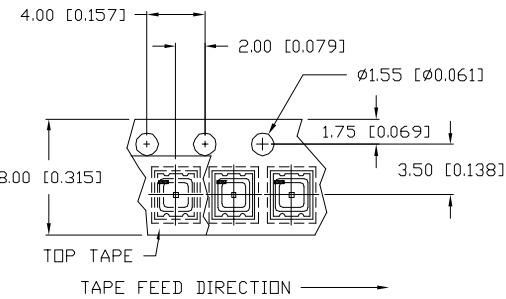
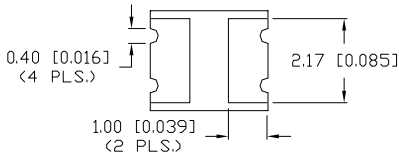
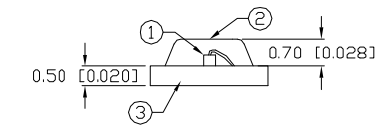
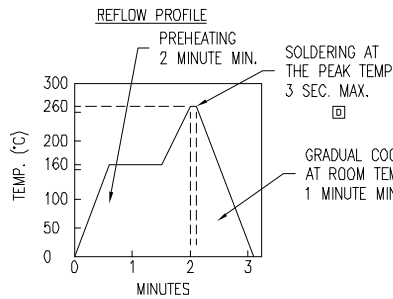
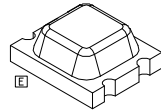
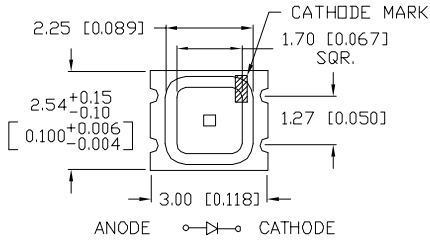
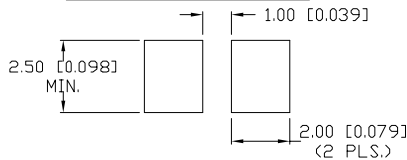


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RECOMMENDED SOLDER PAD LAYOUT



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), XX=±0.5 (±0.020), XXX=±0.25 (±0.010), XXXX=±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

PART NUMBER
CCL-CRS10SR

REV.
F

REV.	E.C.N. NUMBER AND REVISION COMMENTS	DATE
A	REDRAWN.	4.27.00
B	CORRECTED DIMS.	3.20.95
C	E.C.N. #10390 & #10BRDR & REDRAWN.	10.2.98
D	E.C.N. #10484. ADDED SOLDER SPECS.	12.11.98
E	E.C.N. #10695. & REDRAWN IN 3D.	12.28.00
F	E.C.N. #10967.	3.14.03

ELECTRO-OPTICAL CHARACTERISTICS T _A =25°C I _f =20mA		MIN	TYP	MAX	UNITS	TEST COND
PEAK WAVELENGTH			660		nm	
FORWARD VOLTAGE			1.7	2.2	V _f	
REVERSE VOLTAGE	3.0				V _r	I _f =100µA
AXIAL INTENSITY			40		mcd	I _f =20mA
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*	60	mA
STEADY CURRENT	15	mA
POWER DISSIPATION	45	mW
DERATE FROM 25°C	-.33	mW/°C
OPERATING TEMP.	-30 TO +75	°C
STORAGE TEMP.	-40 TO +85	°C

* I_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:	T _a =60°C, Rh=90%, 1,000 HOURS.
IRON SOLDERING:	20W IRON (SHARP TIP), 280-320°C, 5 SEC. MAX.,
SOLDER DIP METHODE:	TEMP. IS 240-260°C AND TIME IS WITHIN 10 SEC.
RE-FLOW SOLDERING:	SEE CHART.

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REV.	PART NUMBER
F	CCL-CRS10SR

3.0mm x 2.5mm CERAMIC SURFACE MOUNT LED,
660nm SUPER RED LED, WATER CLEAR LENS.

CONFIDENTIAL INFORMATION
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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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CT			5.20.97
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