

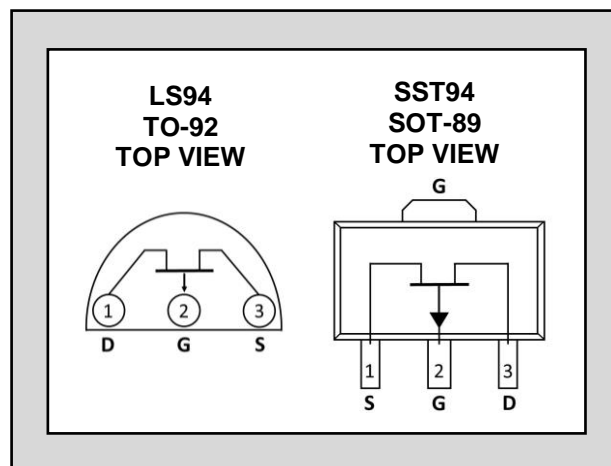
# LINEAR SYSTEMS

Over Three Decades of Quality Through Innovation

## LS94, SST94

GENERAL PURPOSE  
SINGLE P-CHANNEL JFET

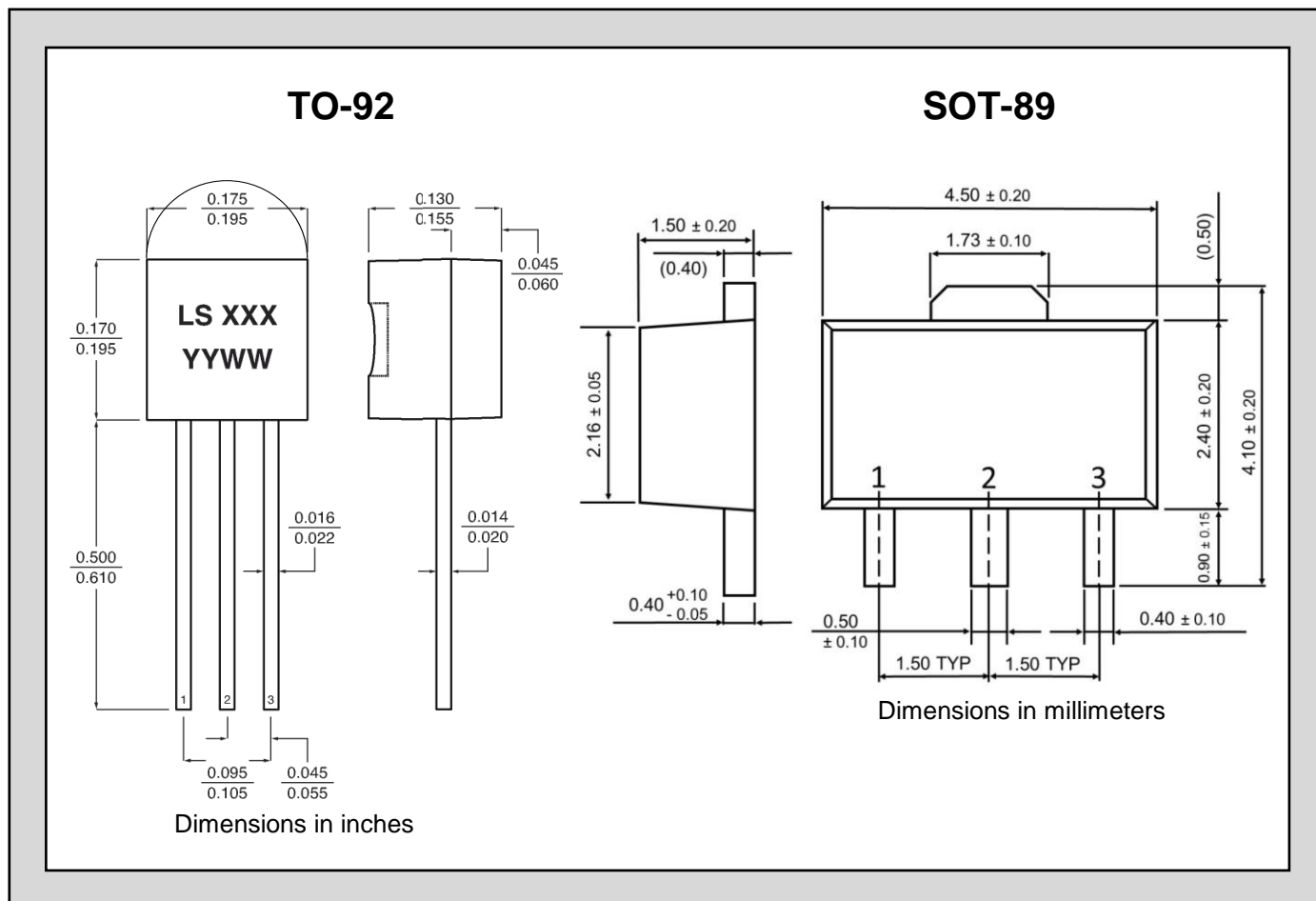
FEATURES	
HIGH GAIN	$G_{fs} = 22\text{mS (typ)}$
HIGH INPUT IMPEDANCE	$I_G = 1.0\text{nA}$
LOW CAPACITANCE	$C_{RSS} = 32\text{pF}$
<b>ABSOLUTE MAXIMUM RATINGS<sup>1</sup></b> @ 25 °C (unless otherwise stated)	
<b>Maximum Temperatures</b>	
Storage Temperature	-55 to +150°C
Junction Operating Temperature	-55 to +135°C
<b>Maximum Power Dissipation</b>	
Continuous Power Dissipation	400mW
<b>Maximum Currents</b>	
Gate Forward Current	$I_{G(F)} = -10\text{mA}$
<b>Maximum Voltages</b>	
Gate to Drain Voltage	$V_{GD} = 25\text{V}$
Gate to Source Voltage	$V_{GS} = 25\text{V}$



