

UNCONTROLLED DOCUMENT

PART NUMBER
CCL-CRS10R

REV.
F

REV.	E.C.N. NUMBER AND REVISION COMMENTS	DATE
A	REDRAWN.	4.27.93
B	E.C.N. #10390. & #10BRDR & REDRAWN.	10.2.98
C	E.C.N. #10484. ADDED SOLDER SPECS.	12.11.98
D	E.C.N. #10695. & REDRAWN IN 3D.	1.12.01
E	E.C.N. #10967.	3.14.03
F	E.C.N. #11148.	12.01.06

ELECTRO-OPTICAL CHARACTERISTICS $T_A=25^\circ\text{C}$ $I_f=20\text{mA}$

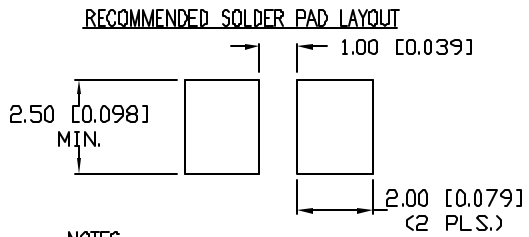
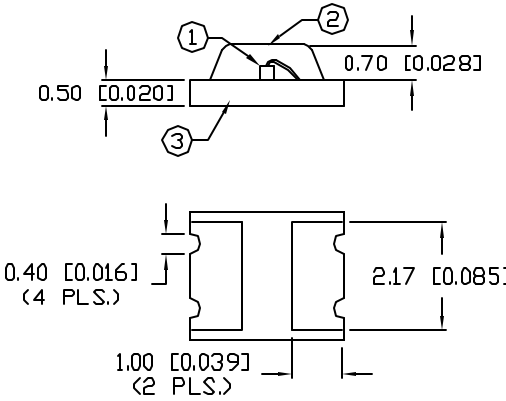
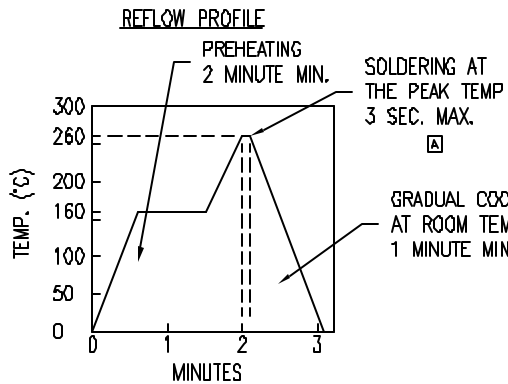
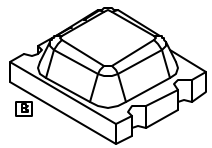
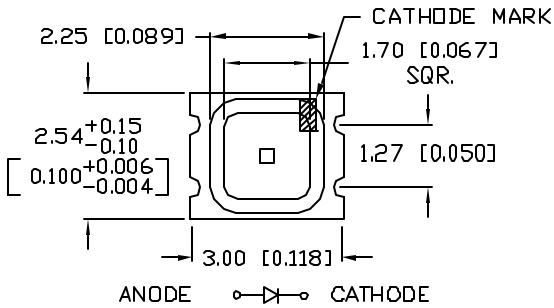
PARAMETER	MIN	TYP	MAX	UNITS	TEST COND
PEAK WAVELENGTH		635		nm	
FORWARD VOLTAGE		2.0	2.5	V_f	
REVERSE VOLTAGE	4.0			V_r	$I_f=100\mu\text{A}$
AXIAL INTENSITY		12		mcd	$I_f=20\text{mA}$
VIEWING ANGLE		180		$2x$ theta	
EMITTED COLOR:	RED				
EPOXY LENS FINISH:	WATER CLEAR				

