

Linear Systems replaces discontinued Siliconix SST204

The SST204 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).

**SST204 Benefits:**

- High Input Impedance
- Low Cutoff Voltage
- Low Noise

**SST204 Applications:**

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

**FEATURES**

DIRECT REPLACEMENT FOR SILICONIX SST204

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  $V_{GSS} = -40V$

**SST204 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 SST204 serviceability may be impaired.

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

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Available Packages:

SST204 in SOT-23  
SST204 in bare die.

Please contact Micross for full package and die dimensions

SOT-23 (Top View)

