80MHz, 25V/µs Low Power Rail-to-Rail Input and Output Precision Op Amp

October 2001

FEATURES

- **Gain Bandwidth Product: 80MHz**
- **Input Common Mode Range Includes Both Rails**
- **Output Swings Rail-to-Rail**
- **Low Quiescent Current: 2mA Max**
- **Input Offset Voltage: 350µV Max**
- **Input Bias Current: 250nA Max**
- Large Output Current: 50mA Typ
- Low Voltage Noise: 8nV/√Hz
- Slew Rate: 25V/µs
- Common Mode Rejection: 105dB Typ
- Power Supply Rejection: 97dB Typ
- Open-Loop Gain: 85V/mV Typ
- Available in the 8-Pin SO and 5-Pin Low Profile (1mm) ThinSOT™ Packages
- Operating Temperature Range: –40°C to 85°C

APPLICATIONS

- Low Voltage, High Frequency Signal Processing
- Driving A/D Converters
- Rail-to-Rail Buffer Amplifiers
- Active Filters
- Video Line Driver

DESCRIPTION

The LT®1800 is a low power, high speed rail-to-rail input and output operational amplifier with excellent DC performance. The LT1800 features reduced supply current, lower input offset voltage, lower input bias current and higher DC gain than other devices with comparable bandwidth.

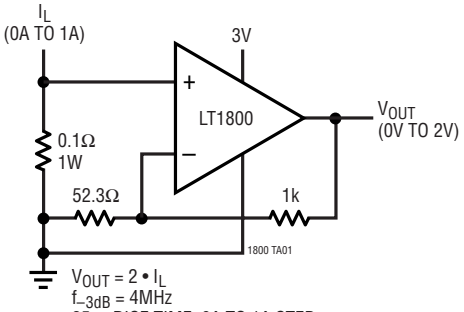
The LT1800 has an input range that includes both supply rails and an output that swings within 20mV of either supply rail to maximize the signal dynamic range in low supply applications.

The LT1800 maintains its performance for supplies from 2.3V to 12.6V and is specified at 3V, 5V and ±5V supplies. The inputs can be driven beyond the supplies without damage or phase reversal of the output.

The LT1800 is available in the 8-pin SO package with the standard op amp pinout and in the 5-pin SOT-23 package. The LT1800 can be used as a plug-in replacement for many op amps to improve input/output range and performance.

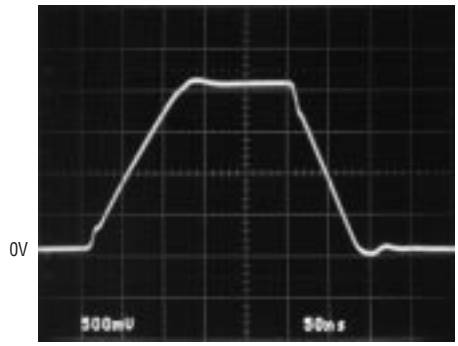
TYPICAL APPLICATION

Fast 1A Current Sense



$V_{OUT} = 2 \bullet I_L$
f_{-3dB} = 4MHz
85ns RISE TIME, 0A TO 1A STEP
UNCERTAINITY DUE TO V_{OS}, I_B < 4mA

Large-Signal Response

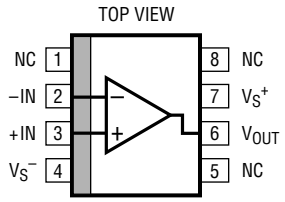


V_S = 3V, 0V
A_V = 1
R_L = 1k

ABSOLUTE MAXIMUM RATINGS (Note 1)

Total Supply Voltage (V_S^- to V_S^+) 12.6V
Input Voltage (Note 2) ..... $\pm V_S$
Input Current (Note 2) ..... ±10mA
Output Short-Circuit Duration (Note 3) ..... Indefinite
Operating Temperature Range (Note 4) .. –40°C to 85°C
Specified Temperature Range (Note 5) ... –40°C to 85°C
Junction Temperature ..... 150°C
Storage Temperature Range ..... –65°C to 150°C
Lead Temperature (Soldering, 10 sec) ..... 300°C

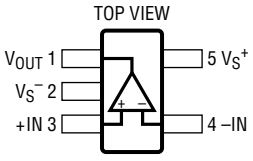
PACKAGE/ORDER INFORMATION



S8 PACKAGE
8-LEAD PLASTIC SO

T_{JMAX} = 150°C, θ_{JA} = 190°C/W

ORDER PART NUMBER
LT1800CS8 LT1800IS8
S8 PART MARKING
1800 1800I



S5 PACKAGE
5-LEAD PLASTIC SOT-23

T_{JMAX} = 150°C, θ_{JA} = 250°C/W

ORDER PART NUMBER
LT1800CS5 LT1800IS5
S5 PART MARKING
LTRN LTRP

Consult LTC Marketing for parts specified with wider operating temperature ranges.

