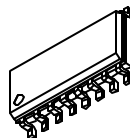
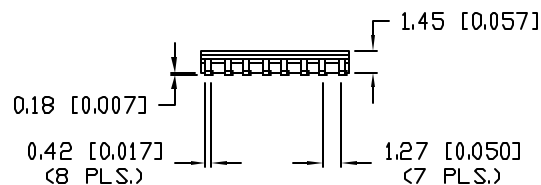
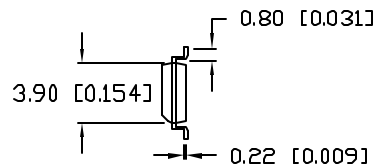
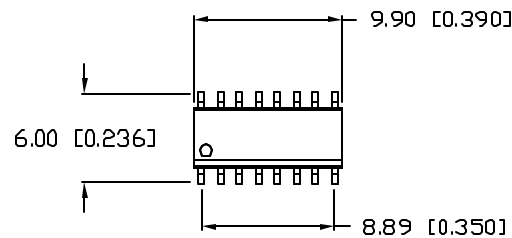
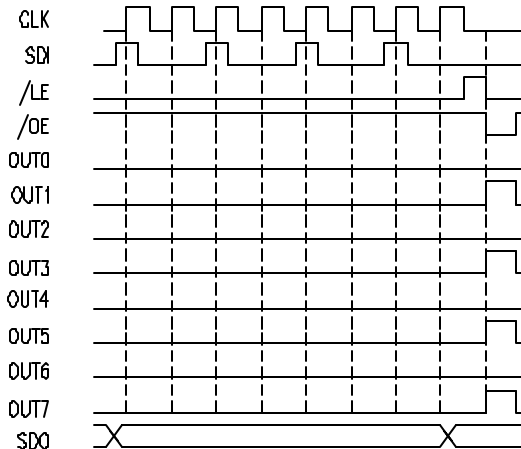


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TIMING DIAGRAM

PIN OUT		
PIN NO.	PIN NAME	FUNCTION
1	GND	GND TERMINAL
2	SDI	SERIAL DATA INPUT
3	CLK	CLOCK INPUT
4	/LE	LATCH INPUT
5~12	OUT 0~7	OUTPUT
13	/OE	OUTPUT ENABLE
14	SDO	SERIAL DATA OUTPUT
15	R-EXT	CONSTANT CURRENT PROG.
16	VDD	5V SUPPLY



*UNLESS OTHERWISE SPECIFIED TOLERANCES PER DECIMAL PRECISION ARE: X=±1 (±0.039), X.X=±0.5 (±0.020), X.XX=±0.25 (±0.010), X.XXX=±0.127 (±0.005).

PART NUMBER		REV.
LSD-LXS0816SOP		A
REV.	E.C.N. NUMBER AND REVISION COMMENTS	DATE
A	E.C.N. #11148.	01.24.07

ELECTRICAL CHARACTERISTICS $T_A=25^\circ\text{C}$

PARAMETER	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
INPUT VOLTAGE "H"	V_{IH}		0.7 V_{DD}		V_{DD}	V
INPUT VOLTAGE "L"	V_{IL}		GND		0.3 V_{DD}	V
OUTPUT LEAKAGE	I_{OH}	$V_{OH}=17.0\text{V}$			10	μA
OUTPUT VOLTAGE	V_{OL}	$I_{OL}=+1.0\text{mA}$			0.4	V
SERIAL OUT	V_{OH}	$I_{OH}=-1.0\text{mA}$				V
OUTPUT CURRENT 1	I_{OL1}	$V_{CE}=0.8\text{V}$, $R_{EXT}=865\Omega$		40		mA
CURRENT SKEW	dI_{OL1}		±1.5	±6.0		%
OUTPUT CURRENT 2	I_{OL2}	$V_{CE}=1.2\text{V}$, $R_{EXT}=330\Omega$		80		mA
CURRENT SKEW	dI_{OL2}		±1.5	±6.0		%
PULL-UP RESISTOR	$R_{IN(UP)}$		150	300	600	$k\Omega$
PULL-DOWN RESISTOR	$R_{IN(DOWN)}$		85	200	400	$k\Omega$
SUPPLY CURRENT						
OUTPUTS "OFF"	$I_{DD(off)1}$	$R_{EXT}=OPEN$		0.1	1.0	mA
	$I_{DD(off)2}$	$R_{EXT}=865\Omega$	0.1	0.2	1.0	mA
	$I_{DD(off)3}$	$R_{EXT}=330\Omega$	0.1	0.2	1.0	mA
OUTPUTS "ON"	$I_{DD(on)1}$	$R_{EXT}=865\Omega$	7.0	12.0	18.0	mA
	$I_{DD(on)2}$	$R_{EXT}=330\Omega$	10.0	22.0	32.0	mA

