



PART NUMBER		REV.
CCL-CRS10R/Y		H
REV.	E.C.N. NUMBER AND REVISION COMMENTS	DATE
A	REDRAWN.	4.27.93
B	ADDED POLARITY NOTATION.	1.14.94
C	E.C.N. #10390 & #10BRDR & REDRAWN.	10.2.98
D	E.C.N. 104B4. ADDED SOLDER PROFILE	12.11.98
E	E.C.N. #10695. & REDRAWN IN 3D.	1.12.01
F	E.C.N. #10967.	3.14.03
G	E.C.N. #11271.	9.15.05
H	E.C.N. #11148.	01.19.07

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

PARAMETER	MIN	TYP	MAX	UNITS	TEST COND
PEAK WAVELENGTH		635 (RED)		nm	
		585 (YELLOW)		nm	
FORWARD VOLTAGE (R/Y)		2.0/2.1	2.5	V_f	
REVERSE VOLTAGE	4.0			V_r	$I_f=100\mu\text{A}$
AXIAL INTENSITY (R/Y)		12/8		mcd	$I_f=20\text{mA}$
VIEWING ANGLE		180		$2x$ theta	
EMITTED COLOR:	RED/YELLOW				
EPOXY LENS FINISH:	WATER CLEAR				

LIMITS OF SAFE OPERATION AT 25°C

PARAMETER	COLORS	MAX	UNITS
PEAK FORWARD CURRENT*		100	mA
STEADY CURRENT		25	mA
POWER DISSIPATION		65	mW
DERATE FROM 25°C		-0.33	$\text{mW}/^\circ\text{C}$
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.

REV.	PART NUMBER
H	CCL-CRS10R/Y
3.0mm x 2.5mm CERAMIC SURFACE MOUNT LED, RED & YELLOW LEDS, 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:	CHECKED BY:	APPROVED BY:	DATE:
JC			7.21.97
			PAGE: 1 OF 1
			SCALE: N/A