

Linear Systems replaces discontinued Siliconix J201

The J201 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 TO-92 package is well suited for cost sensitive applications and mass production.

(See Packaging Information).

J201 Benefits:

- High Input Impedance
- Low Cutoff Voltage
- Low Noise

J201 Applications:

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

FEATURES

DIRECT REPLACEMENT FOR SILICONIX J201

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

HIGH GAIN $A_V = 80 \text{ V/V}$

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 $V_{GDS} = -40\text{V}$

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

J201 ELECTRICAL CHARACTERISTICS @ 25°C (unless otherwise noted)

SYMBOL	CHARACTERISTIC	MIN	TYP.	MAX	UNITS	CONDITIONS
BV_{GSS}	Gate to Source Breakdown Voltage	-40	--	--		$I_G = 1\mu\text{A}, V_{DS} = 0\text{V}$
$V_{GS(off)}$	Gate to Source Cutoff Voltage	-0.3	--	1.5	V	$V_{DS} = 15\text{V}, I_D = 10\text{nA}$
I_{DSS}	Drain to Source Saturation Current (Note 2)	0.2	--	1	mA	$V_{DS} = 15\text{V}, V_{GS} = 0\text{V}$
I_{GSS}	Gate Reverse Current	-2	--	-100		$V_{GS} = -20\text{V}, V_{DS} = 0\text{V}$
I_G	Gate Operating Current	--	-2	--	µA	$V_{DG} = 10\text{V}, I_D = 0.1\text{mA}$
$I_{D(off)}$	Drain Cutoff Current	--	2	--		$V_{DS} = 15\text{V}, V_{GS} = -5\text{V}$
g_{fs}	Forward Transconductance	0.5	--	--	mS	$V_{DS} = 15\text{V}, V_{GS} = 0\text{V}, f = 1\text{kHz}$
C_{iss}	Input Capacitance	--	4.5	--	pF	$V_{DS} = 15\text{V}, V_{GS} = 0\text{V}, f = 1\text{MHz}$
C_{rss}	Reverse Transfer Capacitance	--	1.3	--		
e_n	Equivalent Noise Voltage	--	6	--	nV/√Hz	$V_{DS} = 10\text{V}, I_D = 1\text{mA}, f = 1\text{kHz}$

Note 1 - Absolute maximum ratings are limiting values above which J201 serviceability may be impaired.

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

Micross Components Europe

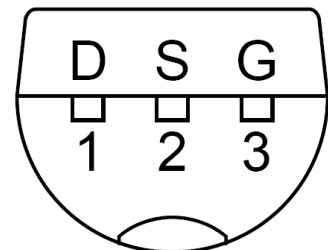
Available Packages:

TO-92 (Bottom View)



J201 in TO-92
J201 in bare die.

Please contact Micross for full package and die dimensions



Tel: +44 1603 788967
Email: chipcomponents@micross.com
Web: <http://www.micross.com/distribution>

Information furnished by Linear Integrated Systems and Micross Components is believed to be accurate and reliable. However, no responsibility is assumed for its use; nor for any infringement of patents or other rights of third parties which may result from its use. No license is granted by implication or otherwise under any patent or patent rights of Linear Integrated Systems.