



中山市晶博光电科技有限公司

ZHONGSHAN LUCKY OPTOELECTRONICS CO.,LTD.

DATA SHEET

PART NO. : 3R3C93RGCA

DATE : 2009-3-10

DEPARTMENT : R&D

REVISION : 1.0

RECEIVED			
<input type="checkbox"/> MASS PRODUCTION			
<input checked="" type="checkbox"/> PRELIMINARY			
<input type="checkbox"/> CUSTOMER DESIGN			
DEVICE NUMBER :		JBDL-3R3-015	
PAGE :		5	
CUSTOMER	DESIGNER	CHECKER	APPROVER

REV.	DESCRIPTION	RELEASE DATE

Address : Bld.8,Fuwan Industrial Zone,Eastern,Zhongshan,Guangdong,China

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ZHONGSHAN LUCKY OPTOELECTRONICS CO.,LTD.

Device Number: JBDL-3R3-015

REV: 1.0

3.0mm Multi-Color Round Type LED Lamps

Model No.: **3R3C93RGCA**

ECN: _____ Page: 2/5

Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Rating	Unit
Forward Current	IF	G15	30
		R92	30
Power Dissipation	Pd	G15	120
		R92	100
Peak Forward Current	IF(Peak)	G15	100
		R92	160
Operating Temperature	Topr	-40 to +85	°C
Storage Temperature	Tstg	-40 to +100	°C
Soldering Temperature	Tsol	260 ± 5	°C
Reverse Voltage	VR	7	V

Note: *1:IFP Conditions --Pulse Width ≤ 1msec and Duty ≤ 1/10.

*2:Soldering time ≤ 5 seconds.

Electro-Optical Characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	Iv	G15	600	1650	/	mcd IF= 20 mA
		R92	160	170	/	
Peak Wavelength	λ p	G15	/	533	/	nm IF= 20 mA
		R92	/	630	/	
Dominant Wavelength	λ d	G15	/	517	/	nm IF= 20 mA
		R92	/	618	/	
Spectrum Radiation Bandwidth	Δ λ	G15	/	35	/	nm IF= 20 mA
		R92	/	45	/	
Forward Voltage	VF	G15	/	3.1	3.4	V IF= 20 mA
		R92	/	1.9	2.2	
Viewing Angle	2 θ 1/2	/	45	/	deg	IF= 20 mA
Reverse Current	IR	/	/	2	μ A	VR= 7 V

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Prepared by : George

Prepared date : 09-3-10

903001



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Device Number: JBDL-3R3-015

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3.0mm Multi-Color Round Type LED Lamps

