

ABSOLUTE MAXIMUM RATINGS

(Notes 1 and 2)

Supply Voltage	9.5V
Input Voltage on Pins 1, 6 and 7	
(Note 2)	$-0.3V \leq V_{IN} \leq V^+ + 0.3V$
Current into Pin 6	20 μ A
Output Short Circuit Duration	
($V^+ \leq 5.5V$)	Continuous
Operating Temperature Range	$-40^\circ\text{C} \leq T_A \leq 85^\circ\text{C}$
Storage Temperature Range	-65°C to $+150^\circ\text{C}$
Lead Temperature (Soldering, 10 sec.)	300 $^\circ\text{C}$

PACKAGE/ORDER INFORMATION

TOP VIEW S8 PACKAGE PLASTIC SO	ORDER PART NUMBER
	LTC1044CS8
	PART MARKING
	1044

ELECTRICAL CHARACTERISTICS $V^+ = 5V$, $T_A = 25^\circ\text{C}$, unless otherwise specified.

See LTC1044/7660 data sheet for test circuit.

SYMBOL	PARAMETER	CONDITIONS	LTC1044CS8			UNITS
			MIN	TYP	MAX	
I_S	Supply Current	$R_L = \infty$, Pins 1 and 7 No Connection $R_L = \infty$, Pins 1 and 7 $V = 3V$		60 20	200	μA μA
V^+_{L}	Minimum Supply Voltage	$R_L = 10k$	1.5			V
V^+_{H}	Maximum Supply Voltage	$R_L = 10k$ (Note 3)			9	V
R_{OUT}	Output Resistance	$I_L = 200mA$, $f_{OSC} = 5kHz$ $V^+ = 2V$, $I_L = 3mA$, $f_{OSC} = 1kHz$			100 130 325	Ω Ω Ω
f_{OSC}	Oscillator Frequency	$C_{OSC} = 1pF$ (Note 4) $V^+ = 5V$ $V^+ = 2V$	5 1			kHz kHz
P_{EFF}	Power Efficiency	$R_L = 5k\Omega$, $f_{OSC} = 5kHz$	95	98		%
V_{OUTEFF}	Voltage Conversion Efficiency	$R_L = \infty$	97	99.9		%
I_{OSC}	Oscillator Sink or Source Current	$V_{OSC} = 0V$ or V^+ Pin 1 = $0V$ Pin 1 = V^+			3 20	μA μA

The ● denotes the specifications which apply over the full operating temperature range.

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

Note 2: Connecting any input terminal to voltages greater than V^+ or less than ground may cause destructive latch-up. It is recommended that no inputs from sources operating from external supplies be applied prior to power-up of the LTC1044.

Note 3: The LTC1044 is guaranteed to operate with alkaline, mercury or NiCad 9V batteries, even though the initial battery voltage may be slightly higher than 9.0V.

Note 4: f_{OSC} is tested with $C_{OSC} = 100pF$ to minimize the effects of test fixture capacitance loading. The 1pF frequency is correlated to this 100pF test point, and is intended to simulate the capacitance at pin 7 when the device is plugged into a test socket and no external capacitor is used.