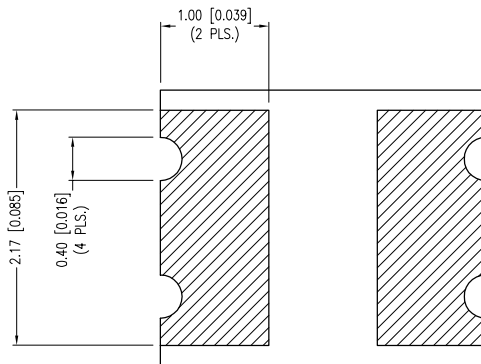
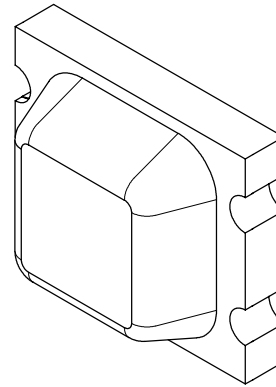
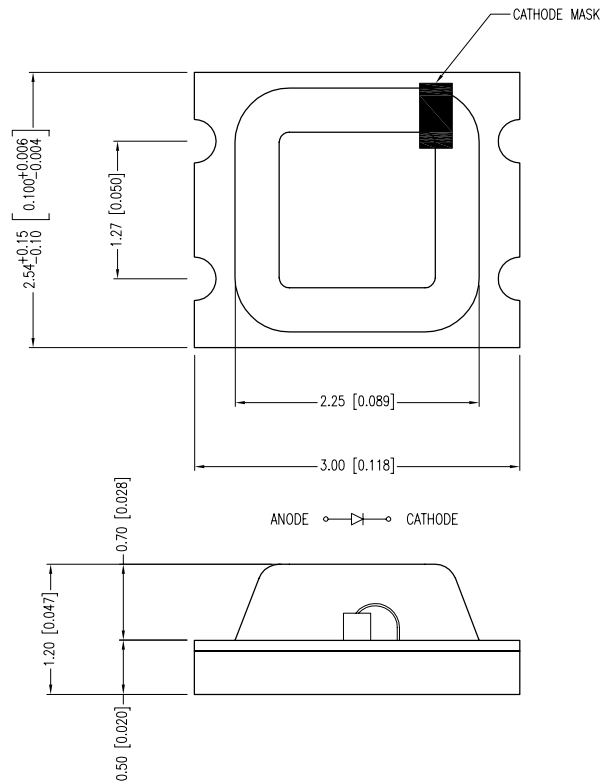
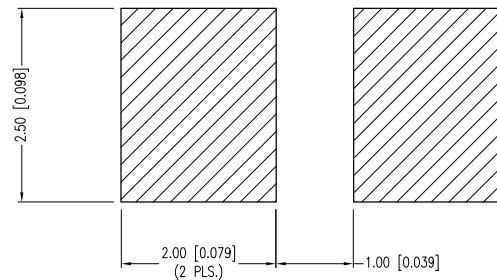


PART NUMBER	CCL-CRS10UPG	REV.	C
DATE	E.C.N. NUMBER AND REVISION COMMENTS		REV.
03.14.03	E.C.N. #10967.		A
12.01.06	E.C.N. #11148.		B
06.17.11	E.C.N. #10BRDR. & REDRAWN/#11730.		C



RECOMMENDED SOLDER PAD LAYOUT



ELECTRO-OPTICAL CHARACTERISTICS TA =25°C		If=20mA			
PARAMETER	MIN	TYP.	MAX	UNITS	TEST COND
PEAK WAVELENGTH		525		nm	
FORWARD VOLTAGE		3.5	4.0	Vf	
REVERSE VOLTAGE	4.0			Vr	Ir=100µA
AXIAL INTENSITY		70		mcd	If=20mA
VIEWING ANGLE		180		2x theta	
EMITTED COLOR:	GREEN				
EPOXY LENS FINISH:	WATER CLEAR				

