

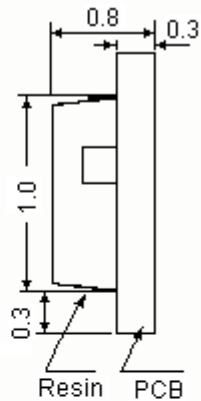
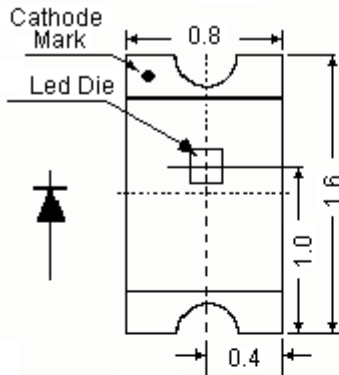


PART NO.

MCL-S291SBLC

REVISIONS

ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
-	A	RELEASED	Ramya	14/10/09	Sridhar	14/10/09	Farnell	28/10/09



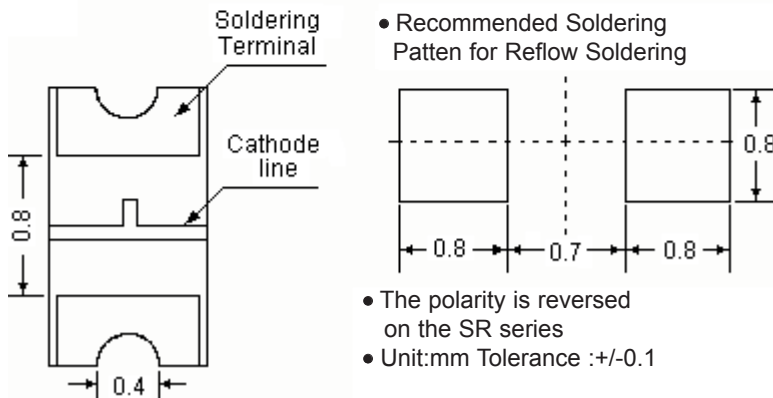
Specifications:

Dice material : InGaN.  
 Emitted colour : Super blue.  
 Epoxy colour : Water clear.  
 Peak wavelength : 470nm.  
 Viewing angle : 140 degrees.  
 Luminous intensity (IV) : 50mcd.



Electrical/Optical Characteristics at T<sub>a</sub> = 25°C

Parameter	Symbol	Minimum	Typical	Maximum	Unit	Test
Luminous Intensity	IV	25	50	75	mcd	IF = 20mA
Viewing Angle	2θ 1/2	-	140	-	degrees	
Peak Emission Wavelength	• p	-	470	-	nm	-
Dominant Wavelength	• D	-	472	-		-
Spectral Line Half-Width	Δλ	-	45	-		-
Forward Voltage	VF	2.7	3.4	4.0	V	IF = 20mA
Power Dissipation	Pd	-	-	85	-	-
Peak Forward Current (Duty 1/10 at 1KHz)	IF (Peak)	-	-	100	-	-
Recommended Operating Current	IF (Rec)	-	20	-	mA	-



• Recommended Soldering Patten for Reflow Soldering

- The polarity is reversed on the SR series
- Unit:mm Tolerance : +/-0.1

Dimensions : Millimetres

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Ramya	14/10/09
CHECKED BY:	DATE:
Sridhar	14/10/09
APPROVED BY:	DATE:
Farnell	28/10/09

DRAWING TITLE:

0603 SMD LED - Super Blue

SIZE	DWG NO.	ELECTRONIC FILE	REV
A	M10002401	53040_1581248_DWG	A
SCALE: NTS	U.O.M.: mm	SHEET: 1 OF 4	



PART NO.

