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## DATA SHEET

PART NO. : L-C190JRCT-FSL

REV : A / 0

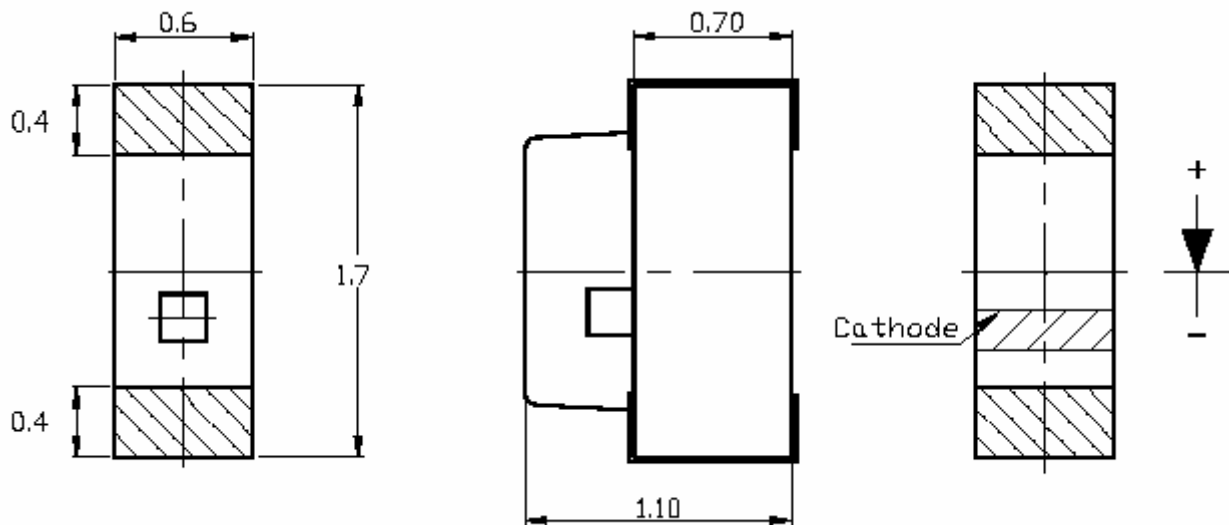
CUSTOMER'S APPROVAL : \_\_\_\_\_ DCC : \_\_\_\_\_

DRAWING NO. : DS-31-12-0079

DATE : 2012-10-23

Page : 1

## PACKAGE DIMENSIONS

**Notes:**

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.2\text{mm}$  (.0079") unless otherwise noted.
3. Specifications are subject to change without notice
4. This drawing is only for reference, not as a basis for the actual structure.



1.7\*0.6\*1.1 mm SMD LED

L-C190JRCT-FSL

REV:A / 0

FEATURES

- \* 1.7\*0.6\*1.1 mm SMD LED
- \* LOW POWER CONSUMPTION
- \* I.C. COMPATIBLE
- \* LONGLIFE SOLID STATE RELIABILITY

CHIP MATERIALS

- \* Dice Material : AllnGaP
- \* Light Color : Red
- \* Lens Color : WATER CLEAR

ABSOLUTE MAXIMUM RATING : ( Ta = 25°C )

SYMBOL	PARAMETER	Rating	UNIT
PD	Power Dissipation	75	mW
If	Forward Current	30	mA
Ifp	Peak Forward Current (1/10 duty cycle 0.1ms)	80	mA
VR	Reverse Voltage	5	V
Topr	Operating Temperature Range	-55 ~ + 85	
Tstg	Storage Temperature Range	-55 ~ + 85	
Tsld	Lead Soldering Temperature	260 For 5 SEC (5mm[0.20" ] from body)	

ELECTRO-OPTICAL CHARACTERISTICS : ( Ta = 25°C )

