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 Voltage		-40			V	V _{DS} = 0, I _D = -100μA	
V _{GS(OFF)}	Gate to Source Pinch-off Voltage		-0.3		-1.6	V	V _{DS} = 10V, I _D = 0.1μA	
		LSK389A	2.6		6.5	mA	V _{OS} = 10V. V _{OS} = 0	
Ines	Drain to Source Saturation	LSK389B	6		12			
loss	Current	LSK389C	10		20		V _{DS} = 10V, V _{GS} = 0	
		LSK389D	17		30			
I _{GSS}	Gate to Source Leakage Current			-100	-300	pA	V _{GS} = -25V, V _{DS} = 0	
la162	Gate to Gate Isolation Current			±1.0	±50	nA	V _{G1-G2} = ±45V, I _D = I _S = 0A	
Gts	Full Conduction Transconductance		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 Capacitance			25		pF	V _{DS} = 10V, V _{GS} = 0, f = 1MHz,	
C _{RSS}	Common Source Reverse Transfer Cap.			5.5		pF	V _{DG} = 10V, I _D = 0, f = 1MHz,	

Matching Characteristics @ 25°C (unless otherwise stated)

SYMBOL			TYP	MAX	UNITS	CONDITIONS
Vası – Vasz			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

Idss: 4.25 mA

VGate to DrainVGDS= 40V

All resistors, FETs and capacitators are THT.
Use high tolerance film resistors and X7R caps! All resistors and caps must be audio grade. All shield connections must be short as possible.

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Title: Bala	anced amp	lifier for	piezo	elements.	
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This line represent the outside of a metal box.

Connect outer cable shield and plug shield to metal box.

XLR3

R5

150

220

LSK170B

2x 1N5230B-TR can be used.

For connection to the piezo crystals: Use shielded cable, with 3 leads. Connect outer cable shield to metal box.

3.3M

R10

3.3M

1N3518A

Outer end of cable shield may be connected to the outer box that houses the crystals if that is used. If not, leave unconnected.

22nF

680pF

220

TO-71

Q2

D1 1N3518A

LSK389B

R1 3.3M

R2 3.3M

22nF

×1_c J3

×1 (J5

×1 C J2

GND

ld: 1/1