ELECTRICAL CHARACTERISTICS

T_A = 25°C, V_S = 5V, 0V; V_S = 3V, 0V; V_{CM} = V_{OUT} = half supply, unless otherwise noted.

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
V_{OS}	Input Offset Voltage	V_{CM} = 0V V_{CM} = 0V (SOT-23) V_{CM} = V_S V_{CM} = V_S (SOT-23)		75 300 0.5 0.7	350 750 3 3.5	µV µV mV mV
ΔV_{OS}	Input Offset Shift	V_{CM} = 0V to V_S – 1.5V		20	180	µV
I_B	Input Bias Current	V_{CM} = 1V V_{CM} = V_S		25 500	250 1500	nA nA
I_{OS}	Input Offset Current	V_{CM} = 1V V_{CM} = V_S		25 25	200 200	nA nA
	Input Noise Voltage	0.1Hz to 10Hz		0.750		μV_{P-P}
e_n	Input Noise Voltage Density	f = 10kHz		8		$nV/\sqrt{Hz}$
i_n	Input Noise Current Density	f = 10kHz		1.4		$pA/\sqrt{Hz}$
C_{IN}	Input Capacitance			2		pF
A_{VOL}	Large-Signal Voltage Gain	V_S = 5V, V_O = 0.5V to 4.5V, R_L = 1k at $V_S/2$ V_S = 5V, V_O = 1V to 4V, R_L = 100Ω at $V_S/2$ V_S = 3V, V_O = 0.5V to 2.5V, R_L = 1k at $V_S/2$	35 3.5 30	85 8 85		V/mV V/mV V/mV
CMRR	Common Mode Rejection Ratio	V_S = 5V, V_{CM} = 0V to 3.5V V_S = 3V, V_{CM} = 0V to 1.5V	85 78	105 97		dB dB
	Input Common Mode Range		0		V_S	V
PSRR	Power Supply Rejection Ratio	V_S = 2.5V to 10V, V_{CM} = 0V	80	97		dB
	Minimum Supply Voltage (Note 6)			2.3	2.5	V

ELECTRICAL CHARACTERISTICS

T_A = 25°C, V_S = 5V, 0V; V_S = 3V, 0V; V_{CM} = V_{OUT} = half supply, unless otherwise noted.

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
V_{OL}	Output Voltage Swing Low (Note 7)	No Load I_{SINK} = 5mA I_{SINK} = 20mA		12 80 225	50 160 450	mV mV mV
V_{OH}	Output Voltage Swing High (Note 7)	No Load I_{SOURCE} = 5mA I_{SOURCE} = 20mA		16 120 450	60 250 750	mV mV mV
I_{SC}	Short-Circuit Current	V_S = 5V V_S = 3V	20 20	45 40		mA mA
I_S	Supply Current per Amplifier			1.6	2	mA
GBW	Gain Bandwidth Product	Frequency = 2MHz	40	80		MHz
SR	Slew Rate	V_S = 5V, A_V = –1, R_L = 1k, V_O = 4V	13	25		V/µs
FPBW	Full Power Bandwidth	V_S = 5V, V_{OUT} = $4V_{P-P}$		2		MHz
HD	Harmonic Distortion	V_S = 5V, A_V = 1, R_L = 1k, V_O = $2V_{P-P}$, f_C = 1MHz		–75		dBc
t_S	Settling Time	0.01%, V_S = 5V, V_{STEP} = 2V, A_V = 1, R_L = 1k		250		ns
ΔG	Differential Gain (NTSC)	V_S = 5V, A_V = +2, R_L = 150Ω		0.35		%
Δθ	Differential Phase (NTSC)	V_S = 5V, A_V = +2, R_L = 150Ω		0.4		Deg

The ● denotes the specifications which apply over the temperature range of 0°C ≤ T_A ≤ 70°C. V_S = 5V, 0V; V_S = 3V, 0V; V_{CM} = V_{OUT} = half supply, unless otherwise noted.

