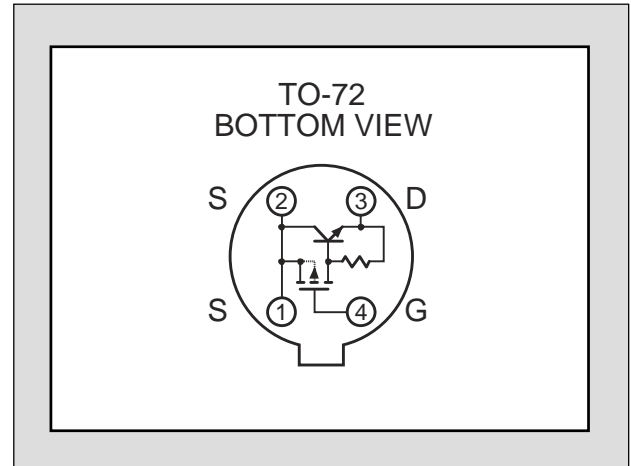


# LS320

## HIGH INPUT IMPEDANCE BIFET AMPLIFIER

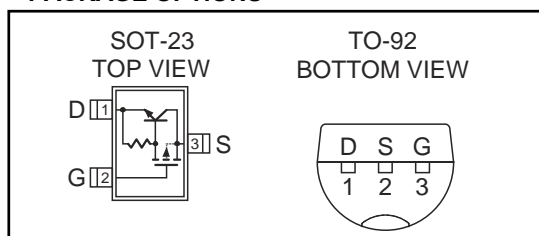
FEATURES	
HIGH INPUT IMPEDANCE	$r_{GS} = 100G\Omega$
HIGH TRANSCONDUCTANCE	$Y_{FS} = 30,000\mu S$
<b>ABSOLUTE MAXIMUM RATINGS<sup>1</sup></b> @ 25 °C (unless otherwise stated)	
<b>Maximum Temperatures</b>	
Storage Temperature	-65 to +150 °C
Operating Junction Temperature	-55 to +125 °C
<b>Maximum Power Dissipation</b>	
Continuous Power Dissipation @ +125 °C	200mW
<b>Maximum Currents</b>	
Drain Current	$I_D = 25mA$
<b>Maximum Voltages</b>	
Drain to Source <sup>1</sup>	$V_{DSO} = 20V$
Gate to Source	$V_{GSS} = 20V$



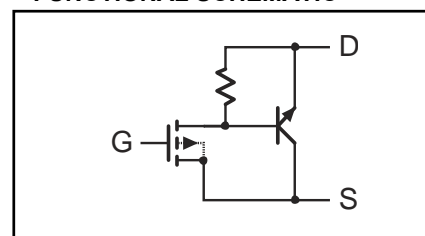
### ELECTRICAL CHARACTERISTICS @ 25 °C (unless otherwise stated)

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	-12	-10	-7	V	$I_{DS} = 10mA, V_{gs} = -10V^{2,3}$
$g_{fs}$	Common Source Forward Transconductance	30,000			$\mu S$	$I_{DS} = 10mA, V_{DS} = -10V, f = 1kHz$
$g_{oss}$	Common Source Output Conductance		300		$\mu S$	$I_{DS} = 10mA, V_{DS} = -10V, f = 1kHz$
$r_{GS}$	Gate to Source Input Resistance	100			$G\Omega$	$V_{GS} = 0 \text{ to } 20V, T_J \text{ to } 125\text{ }^\circ C$
$C_{ISS}$	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		$\mu V$	$I_{DS} = 10mA, V_{DS} = 10V$ BW = 50 to 15kHz

### PACKAGE OPTIONS



### FUNCTIONAL SCHEMATIC



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

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