MCL-S291SBLC

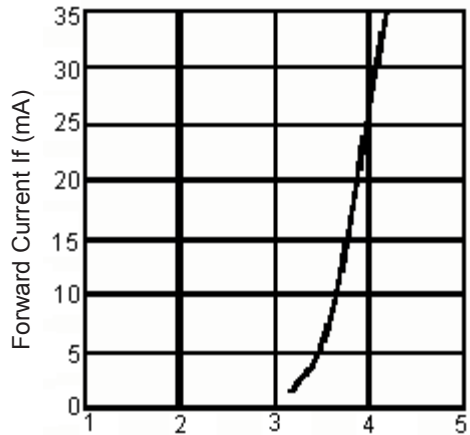
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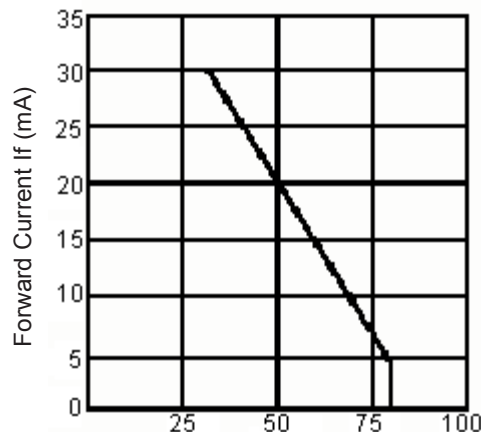
**Absolute Maximum Ratings (T<sub>a</sub> = 25°C)**

Reverse Voltage	5 Volt
Reverse Current	10µA (V <sub>R</sub> = 5V)
Electrostatic Discharge (ESD)	200V
Operating Temperature Range	-40°C to 85°C
Storage Temperature Range	-40°C to 100°C
Lead Soldering Temperature Range 1.6mm (1/16 inch) from body	260°C for 5 Seconds

**Super Blue (InGaN) λP = 470nm**



Forward Current vs. Forward Voltage



Forward Current Derating Curve

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Sridhar	14/10/09
<b>APPROVED BY:</b>	<b>DATE:</b>
Farnell	28/10/09

**DRAWING TITLE:**

**0603 SMD LED - Super Blue**

<b>SIZE</b> A	<b>DWG NO.</b> M10002401	<b>ELECTRONIC FILE</b> 53040_1581248_DWG	<b>REV</b> A
<b>SCALE: NTS</b>		<b>U.O.M.: mm</b>	<b>SHEET: 2 OF 4</b>