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	Iv	7.2	18	72	mcd	IF=5mA
Viewing Angle	2θ1/2		130		deg	IF=5mA
Peak Wavelength	λp		632		nm	IF=5mA
Dominant Wavelength	λD	617.5	631	633.5	nm	IF=5mA
Spectral Line Half-Width	Δλ		20		nm	IF=5mA
Forward Voltage	VF	1.7	2.0	2.3	V	IF=5mA
Reverse Current	IR			10	μA	VR=5V

● Typical Electro-Optical Characteristics Curves

(25 Ambient Temperature Unless Otherwise Noted)

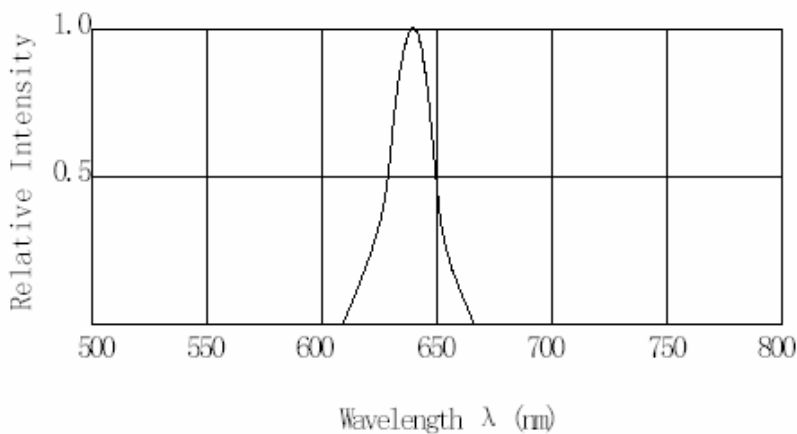


Fig.1 Relative Intensity vs. Wavelength

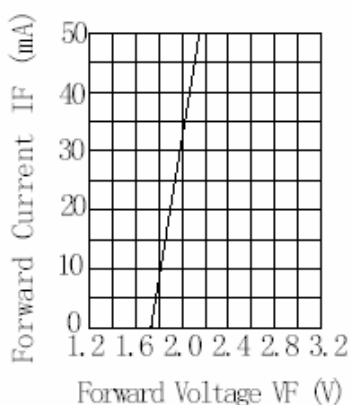


Fig.2 Forward Current VS. Forward Voltage

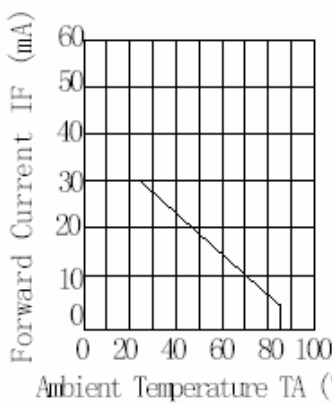


Fig.3 Forward Current Derating Curve

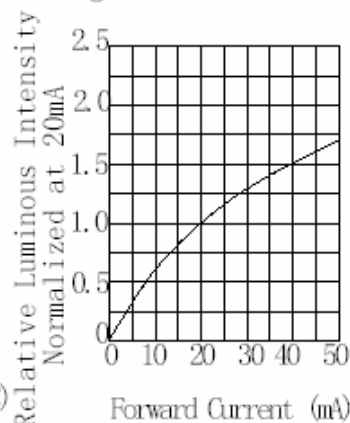


Fig.4 Relative Luminous Intensity VS. Forward Current

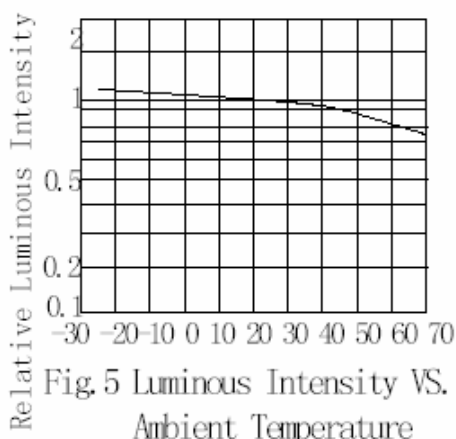


Fig.5 Luminous Intensity VS. Ambient Temperature

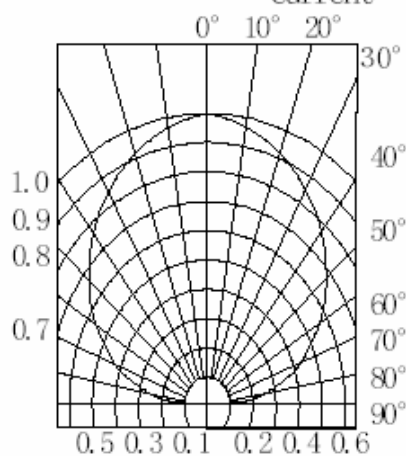
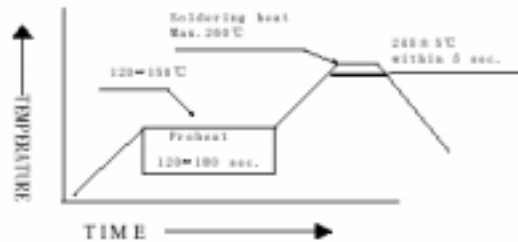


Fig.6 Spatial Distribution

### SMT Reflow Soldering Instructions



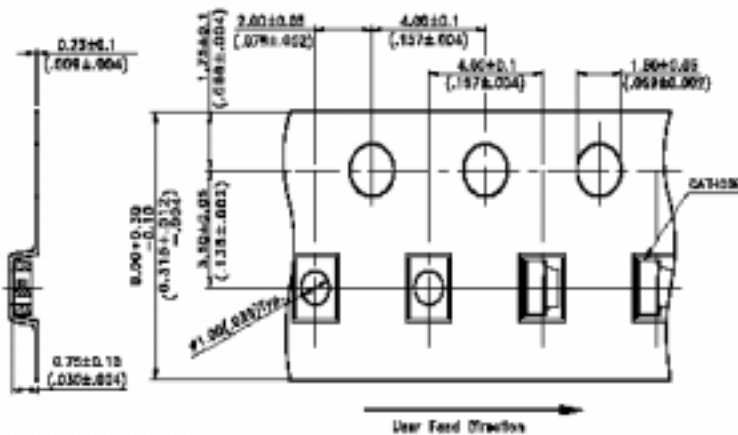
#### Notes:

1. Selles gives no other assurances regarding the ability of to withstand ESD. It is recommended to use a wrist band or anti-electrostatic glove when handling the LED. All devices, equipment and machinery must be properly grounded.