SYMBOL	PARAMETER	CONDITIONS		MIN	TYP	MAX	UNITS
V_{OS}	Input Offset Voltage	V_{CM} = 0V V_{CM} = 0V (SOT-23) V_{CM} = V_S V_{CM} = V_S (SOT-23)	● ● ● ●		125 300 0.6 0.7	500 1250 3.5 3.75	µV µV mV mV
ΔV_{OS}	Input Offset Shift	V_{CM} = 0V to V_S – 1.5V	●		30	275	µV
V_{OS} TC	Input Offset Voltage Drift (Note 8)	V_{CM} = 0V V_{CM} = V_S	● ●		1.5 1.5		µV/°C µV/°C
I_B	Input Bias Current	V_{CM} = 1V V_{CM} = V_S – 0.2V	● ●		50 550	300 1750	nA nA
I_{OS}	Input Offset Current	V_{CM} = 1V V_{CM} = V_S – 0.2V	● ●		25 25	250 250	nA nA
A_{VOL}	Large-Signal Voltage Gain	V_S = 5V, V_O = 0.5V to 4.5V, R_L = 1k at V_S/2 V_S = 5V, V_O = 1V to 4V, R_L = 100Ω at V_S/2 V_S = 3V, V_O = 0.5V to 2.5V, R_L = 1k at V_S/2	● ● ●	30 3 25	75 6 75		V/mV V/mV V/mV
CMRR	Common Mode Rejection Ratio	V_S = 5V, V_{CM} = 0V to 3.5V V_S = 3V, V_{CM} = 0V to 1.5V	● ●	82 74	101 93		dB dB
	Input Common Mode Range		●	0		V_S	V
PSRR	Power Supply Rejection Ratio	V_S = 2.5V to 10V, V_{CM} = 0V	●	74	91		dB
	Minimum Supply Voltage (Note 6)		●		2.3	2.5	V
V_{OL}	Output Voltage Swing Low (Note 7)	No Load I_{SINK} = 5mA I_{SINK} = 20mA	● ● ●		14 100 300	60 200 550	mV mV mV
V_{OH}	Output Voltage Swing High (Note 7)	No Load I_{SOURCE} = 5mA I_{SOURCE} = 20mA	● ● ●		25 150 600	80 300 950	mV mV mV
I_{SC}	Short-Circuit Current	V_S = 5V V_S = 3V	● ●	20 20	40 30		mA mA
I_S	Supply Current per Amplifier		●		2	2.75	mA
GBW	Gain Bandwidth Product	Frequency = 2MHz	●	35	75		MHz
SR	Slew Rate	V_S = 5V, A_V = –1, R_L = 1k, V_O = $4V_{P-P}$	●	11	22		V/µs

ELECTRICAL CHARACTERISTICS

The ● denotes the specifications which apply over the temperature range of −40°C ≤ T_A ≤ 85°C. V_S = 5V, 0V; V_S = 3V, 0V; V_{CM} = V_{OUT} = half supply, unless otherwise noted. (Note 5)

