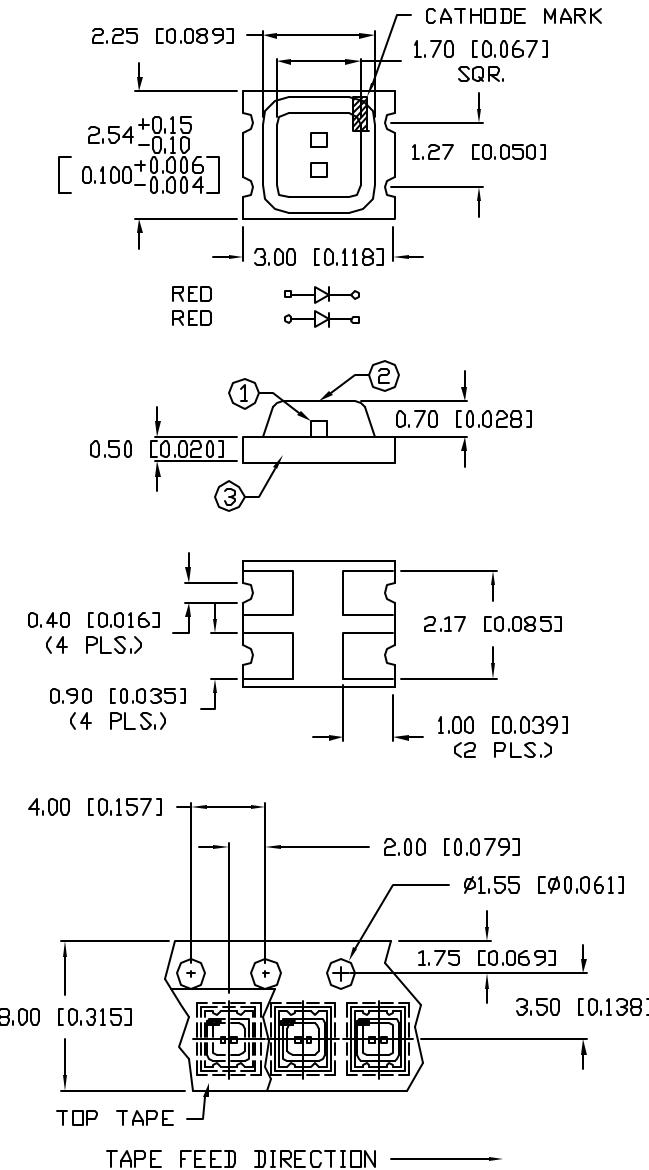
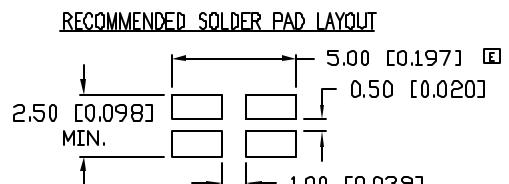
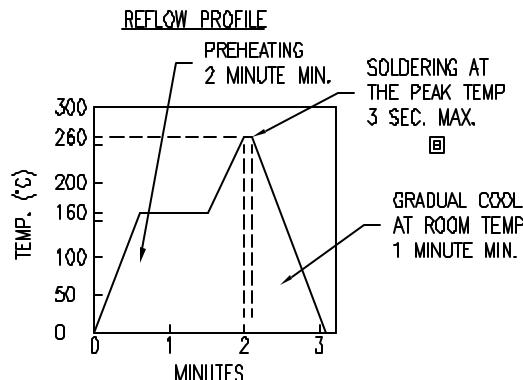
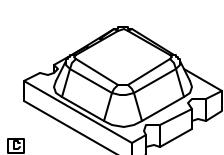


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*UNLESS OTHERWISE SPECIFIED TOLERANCES PER DECIMAL PRECISION ARE: X=±1 (±0.039), XX=±0.5 (±0.020), XXX=±0.25 (±0.010), XXXX=±0.127 (±0.005). LEAD SIZE=±0.05 (±0.002), LEAD LENGTH=±0.75 (±0.30). MIN= ^{+0.00}_{-0.00} DECIMAL PRECISION MAX= ^{+0.00}_{-0.00} DECIMAL PRECISION

REV.	PART NUMBER
F	CCL-CRS10SRSR
3.0mm x 2.5mm CERAMIC SURFACE MOUNT LED, 660nm SUPER RED LED, WATER CLEAR LENS.	



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.

CAUTION: MOISTURE SENSITIVE DEVICE
PER JEDEC LEVEL 4 STANDARDS



PART NUMBER		REV.
CCL-CRS10SRSR		F
REV.	E.C.N. NUMBER AND REVISION COMMENTS	DATE
A	E.C.N. #10390 & #10BRDR & REDRAWN.	10.2.98
B	E.C.N. 104B4. ADDED SOLDER PROFILE	12.11.98
C	E.C.N. #10695. & REDRAWN IN 3D.	1.12.01
D	E.C.N. #10967.	3.14.03
E	E.C.N. #11271.	9.16.05
F	E.C.N. #11148.	12.01.06

ELECTRO-OPTICAL CHARACTERISTICS TA=25°C If=20mA				
PARAMETER	MIN	TYP	MAX	UNITS
PEAK WAVELENGTH		660 (RED)		nm
FORWARD VOLTAGE		1.7	2.3	V _f
REVERSE VOLTAGE	3.0			V _r
AXIAL INTENSITY		8		mcd
VIEWING ANGLE		180		2x theta
EMITTED COLOR:	RED			
EPOXY LENS FINISH:	WATER CLEAR			

LIMITS OF SAFE OPERATION AT 25°C

PARAMETER	COLORS	MAX	UNITS
PEAK FORWARD CURRENT*		60	mA
STEADY CURRENT		15	mA
POWER DISSIPATION		45	mW
DERATE FROM 25°C		-0.13	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.

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JC			PAGE: 1 OF 1 SCALE: N/A

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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.

Mouser Electronics

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