

LINEAR SYSTEMS

Twenty-Five Years Of Quality Through Innovation

LS320

HIGH INPUT IMPEDANCE BiFET AMPLIFIER

FEATURES

HIGH INPUT IMPEDANCE $r_{GS} = 100G\Omega$

HIGH TRANSCONDUCTANCE $Y_{FS} = 30,000\mu S$

ABSOLUTE MAXIMUM RATINGS¹

@ 25 °C (unless otherwise stated)

Maximum Temperatures

Storage Temperature -55 to +150 °C

Operating Junction Temperature -55 to +125 °C

Maximum Power Dissipation

Continuous Power Dissipation @ +25 °C 200mW

Maximum Currents

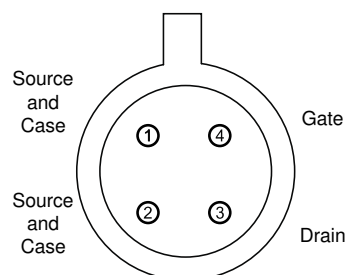
Drain Current $I_D = 25mA$

Maximum Voltages

Drain to Source¹ $V_{DSO} = 20V$

Gate to Source $V_{GSS} = 20V$

TOP VIEW
TO-72

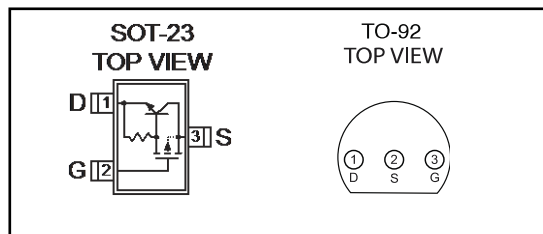


ELECTRICAL CHARACTERISTICS @ 25 °C (unless otherwise stated)

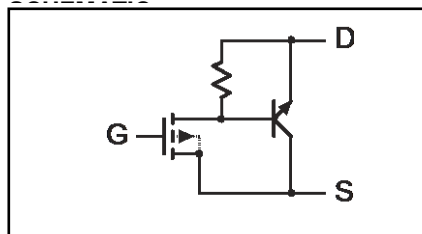
SYMBOL	CHARACTERISTIC	MIN	TYP	MAX	UNITS	CONDITIONS
V_{DS}	Drain to Source Voltage	-20			V	$I_{DS} = 100\mu A$, $V_{GS} = 0V$
V_{GS}	Gate to Source Voltage	-7	-10	-12	V	$I_{DS} = 10mA$, $V_{DS} = -10V^{2,3}$
g_{fs}	Common Source Forward Transconductance	30,000			μS	$I_{DS} = 10mA$, $V_{DS} = -10V$, $f = 1kHz$
g_{oss}	Common Source Output Conductance		300		μS	$I_{DS} = 10mA$, $V_{DS} = -10V$, $f = 1kHz$
r_{GS}	Gate to Source Input Resistance	100			$G\Omega$	$V_{GS} = 0$ to $20V$, T_J to $125\text{ }^{\circ}C$
C_{ISS}	Input Capacitance		8		pF	$I_{DS} = 10mA$, $V_{DS} = -10V$
C_{RSS}	Reverse Transfer Capacitance		1.5		pF	$I_{DS} = 10mA$, $V_{DS} = -10V$
e_n	Noise Voltage		25		μV	$I_{DS} = 10mA$, $V_{DS} = 10V$ $BW = 50$ to $15kHz$

All limits are absolute numbers. Negative signs indicate electrical polarity.

PACKAGE OPTIONS



FUNCTIONAL



1. Absolute maximum ratings are limiting values above which serviceability may be impaired.
2. The gate to source voltage must never exceed 100V, $t < 10\text{ms}$.
3. Additional screening available

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