LIMITS OF SAFE OPERATION AT 25°C PER CHIP

PARAMETER	MAX	UNITS
PEAK FORWARD CURRENT*	100	mA
STEADY CURRENT	25	mA
POWER DISSIPATION	65	mW
DERATE FROM 25°C	-.33	mW/ $^\circ\text{C}$
OPERATING TEMP.	-30 TO +75	$^\circ\text{C}$
STORAGE TEMP.	-40 TO +85	$^\circ\text{C}$

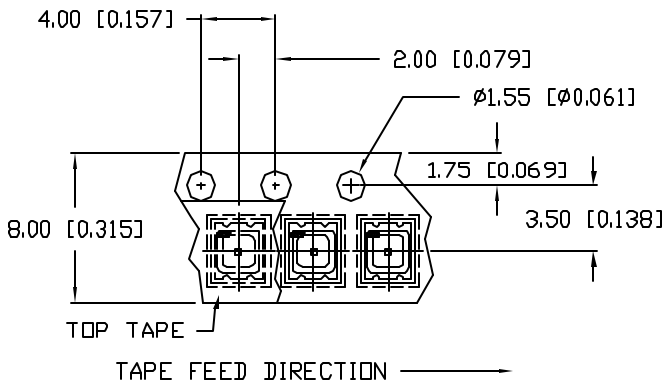
* $t < 10\mu\text{s}$

SOLDER HEAT PROOF TEST:	DIPPING FOR 5 SEC. AT 250°C , 2 TIMES.
THERMAL SHOCK TEST:	15 MIN. AT $+90^\circ\text{C}$, AND 15 MIN. AT -30°C , 25 CYCLES.
VIBRATION TEST:	50Hz, FULL AMPLITUDE WIDTH; 1.5mm, 2 HOURS VERTICALLY AND HORIZONTALLY, RESPECTIVELY.
MOISTURE TEST:	$T_a=60^\circ\text{C}$, $R_h=90\%$, 1,000 HOURS.
IRON SOLDERING:	20W IRON (SHARP TIP), $280-320^\circ\text{C}$, 5 SEC. MAX.,
SOLDER DIP METHODE:	TEMP. IS $240-260^\circ\text{C}$ AND TIME IS WITHIN 10 SEC.
RE-FLOW SOLDERING:	SEE CHART.



- NOTES:
- PART SUPPLIED ON SUPER 8 TAPE AND REEL, 3,000 PIECES PER REEL.
 - THE CATHODE IS ORIENTED TOWARDS THE TAPE SPROCKET HOLE.
 - WHITE CERAMIC CARRIER.

CAUTION: MOISTURE SENSITIVE DEVICE PER JEDEC LEVEL 4 STANDARDS



*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). LEAD SIZE=±0.05 (±0.002), LEAD LENGTH=±0.75 (±0.030), MIN.=^{+DECIMAL PRECISION}-0.00 MAX.=^{+0.00}-DECIMAL PRECISION

UNCONTROLLED DOCUMENT

REV. **F** PART NUMBER **CCL-CRS10R**

3.0mm x 2.5mm CERAMIC SURFACE MOUNT LED,
635nm RED LED, WATER CLEAR LENS.

CONFIDENTIAL INFORMATION
THE INFORMATION CONTAINED IN THIS DOCUMENT IS THE PROPERTY OF LUMEX INC. EXCEPT AS SPECIFICALLY AUTHORIZED IN WRITING BY LUMEX INC, THE HOLDER OF THIS DOCUMENT SHALL KEEP ALL INFORMATION CONTAINED HEREIN CONFIDENTIAL AND SHALL PROTECT SAME IN WHOLE OR IN PART FROM DISCLOSURE AND DISSEMINATION TO ALL THIRD PARTIES.

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.



290 E. HELEN ROAD
PALATINE, IL 60067-6976
PHONE: +1.847.359.2790
US WEB: www.lumex.com
TW WEB: www.lumex.com.tw

DRAWN BY: JC	CHECKED BY:	APPROVED BY:	DATE: 12.01.06
			PAGE: 1 OF 1
			SCALE: N/A