LIMITS OF SAFE OPERATION AT 25°C

PARAMETER	MAX	UNITS
SUPPLY VOLTAGE	0~+7.0	V
OUTPUT VOLTAGE	-0.5~+17.0	V
OUTPUT CURRENT	+90	mA
INPUT VOLTAGE	-0.4~ $V_{DD}+0.4$	V
GND TERMINAL CURRENT	720	mA
CLOCK FREQUENCY	20	MHz
POWER DISSIPATION	+0.78	W
OPERATING TEMPERATURE	-40 TO +85	$^\circ\text{C}$
STORAGE TEMPERATURE	-55 TO +150	$^\circ\text{C}$



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REV.

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PART NUMBER

LSD-LXS0816SOP

8-BIT CONSTANT CURRENT LED SINK DRIVER,
16 PIN SOP PACKAGE.

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RELIABILITY NOTE

OUR MANY YEARS OF EXPERIENCE DATA ACCUMULATION INDICATE THAT SOLDER HEAT IS A MAJOR CAUSE OF EARLY AND FUTURE FAILURE. PLEASE PAY ATTENTION TO YOUR SOLDERING PROCESS.



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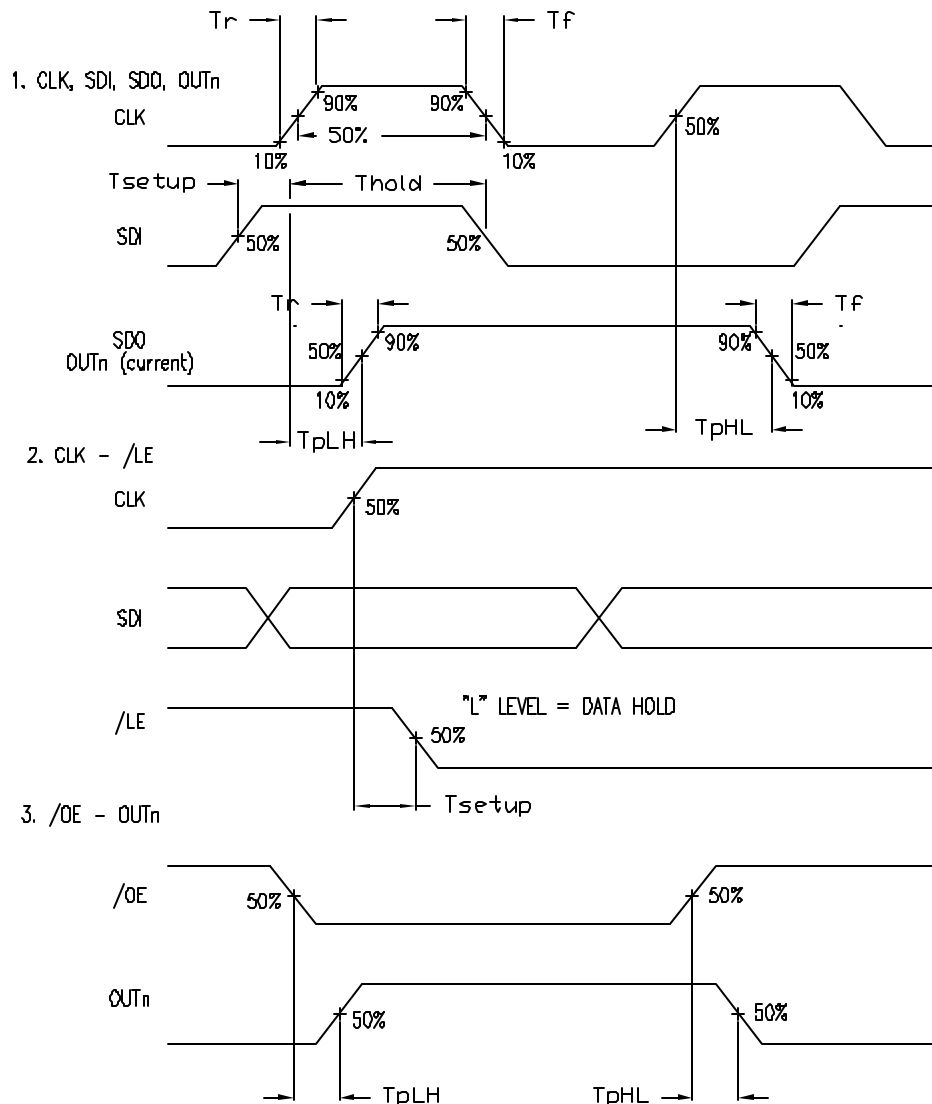
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DATE: 2.12.02

