LSK389 A/B/C/D

Ultra Low Noise Monolithic Dual N-Channel JFET Amplifier

Electrical Characteristics @ 25°C (unless otherwise stated)

SYMBOL	CHARACTERISTIC		MIN	TYP	MAX	UNITS	CONDITIONS
BV _{GSS}	Gate to Source Breakdown Vo	Itage	-40			V	V _{DS} = 0, I _D = -100μA
V _{GS(OFF)}	Gate to Source Pinch-off Volta	ge	-0.3		-1.6	V	V _{DS} = 10V, I _D = 0.1μA
		LSK389A	2.6		6.5		
	Drain to Source Saturation	LSK389B	6		12	mA.	V _{ns} = 10V, V _{ns} = 0
oss	Current	LSK389C	10		20	l IIIA	V _{DS} = 10V, V _{QS} = 0
		LSK389D	17		30	1 1	
I _{GSS}	Gate to Source Leakage Curre	nt		-100	-300	pA	V _{GS} = -25V, V _{DS} = 0
lg162	Gate to Gate Isolation Current			±1.0	±50	nA	V _{G1-G2} = ±45V, I _D = I _S = 0A
Gts	Full Conduction Transconducta	ance	8	20		mS	V _{DS} = 10V, V _{GS} = 0, f = 1kHz
e _n	Noise Voltage			1.3	1.9	nV/√Hz	V _{DS} = 10V, I _D = 2mA, f = 1kHz, NBW = 1Hz
e _n	Noise Voltage			1.5	4.0	nV/√Hz	V _{DS} = 10V, I _D = 2mA, f = 10Hz, NBW = 1Hz
C _{ISS}	Common Source Input Capacit	ance		25		pF	V _{DS} = 10V, V _{GS} = 0, f = 1MHz,
C _{RSS}	Common Source Reverse Tran	nsfer Cap.		5.5		pF	V _{DG} = 10V, I _D = 0, f = 1MHz,

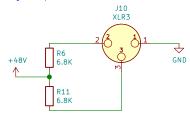
Matching Characteristics @ 25°C (unless otherwise stated)

SYMBOL	CHARACTERISTIC	MIN	TYP	MAX	UNITS	CONDITIONS
Vası – Vasz	Differential Gate to Source Cutoff Voltage		6.0	15	mV	$V_{DS} = 10V, I_D = 1mA$
IDSS1 IDSS2	Saturation Drain Current Ratio	0.9	1.0	1.1	n/a	V _{DS} = 10V, V _{GS} = 0V

Absolute Maximum Ratings@ 25 °C (unless otherwise stated)Maximum Temperatures Storage Temperature-65 to +150°C Junction Operating Temperature-55 to +150°C Maximum Continuous Power Dissipation @ +25°C 400mW Maximum Currents:
Gate Forward CurrentIG(F)= 10mA Maximum Voltages:
Gate to SourceVGSS= 40 VGate to DrainVGDS= 40V

ldss: 4.25 mA

The voltages on pin 2 and 3 is the result from this simplified voltage supply circuit:



All resistors, FETs and capacitators are THT. Use film resistors and X7R caps!

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Title: Balanced amplifier for piezo elements.

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J1 XLR3 Connect outer cable shield and plug s	hield to metal box.
read note concerning pin 2 and 3.	
C2 R5 680pF 450	
R3 (R7	
R1 3.3M T0-71 R9 3.3M C3 22nF C5 6 C2 6 C2	
R2 180 R10 3.3M	×1 (J3 ×1 (J4 ×1 (J5 ×1 (J2
Q1 J112 (or similar) R12 270	×1 < J5 ×1 < J2
D1 D2 1N3518A 1N3518A GN 2x 1N5230B—TR can be used.	
Use shielded cable, with 4 leads.	
Connect outer cable shield to metal box.	

This line represent the outside of a metal box.