

Linear Systems replaces discontinued Siliconix LSJ204

The LSJ204 is a high gain N-Channel JFET

This n-channel JFET is optimised for high gain. The part is particularly suitable for use in low power or high impedance amplifiers. The SOT-23 package is well suited for cost sensitive applications and mass production.

(See Packaging Information).

LSJ204 Benefits:

- High Input Impedance
- Low Cutoff Voltage
- Low Noise

LSJ204 Applications:

- Battery powered amplifiers
- Audio Pre-Amplifiers
- Infra-Red Detector Amplifiers

FEATURES

DIRECT REPLACEMENT FOR SILICONIX LSJ204

LOW CUT OFF VOLTAGE $V_{GS(off)} \leq 1.5$

HIGH GAIN $A_V = 80$ V/V

ABSOLUTE MAXIMUM RATINGS @ 25°C (unless otherwise noted)

Maximum Temperatures

Storage Temperature -65°C to +150°C

Operating Junction Temperature -55°C to +135°C

Maximum Power Dissipation

Continuous Power Dissipation 350mW

MAXIMUM CURRENT

Forward Gate Current (Note 1) 50mA

MAXIMUM VOLTAGES

Gate to Drain Voltage $V_{GDS} = -40V$

Gate to Source Voltage $V_{GSS} = -40V$

LSJ204 ELECTRICAL CHARACTERISTICS @ 25°C (unless otherwise noted)

SYMBOL	CHARACTERISTIC	MIN	TYP.	MAX	UNITS	CONDITIONS
BV_{GSS}	Gate to Source Breakdown Voltage	-25	--	--		$I_G = 1\mu A, V_{DS} = 0V$
$V_{GS(off)}$	Gate to Source Cutoff Voltage	-0.3	--	2	V	$V_{DS} = 15V, I_D = 10nA$
I_{DSS}	Drain to Source Saturation Current (Note 2)	0.2	--	3	mA	$V_{DS} = 15V, V_{GS} = 0V$
I_{GSS}	Gate Reverse Current	-2	--	-100		$V_{GS} = -20V, V_{DS} = 0V$
I_G	Gate Operating Current	--	-2	--	µA	$V_{DG} = 10V, I_D = 0.1mA$
$I_{D(off)}$	Drain Cutoff Current	--	2	--		$V_{DS} = 15V, V_{GS} = -5V$
g_{fs}	Forward Transconductance	0.5	--	--	mS	$V_{DS} = 15V, V_{GS} = 0V, f = 1kHz$
C_{iss}	Input Capacitance	--	4.5	--	pF	$V_{DS} = 15V, V_{GS} = 0V, f = 1MHz$
C_{rss}	Reverse Transfer Capacitance	--	1.3	--		
e_n	Equivalent Noise Voltage	--	6	--	nV/√Hz	$V_{DS} = 10V, I_D = 1mA, f = 1kHz$

Note 1 - Absolute maximum ratings are limiting values above which LSJ204 serviceability may be impaired.

Note 2 - Pulse test: $PW \leq 300 \mu s$, Duty Cycle $\leq 3\%$

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Available Packages:

LSJ204 in SOT-23
LSJ204 in bare die.

Please contact Micross for full package and die dimensions

SOT-23 (Top View)