SYMBOL	PARAMETER	CONDITIONS		MIN	TYP	MAX	UNITS
V_{OS}	Input Offset Voltage	V_{CM} = 0V	●		175	700	µV
		V_{CM} = 0V (SOT-23)	●		400	2000	µV
		V_{CM} = V_S	●		0.75	4	mV
		V_{CM} = V_S (SOT-23)	●		0.9	4	mV
ΔV_{OS}	Input Offset Shift	V_{CM} = 0V to V_S – 1.5V	●		30	300	µV
V_{OS} TC	Input Offset Voltage Drift (Note 8)	V_{CM} = 0V	●		1.5		µV/°C
		V_{CM} = V_S	●		1.5		µV/°C
I_B	Input Bias Current	V_{CM} = 1V	●		50	400	nA
		V_{CM} = V_S – 0.2V	●		600	2000	nA
I_{OS}	Input Offset Current	V_{CM} = 1V	●		25	300	nA
		V_{CM} = V_S – 0.2V	●		25	300	nA
A_{VOL}	Large-Signal Voltage Gain	V_S = 5V, V_O = 0.5V to 4.5V, R_L = 1k at V_S/2	●	25	65		V/mV
		V_S = 5V, V_O = 1.5V to 3.5V, R_L = 100Ω at V_S/2	●	2.5	6		V/mV
		V_S = 3V, V_O = 0.5V to 2.5V, R_L = 1k at V_S/2	●	20	65		V/mV
CMRR	Common Mode Rejection Ratio	V_S = 5V, V_{CM} = 0V to 3.5V	●	81	101		dB
		V_S = 3V, V_{CM} = 0V to 1.5V	●	73	93		dB
	Input Common Mode Range		●	0		V_S	V
PSRR	Power Supply Rejection Ratio	V_S = 2.5V to 10V, V_{CM} = 0V	●	73	90		dB
	Minimum Supply Voltage (Note 6)	V_{CM} = V_O = 0.5V	●		2.3	2.5	V
V_{OL}	Output Voltage Swing Low (Note 7)	No Load	●		15	70	mV
		I_{SINK} = 5mA	●		105	210	mV
		I_{SINK} = 10mA	●		170	400	mV
V_{OH}	Output Voltage Swing High (Note 7)	No Load	●		25	90	mV
		I_{SOURCE} = 5mA	●		150	350	mV
		I_{SOURCE} = 10mA	●		300	700	mV
I_{SC}	Short-Circuit Current	V_S = 5V	●	12.5	30		mA
		V_S = 3V	●	12.5	30		mA
I_S	Supply Current per Amplifier		●		2.1	3	mA
GBW	Gain Bandwidth Product	Frequency = 2MHz	●	30	70		MHz
SR	Slew Rate	V_S = 5V, A_V = –1, R_L = 1k, V_O = 4V	●	10	18		V/µs

ELECTRICAL CHARACTERISTICS

T_A = 25°C, V_S = ±5V, V_{CM} = 0V, V_{OUT} = 0V, unless otherwise noted.

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
V_{OS}	Input Offset Voltage	$V_{CM} = V_S^-$ $V_{CM} = V_S^-$ (SOT-23) $V_{CM} = V_S^+$ $V_{CM} = V_S^+$ (SOT-23)		150 400 0.7 1	500 1000 3.5 4.5	µV µV mV mV
ΔV_{OS}	Input Offset Shift	$V_{CM} = V_S^-$ to $V_S^+ - 1.5V$		30	475	µV
I_B	Input Bias Current	$V_{CM} = V_S^- + 1V$ $V_{CM} = V_S^+$		25 400	350 1500	nA nA
I_{OS}	Input Offset Current	$V_{CM} = V_S^- + 1V$ $V_{CM} = V_S^+$		20 20	250 250	nA nA
	Input Noise Voltage	0.1Hz to 10Hz		1		μV_{P-P}
e_n	Input Noise Voltage Density	f = 10kHz		8		$nV/\sqrt{Hz}$
i_n	Input Noise Current Density	f = 10kHz		1.2		$pA/\sqrt{Hz}$
C_{IN}	Input Capacitance	f = 1000kHz		2		pF
A_{VOL}	Large-Signal Voltage Gain	V_O = –4V to 4V, R_L = 1k V_O = –2V to 2V, R_L = 100Ω	25 2.5	70 7		V/mV V/mV
CMRR	Common Mode Rejection Ratio	$V_{CM} = V_S^-$ to 3.5V	85	109		dB
	Input Common Mode Range		V_S^-		V_S^+	V
PSRR	Power Supply Rejection Ratio	V_S^+ = 2.5V to 10V, V_S^- = 0V	80	97		dB
V_{OL}	Output Voltage Swing Low (Note 7)	No Load I_{SINK} = 5mA I_{SINK} = 20mA		15 85 225	60 170 450	mV mV mV
V_{OH}	Output Voltage Swing High (Note 7)	No Load I_{SOURCE} = 5mA I_{SOURCE} = 20mA		17 130 450	70 260 750	mV mV mV
I_{SC}	Short-Circuit Current		30	50		mA
I_S	Supply Current per Amplifier			1.8	2.75	mA
GBW	Gain Bandwidth Product	Frequency = 2MHz		70		MHz
SR	Slew Rate	A_V = –1, R_L = 1k, V_O = ±4V, Measured at V_O = ±2V		23		V/µs
FPBW	Full Power Bandwidth	$V_O = 8V_{P-P}$		0.9		MHz
HD	Harmonic Distortion	A_V = 1, R_L = 1k, $V_O = 2V_{P-P}$, f_C = 1MHz		–75		dBc
t_S	Settling Time	0.01%, V_{STEP} = 5V, A_V = 1V, R_L = 1k		300		ns
ΔG	Differential Gain (NTSC)	A_V = +2, R_L = 150Ω		0.35		%
$\Delta\theta$	Differential Phase (NTSC)	A_V = +2, R_L = 150Ω		0.2		Deg