\* For equivalent N-Channel, see LS190

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

SYMBOL	CHARACTERISTIC	MIN	TYP	MAX	UNITS	CONDITIONS	
$BV_{GDS}$	Gate to Drain Breakdown Voltage	25			V	$V_{DS} = 0\text{V}, I_G = 100\mu\text{A}$	
$V_{GS(OFF)}$	Gate to Source Pinch-off Voltage	0.15		2		$V_{DS} = -10\text{V}, I_D = -0.1\mu\text{A}$	
$I_{DSS}$	Drain to Source Saturation Current <sup>2</sup>	-2.6		-30	mA	$V_{DS} = -10\text{V}, V_{GS} = 0\text{V}$	
$I_G$	Gate Operating Current		50			$V_{DG} = -10\text{V}, I_D = -1\text{mA}$	
$I_{GSS}$	Gate to Source Leakage Current			1	nA	$V_{GS} = 25\text{V}, V_{DS} = 0\text{V}$	
$G_{fs}$	Full Conductance Transconductance	8	22			$V_{DS} = -10\text{V}, V_{GS} = 0\text{V}, f = 1\text{kHz}$	
$R_{DS(on)}$	Drain to Source on Resistance		75	150	Ω	$V_{GS} = 0\text{V}, I_D = -1\text{mA}$	
$C_{ISS}$	Common Source Input Capacitance		105			pF	$V_{DS} = -10\text{V}, V_{GS} = 0\text{V}, f = 1\text{MHz}$
$C_{RSS}$	Common Source Reverse Transfer Cap.		32				$V_{DS} = -10\text{V}, I_D = 0\text{A}, f = 1\text{MHz}$



### NOTES:

1. Absolute maximum ratings are limiting values above which serviceability may be impaired.
2. Pulse test:  $PW \leq 300 \mu S$ , Duty Cycle  $\leq 3\%$
3. All MIN/TYP/MAX Limits are absolute values. Negative signs indicate negative electrical polarity only.

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