LIMITS OF SAFE OPERATION AT 25°C

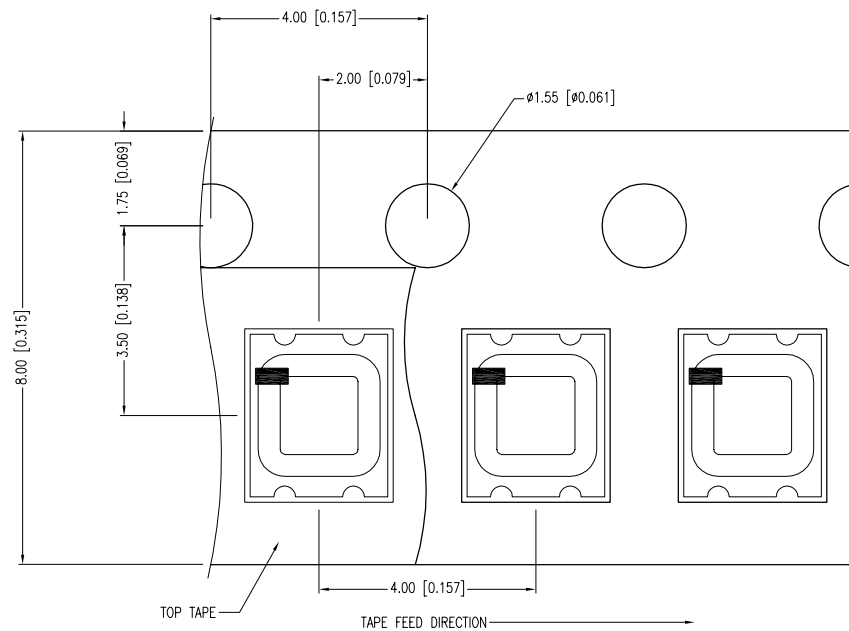
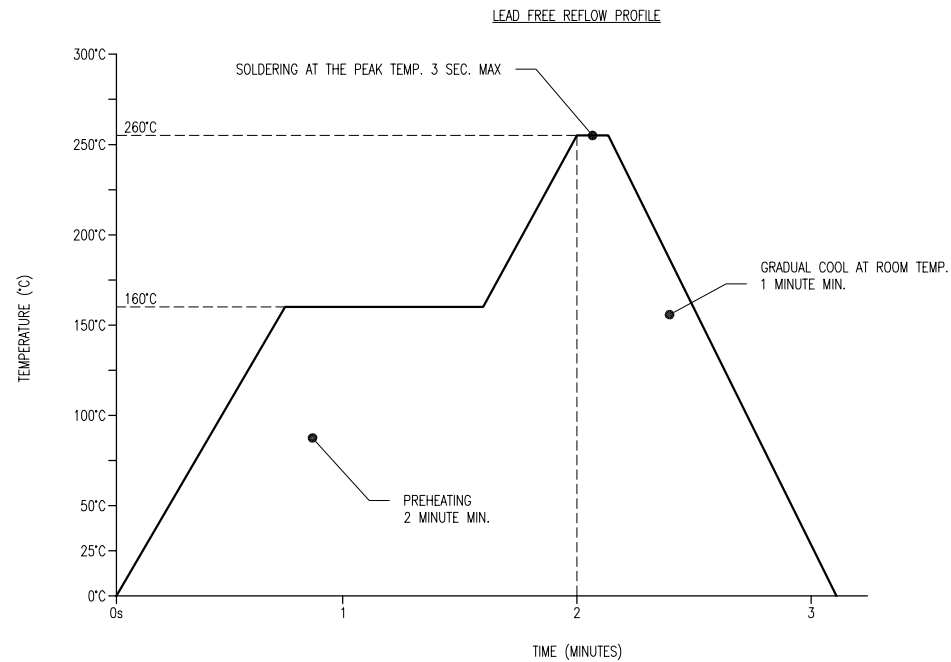
PARAMETER	MAX	UNITS
PEAK FORWARD CURRENT*	100	mA
STEADY CURRENT	25	mA
POWER DISSIPATION	120	mW
DERATE FROM 25°C	-.33	mW/°C
OPERATING TEMP.	-30 TO +75	°C
STORAGE TEMP.	-40 TO +85	°C

* t<10µS

SOLDER HEAT PROOF TEST:	DIPPING FOR 5 SEC. AT 250°C, 2 TIMES.
THERMAL SHOCK TEST:	15 MIN. AT +90°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:	Ta=60°C, Rh=90%, 1,000 HOURS.
IRON SOLDERING:	20W IRON (SHARP TIP), 280-320°C, 5 SEC. MAX.,
SOLDER DIP METHOD:	TEMP. IS 240-260°C AND TIME IS WITHIN 10 SEC.
RE-FLOW SOLDERING:	SEE CHART.

CAUTION: MOISTURE SENSITIVE DEVICE
PER JEDEC LEVEL 2A 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 MAX.= +0.00 -DECIMAL PRECISION



NOTES:

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

*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.= $\begin{matrix} +0.00 \\ -0.00 \end{matrix}$ DECIMAL PRECISION MAX.= $\begin{matrix} +0.00 \\ -0.00 \end{matrix}$ DECIMAL PRECISION

UNCONTROLLED DOCUMENT