ELECTRICAL CHARACTERISTICS

The ● denotes the specifications which apply over the temperature range of 0°C ≤ T_A ≤ 70°C. V_S = ±5V, V_{CM} = 0V, V_{OUT} = 0V, unless otherwise noted.

SYMBOL	PARAMETER	CONDITIONS		MIN	TYP	MAX	UNITS
V_{OS}	Input Offset Voltage	$V_{CM} = V_S^-$	●		200	800	µV
		$V_{CM} = V_S^-$ (SOT-23)	●		450	1500	µV
		$V_{CM} = V_S^+$	●		0.75	4	mV
		$V_{CM} = V_S^+$ (SOT-23)	●		1	5	mV
ΔV_{OS}	Input Offset Shift	$V_{CM} = V_S^-$ to $V_S^+ – 1.5V$	●		45	675	µV
V_{OS} TC	Input Offset Voltage Drift (Note 8)	$V_{CM} = V_S^-$	●		1.5		µV/°C
		$V_{CM} = V_S^+$	●		1.5		µV/°C
I_B	Input Bias Current	$V_{CM} = V_S^- + 1V$	●		30	400	nA
		$V_{CM} = V_S^+ – 0.2V$	●		450	1750	nA
I_{OS}	Input Offset Current	$V_{CM} = V_S^- + 1V$	●		25	300	nA
		$V_{CM} = V_S^+ – 0.2V$	●		25	300	nA
A_{VOL}	Large-Signal Voltage Gain	V_O = –4V to 4V, R_L = 1k	●	20	55		V/mV
		V_O = –2V to 2V, R_L = 100Ω	●	2	5		V/mV
CMRR	Common Mode Rejection Ratio	$V_{CM} = V_S^-$ to 3.5V	●	82	105		dB
	Input Common Mode Range		●	V_S^-		V_S^+	V
PSRR	Power Supply Rejection Ratio	V_S^+ = 2.5V to 10V, V_S^- = 0V	●	74	91		dB
V_{OL}	Output Voltage Swing Low (Note 7)	No Load	●		17	70	mV
		I_{SINK} = 5mA	●		105	210	mV
		I_{SINK} = 20mA	●		250	575	mV
V_{OH}	Output Voltage Swing High (Note 7)	No Load	●		25	90	mV
		I_{SOURCE} = 5mA	●		150	310	mV
		I_{SOURCE} = 20mA	●		600	975	mV
I_{SC}	Short-Circuit Current		●	25	45		mA
I_S	Supply Current per Amplifier		●		2.4	3.5	mA
GBW	Gain Bandwidth Product	Frequency = 2MHz	●		70		MHz
SR	Slew Rate	A_V = –1, R_L = 1k, V_O = ±4V, Measured at V_O = ±2V	●		20		V/µs

ELECTRICAL CHARACTERISTICS

The ● denotes the specifications which apply over the temperature range of $-40°C \le T_A \le 85°C$. $V_S = \pm 5V$, $V_{CM} = 0V$, $V_{OUT} = 0V$, unless otherwise noted.