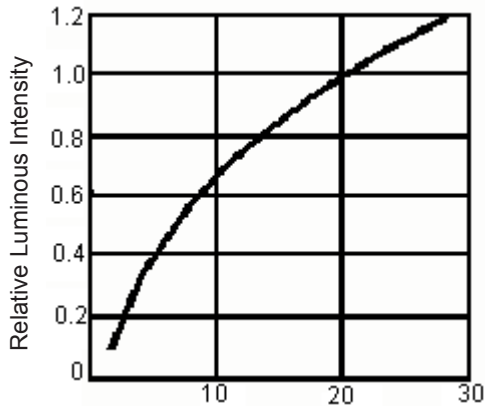
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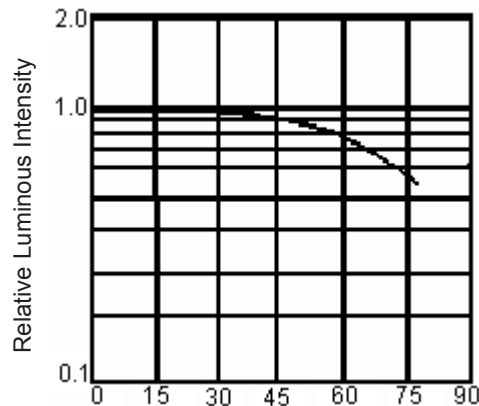
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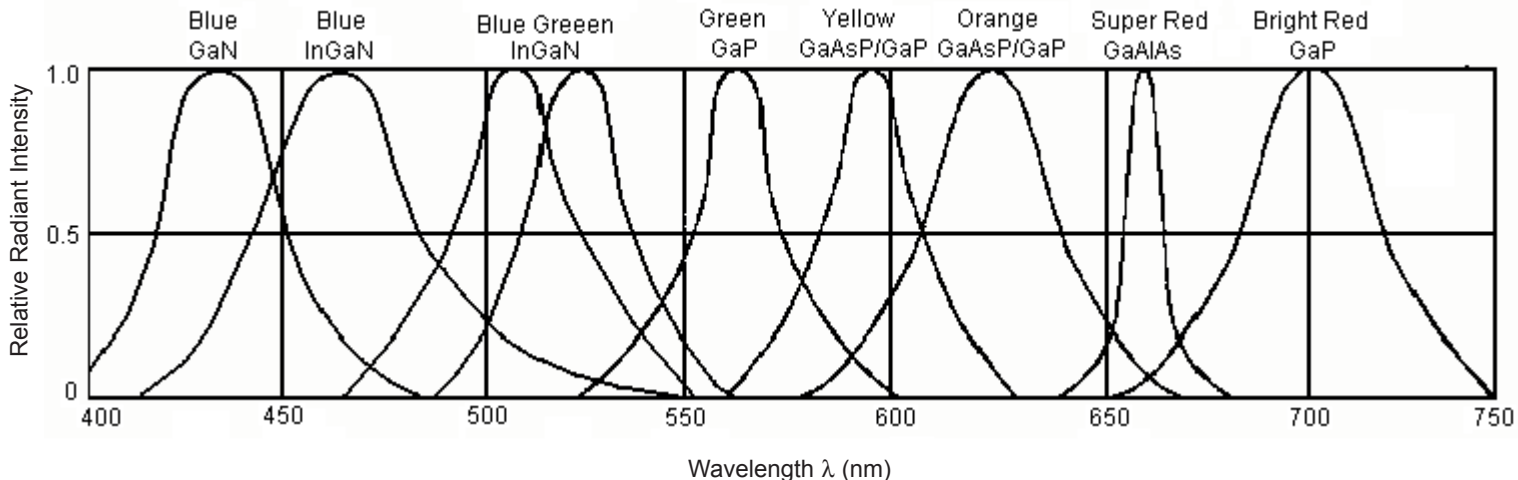
Super Blue (InGaN)  $\lambda_P = 470\text{nm}$



Forward Current (mA)  $T_a = 25^\circ\text{C}$   
Luminous Intensity vs. Forward Current



Ambient Temperature  $T_a = ^\circ\text{C}$   
Luminous Intensity vs. Ambient Temperature



Wavelength  $\lambda$  (nm)  
Relative Intensity vs. Wavelength

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Ramya

CHECKED BY:

Sridhar

APPROVED BY:

Farnell

DATE:

14/10/09

DATE:

14/10/09

DATE:

28/10/09

DRAWING TITLE:

0603 SMD LED - Super Blue

SIZE  
A

DWG NO.

M10002401

SCALE: NTS

U.O.M.: mm

ELECTRONIC FILE  
53040\_1581248\_DWG

REV  
A

SHEET: 3 OF 4



PART NO.

MCL-S291SBLC

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-	A	RELEASED	Ramya	14/10/09	Sridhar	14/10/09	Farnell	28/10/09

Part Number Table

Description	Part Number
LED, SMD, 0603, Super-Blue	MCL-S291SBLC

<http://www.farnell.com>

<http://www.newark.com>

<http://www.cpc.co.uk>

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<b>APPROVED BY:</b>	<b>DATE:</b>
Farnell	28/10/09

<b>DRAWING TITLE:</b>			
<b>0603 SMD LED - Super Blue</b>			
<b>SIZE</b>	<b>DWG NO.</b>	<b>ELECTRONIC FILE</b>	<b>REV</b>
<b>A</b>	<b>M10002401</b>	53040_1581248_DWG	<b>A</b>
<b>SCALE: NTS</b>		<b>U.O.M.: mm</b>	<b>SHEET: 4 OF 4</b>