2. Reflow soldering should not be done more than two times.
3. Do not stress LED when soldering, and do not warp the circuit board after soldering
4. While using Iron, Power dissipation of Iron should be smaller than 25W, and temperature should be controllable. The work should be finished within 2 sec under 320°C for once only.

### Recommended Soldering Pad Dimensions



### Package Specifications (Units: mm(inches))



#### Notes:

1. The LEDs should be used within a year.
2. The LEDs should be kept in 5~30°C and 60% RH for less.
3. The LEDs should be used within 24 hours, or else should be kept a 5~30°C and 30% RH or less. And LEDs should be used within 7 days after opening the package.

**Bin Range Of Luminous Intensity**

Symbol	Bin Code	Min.	Max.	Unit	Condition
Iv	K	7.2	11.2	mcd	IF=5mA
	L	11.2	18.0		
	M	18.0	45.0		
	N	45.0	72.0		

**Bin Range Of Forward Voltage**

Symbol	Bin Code	Min.	Max.	Unit	Condition
VF	V2	1.7	1.9	V	IF=5mA
	V3	1.9	2.1		
	V4	2.1	2.3		

**Bin Range Of Dominate Wavelength**

Symbol	Bin Code	Min.	Max.	Unit	Condition
$\lambda d$	DR	617.5	633.5	nm	IF=5mA

## Notes:

1. Tolerance of Luminous Intensity +/-20%
2. Tolerance of Forward Voltage +/-0.2V
3. Tolerance of the Dominate Wavelength +/- 2nm

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