SYMBOL	PARAMETER	CONDITIONS		MIN	TYP	MAX	UNITS
V_{OS}	Input Offset Voltage	$V_{CM} = V_S^-$	●		350	900	µV
		$V_{CM} = V_S^-$ (SOT-23)	●		500	2250	µV
		$V_{CM} = V_S^+$	●		0.75	4.5	mV
		$V_{CM} = V_S^+$ (SOT-23)	●		1	5.5	mV
ΔV_{OS}	Input Offset Shift	$V_{CM} = V_S^-$ to $V_S^+ - 1.5V$	●		50	750	µV
V_{OS} TC	Input Offset Voltage Drift (Note 8)	$V_{CM} = V_S^-$	●		1.5		µV/°C
		$V_{CM} = V_S^+$	●		1.5		µV/°C
I_B	Input Bias Current	$V_{CM} = V_S^- + 1V$	●		50	450	nA
		$V_{CM} = V_S^+ - 0.2V$	●		450	2000	nA
I_{OS}	Input Offset Current	$V_{CM} = V_S^- + 1V$	●		25	350	nA
		$V_{CM} = V_S^+ - 0.2V$	●		25	350	nA
A_{VOL}	Large-Signal Voltage Gain	$V_O = -4V$ to $4V$, $R_L = 1k$	●	16	55		V/mV
		$V_O = -1V$ to $1V$, $R_L = 100\Omega$	●	2	5		V/mV
CMRR	Common Mode Rejection Ratio	$V_{CM} = V_S^-$ to $3.5V$	●	81	104		dB
	Input Common Mode Range		●	V_S^-		V_S^+	V
PSRR	Power Supply Rejection Ratio	$V_S^+ = 2.5V$ to $10V$, $V_S^- = 0V$	●	73	90		dB
V_{OL}	Output Voltage Swing Low (Note 7)	No Load	●		15	80	mV
		$I_{SINK} = 5mA$	●		105	220	mV
		$I_{SINK} = 10mA$	●		170	400	mV
V_{OH}	Output Voltage Swing High (Note 7)	No Load	●		25	100	mV
		$I_{SOURCE} = 5mA$	●		150	350	mV
		$I_{SOURCE} = 10mA$	●		300	700	mV
I_{SC}	Short-Circuit Current		●	12.5	30		mA
I_S	Supply Current per Amplifier		●		2.6	4	mA
GBW	Gain Bandwidth Product	Frequency = 2MHz	●		65		MHz
SR	Slew Rate	$A_V = -1$, $R_L = 1k$, $V_O = \pm 4V$, Measured at $V_O = \pm 2V$	●		15		V/µs

Note 1: Absolute Maximum Ratings are those values beyond which the life of the device may be impaired.

Note 2: The inputs are protected by back-to-back diodes and by ESD diodes to the supply rails. If the differential input voltage exceeds 1.4V or either input goes outside the rails, the input current should be limited to less than 10mA.

Note 3: A heat sink may be required to keep the junction temperature below the absolute maximum rating when the output is shorted indefinitely.

Note 4: The LT1800/LT1800I are guaranteed functional over the temperature range of –40°C to 85°C.

Note 5: The LT1800C is guaranteed to meet specified performance from 0°C to 70°C. The LT1800C is designed, characterized and expected to meet specified performance from –40°C to 85°C but is not tested or QA sampled at these temperatures. The LT1800I is guaranteed to meet specified performance from –40°C to 85°C.

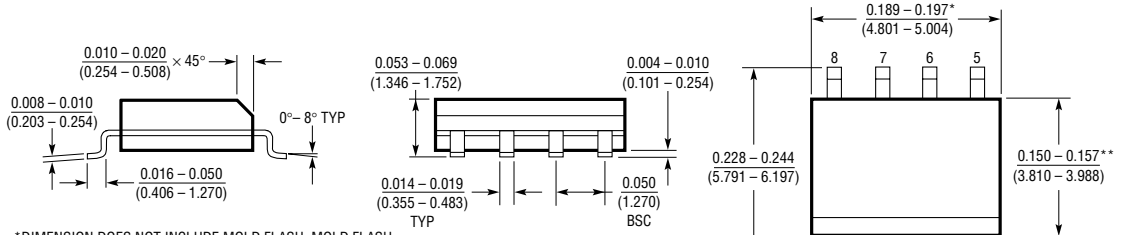
Note 6: Minimum supply voltage is guaranteed by power supply rejection ratio test.

Note 7: Output voltage swings are measured between the output and power supply rails.

Note 8: This parameter is not 100% tested.

