

LSJ210 N-CHANNEL JFET



Linear Systems replaces discontinued Siliconix J210

The LSJ210 is a n-channel JFET General Purpose amplifier with low noise and low leakage.

The SOT-23 package is well suited for cost sensitive applications and mass production.

(See Packaging Information).

LSJ210 Benefits:

- High gain
- Low Leakage
- Low Noise

LSJ210 Applications:

- General Purpose Amplifiers
- UHV / VHF Amplifiers
- Mixers
- Oscillators

FEATURES						
DIRECT REPLACEMENT FOR SILICONIX J210						
HIGH GAIN	g _{fs} = 7000µmho MIN					
HIGH INPUT IMPEDANCE	$I_{GSS} = 100pA max$					
LOW INPUT CAPACITANCE	C _{iss} = 5pF					
ABSOLUTE MAXIMUM RATINGS @ 25°C (unless otherwise noted)						
Maximum Temperatures						
Storage Temperature	-55°C to +150°C					
Operating Junction Temperature	-55°C to +135°C					
Maximum Power Dissipation						
Continuous Power Dissipation	360mW					
Derating over temperature	3.27 mW/°C					
MAXIMUM CURRENT	<u> </u>					
Gate Current (Note 1)	10mA					
MAXIMUM VOLTAGES						
Gate to Drain Voltage or Gate to Source Voltage	-25V					

LSJ210 ELECTRICAL CHARACTERISTICS @ 25°C (unless otherwise noted)

SYMBOL	CHARACTERISTIC	MIN	TYP.	MAX	UNITS	CONDITIONS
BV_{GSS}	Gate to Source Breakdown Voltage	-25			V	$V_{DS} = 0V, I_{G} = -1\mu A$
$V_{GS(off)}$	Gate to Source Cutoff Voltage	-1		-3		$V_{DS} = 15V, I_{D} = 1nA$
I _{DSS}	Drain to Source Saturation Current (Note 2)	2		15	mA	$V_{DS} = 15V, V_{GS} = 0V$
I _{GSS}	Gate Reverse Current (Note 3)	1		-100	pА	$V_{DS} = 0V, V_{GS} = -15V$
I _G	Gate Operating Current (Note 3)	1	-10		pА	$V_{DS} = 10V, I_{D} = 1mA$
r _{DS(on)}	Drain to Source On Resistance			50	Ω	$I_G = 1mA$, $V_{DS} = 0V$

LSJ210 DYNAMIC ELECTRICAL CHARACTERISTICS @ 25°C (unless otherwise noted)

SYMBOL	CHARACTERISTIC	MIN	TYP.	MAX	UNITS	CONDITIONS
g _{fs}	Forward Transconductance	4000	-	12 <mark>00</mark> 0	μ <mark>mh</mark> o	$V_{DS} = 15V, V_{GS} = 0V, f = 1kHz$
g _{os}	Output Conductance		1	15 0		
C_{iss}	Input Capacitance	-	4)	pF	$V_{DS} = 15V$, $V_{GS} = 0V$, $f = 1MHz$
C_{rss}	Reverse Transfer Capacitance		1			
e _n	Equivalent Noise Voltage		10		nV/√Hz	$V_{DS} = 15V$, $V_{GS} = 0V$, $f = 1kHz$

LSJ210 SWITCHING CHARACTERISTICS @ 25°C (unless otherwise noted)

SYMBOL	CHARACTERISTIC		UNITS	CONDITIONS
t _{d(on)}	Turn On Time	2	ns ns	V _{DD} = 10V
t _r	Turn On Rise Time	2		V _{GS} (H) = 0V
t _{d(off)}	Turn Off Time	6		See Switching Circuit
t _f	Turn Off Fall Time	15		· ·

Note 1 - Absolute maximum ratings are limiting values above which LSJ210 serviceability may be impaired.

Note 2 - Pulse test duration = 2ms

Note 3 – Approximately doubles for every 10°C increase in T_A

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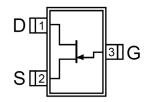
Tel: +44 1603 788967

Email: chipcomponents@micross.com Web: http://www.micross.com/distribution Available Packages:

LSJ210 in SOT-23 LSJ210 in bare die.

Please contact Micross for full package and die dimensions

SOT-23 (Top View)



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