCE I_{GSS}= 100pA MAXIMUM	
LOW CAPACITANCE C_{ISS}= 5pF TYPICAL	
ABSOLUTE MAXIMUM RATINGS @ 25 °C (unless otherwise stated)	
Gate-Drain or Gate-Source Voltage	-25V
Gate Current	10mA
Total Device Dissipation @25°C Ambient (Derate 3.27 mW/°C)	360mW
Operating Temperature Range	-55 to +150 °C



ELECTRICAL CHARACTERISTICS @ 25 °C (unless otherwise stated)

SYMBOL	CHARACTERISTICS	SSTJ210			SSTJ211			SSTJ212			UNITS	CONDITIONS	
		MIN	TYP	MAX	MIN	TYP	MAX	MIN	TYP	MAX			
I_{GSS}	Gate Reverse Current	--	--	-100	--	--	-100	--	--	-100	pA	V_{DS} = 0, V_{GS} = -15V (NOTE 1)	
$V_{GS(off)}$	Gate-Source Cutoff Voltage	-1	--	-3	-2.5	--	-4.5	-4	--	-6	V	V_{DS} = 15V, I_D = 1nA	
BV_{GSS}	Gate-Source Breakdown Voltage	-25	--	--	-25	--	--	-25	--	--		V_{DS} = 0, I_G = -1µA	
I_{DSS}	Drain Saturation Current	2	--	15	7	--	20	15	--	40	mA	V_{DS} = 15V, V_{GS}=0 (NOTE 2)	
I_G	Gate Current	--	-10	--	--	-10	--	--	-10	--	pA	V_{DS} = 10V, I_D=1mA (NOTE 1)	
g_{fs}	Common-Source Forward Transconductance	4,000	--	12,000	6,000	--	12,000	7,000	--	12,000	µmho	V_{DS} = 15V, V_{GS}=0	f=1kHz
g_{os}	Common-Source Output Conductance	--	--	150	--	--	200	--	--	200			
C_{ISS}	Common-Source Input Capacitance	--	4	--	--	4	--	--	4	--	pF		f=1MHz
C_{rss}	Common-Source Reverse Transfer Capacitance	-	1	--	--	1	--	--	1	--			
e_n	Equivalent Short-Circuit Input Noise Voltage	-	10	--	--	10	--	--	10	--	nV√Hz		f=1kHz

NOTE

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

Linear Integrated Systems (LIS) is a 25-year-old, third-generation precision semiconductor company providing high-quality discrete components. Expertise brought to LIS is based on processes and products developed at Amelco, Union Carbide, Intersil and Micro Power Systems by company President John H. Hall. Hall, a protégé of Silicon Valley legend Dr. Jean Hoerni, was the director of IC Development at Union Carbide, Co-Founder and Vice President of R&D at Intersil, and Founder/President of Micro Power Systems.

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