PAGE: 1 OF 2

SCALE: N/A

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PART NUMBER
LSD-LXS0816SOP

REV.
A

REV. E.C.N. NUMBER AND REVISION COMMENTS
A SEE PAGE 1

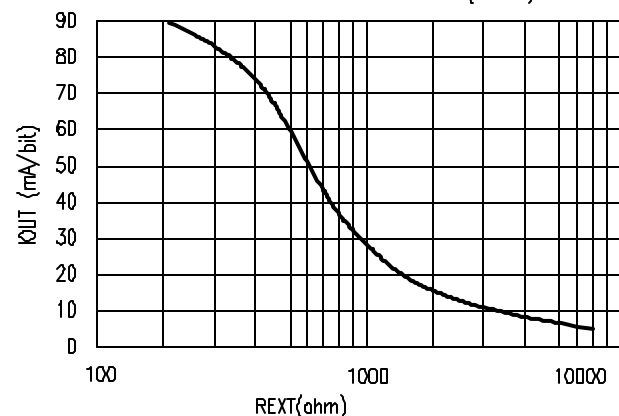
DATE

SWITCHING CHARACTERISTICS $T_A=25^\circ\text{C}$

PARAMETER		MIN	TYP	MAX	UNIT
PROPAGATION DELAY TIME (L ~ H)	INn-OUTn		200	300	nS
	/LE-OUTn		200	300	nS
	/OE-OUTn		200	300	nS
	CLK-SOUT		50	70	nS
PROPAGATION DELAY TIME (H ~ L)	INn-OUTn		200	300	nS
	/LE-OUTn		200	300	nS
	/OE-OUTn		200	300	nS
	CLK-SOUT		50	70	nS
PULSE WIDTH	CLK	15		20	nS
	/LE	20		30	nS
SET-UP TIME FOR LATCH		10		20	nS
HOLD TIME EFOR LATCH		10		25	nS
MAX CLK RISE TIME				5	nS
MAX CLK FALL TIME				5	nS
OUTPUT RISE TIME			150	200	nS
OUTPUT FALL TIME			150	200	nS

* TEST CONDITIONS: VDD=5.0V, VCE=0.8V, VIH=VDD, VIL=GND, REXT=865Ω, IOUT=40mA, VL=3.4V, RL=65Ω, CL=10.5pF

8 BIT LED DRIVER REXT-IOUT (BLACK)



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8-BIT CONSTANT CURRENT LED SINK DRIVER,
16 PIN SOP PACKAGE.

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