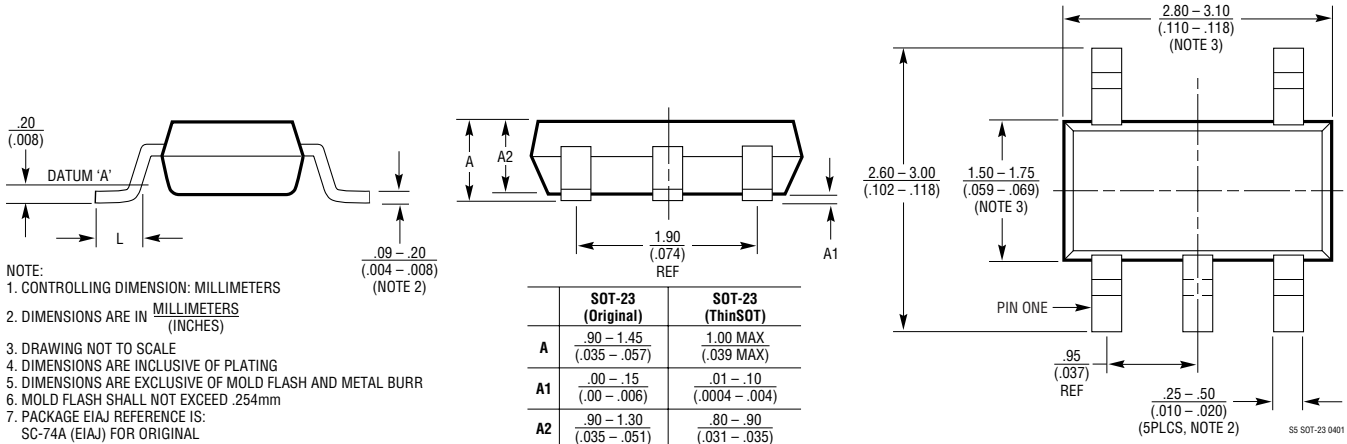
PACKAGE DESCRIPTION

S8 Package
8-Lead Plastic Small Outline (Narrow .150 Inch)
(Reference LTC DWG # 05-08-1610)



*DIMENSION DOES NOT INCLUDE MOLD FLASH. MOLD FLASH SHALL NOT EXCEED 0.006" (0.152mm) PER SIDE
**DIMENSION DOES NOT INCLUDE INTERLEAD FLASH. INTERLEAD FLASH SHALL NOT EXCEED 0.010" (0.254mm) PER SIDE

S5 Package
5-Lead Plastic SOT-23
(Reference LTC DWG # 05-08-1633)
(Reference LTC DWG # 05-08-1635)



NOTE:
1. CONTROLLING DIMENSION: MILLIMETERS
2. DIMENSIONS ARE IN $\frac{\text{MILLIMETERS}}{\text{(INCHES)}}$
3. DRAWING NOT TO SCALE
4. DIMENSIONS ARE INCLUSIVE OF PLATING
5. DIMENSIONS ARE EXCLUSIVE OF MOLD FLASH AND METAL BURR
6. MOLD FLASH SHALL NOT EXCEED .254mm
7. PACKAGE EIAJ REFERENCE IS:
SC-74A (EIAJ) FOR ORIGINAL
JEDEC MO-193 FOR THIN

	SOT-23 (Original)	SOT-23 (ThinSOT)
A	.90 – 1.45 (.035 – .057)	1.00 MAX (.039 MAX)
A1	.00 – .15 (.00 – .006)	.01 – .10 (.0004 – .004)
A2	.90 – 1.30 (.035 – .051)	.80 – .90 (.031 – .035)
L	.35 – .55 (.014 – .021)	.30 – .50 REF (.012 – .019 REF)

RELATED PARTS

PART NUMBER	DESCRIPTION	COMMENTS
LT1498/LT1499	Dual/Quad 10MHz, 6V/µs Rail-to-Rail Input and Output C-Load™ Op Amps	High DC Accuracy, 475µV $V_{OS(MAX)}$, 4µV/°C Max Drift, Max Supply Current 2.2mA per Amp
LT1630/LT1631	Dual/Quad 30MHz, 10V/µs Rail-to-Rail Input and Output Op Amps	High DC Accuracy, 525µV $V_{OS(MAX)}$, 70mA Output Current, Max Supply Current 4.4mA per Amplifier
LT1806/LT1807	Single/Dual 325MHz, 140V/µs Rail-to-Rail Input and Output Op Amps	High DC Accuracy, 550µV $V_{OS(MAX)}$, Low Noise 3.5nV/$\sqrt{Hz}$, Low Distortion –80dB at 5MHz

C-Load is a trademark of Linear Technology Corporation.

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1800i LT/TP 1001 1.5K • PRINTED IN USA