

DATE	REVISIONS	REV
5-22-98	E.C.N. #10404. & #10BRDR. & REDRAWN./	A
8-14-98	E.C.N. #10450./	B

DRAWING NUMBER	REV
SML-LX1210LBI-SRD	B

UNCONTROLLED DOCUMENT

ELECTRO-OPTICAL CHARACTERISTICS $T_a = -25^\circ\text{C}$

BATTERIES	3	4	5	6	UNITS
PEAK WAVELENGTH:	660				nm
INPUT VOLTAGE (V_{in})	4.5	6.0	7.5	9	V
DETECTION VOLTAGE (V_d)	3.75	5.0	6.25	7.5	V
AXIAL INTENSITY (μcd)*	10	10	10	10	μcd
STANDBY CURRENT (I_{in})*	5	5	5	5	μA
HYSTERESIS VOLTAGE (V_{hyst})	150	200	250	300	mV
OUTPUT SINK CURRENT (I_{sink})*	10.5	10.5	10.5	10.5	mA
VIEWING ANGLE (TYP)	60	60	60	60	2x theta
EMITTED COLOR:	RED				
EPDXY FINISH:	RED DIFFUSED				

* = TEST CON. @ 10.5mA

** = TEST CON. @ INPUT VOLTAGE PER BATTERY COUNT

*** = TEST CON. @ DETECTION VOLTAGE PER BATTERY COUNT

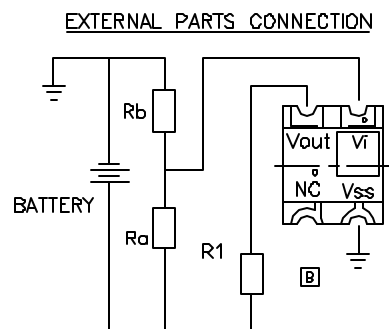
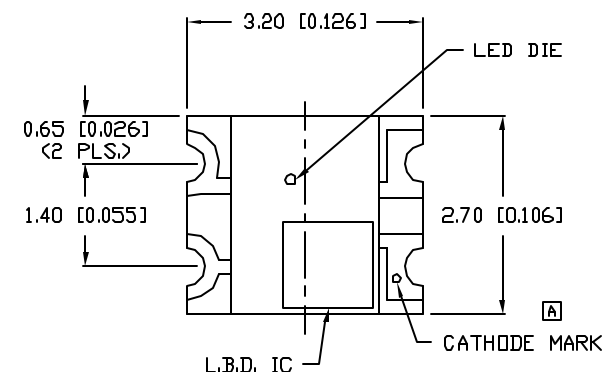
NOTES:

- $V_D \approx \frac{R_a + R_b}{R_b} \times 2.5V$ $V_{hyst} \approx \frac{R_a + R_b}{R_b} \times 100\text{mV}$
- PLEASE NOTE THAT WHEN VALUE OF R_a BECOMES EXCESSIVELY LARGE, THE DETECTION VOLTAGE MAY DIFFER FROM THE VALUE CALCULATED BY THE USE OF THE ABOVE FORMULA.
- R1 IS OPTIONAL FOR LIMITING OUTPUT CURRENT.
- $R_a + R_b < \frac{V_{bat}}{I_{in}} \times E\%$, $I_{in} \ll I_R$, $E\%$ = RESISTOR TOLERANCE

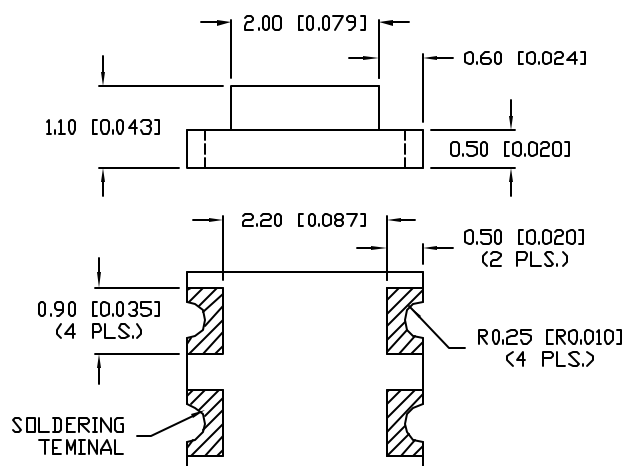
RELIABILITY NOTE

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.

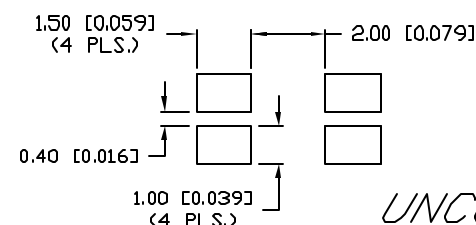
[A]



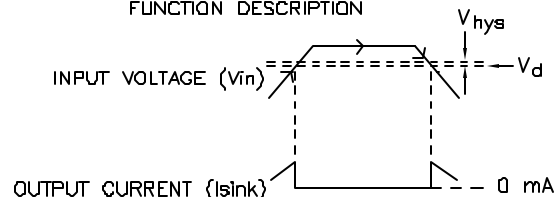
THREE TO SIX BATTERY DETECTION



RECOMMENDED PAD LAYOUT



FUNCTION DESCRIPTION



UNCONTROLLED DOCUMENT

UNLESS OTHERWISE SPECIFIED TOLERANCE IS $\pm 0.25\text{mm}$ ($\pm 0.010''$)

DU

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DATE: 1-15-97	DWN:	CHK'D:	APPD:
SCALE: N/A			

2.7mm x 3.2mm P.C.B., SURFACE MOUNT LED, SUPER RED, WATER CLEAR LENS, LOW BATTERY INDICATOR.

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