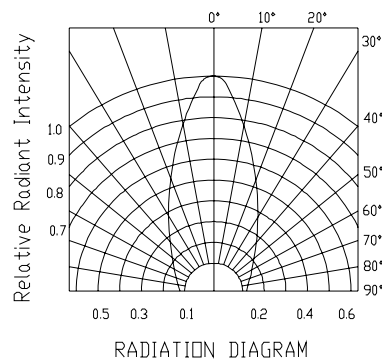
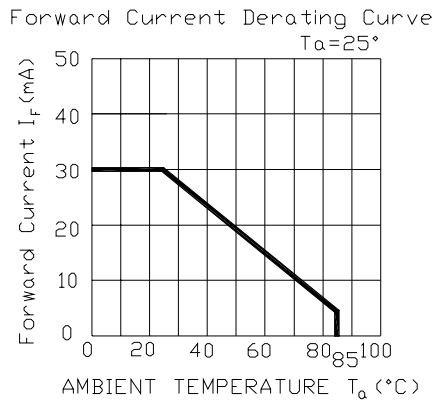
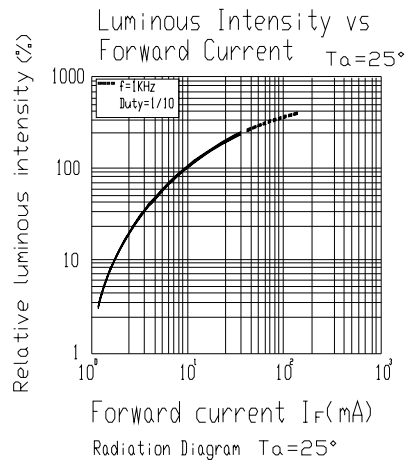
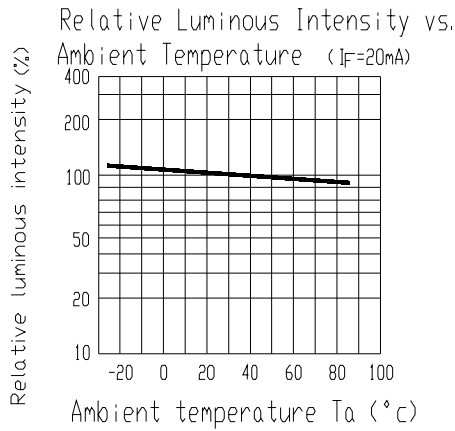
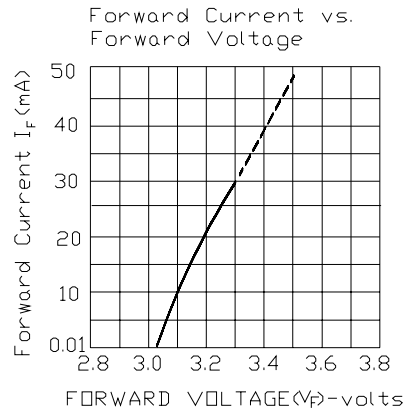
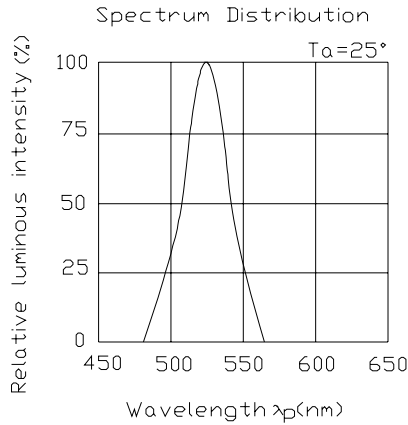
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■ Typical Electro-Optical Characteristic Curves:

G



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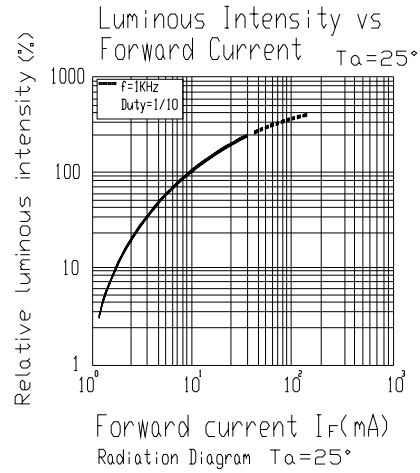
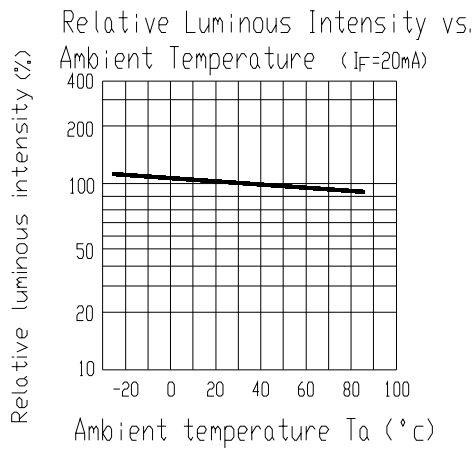
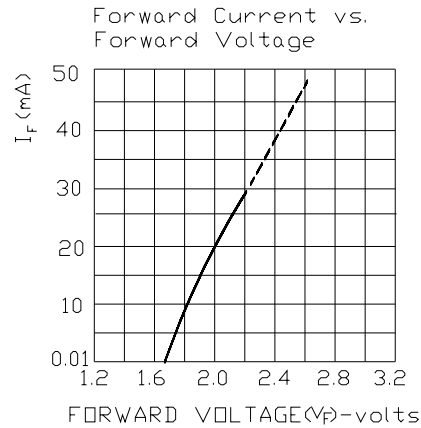
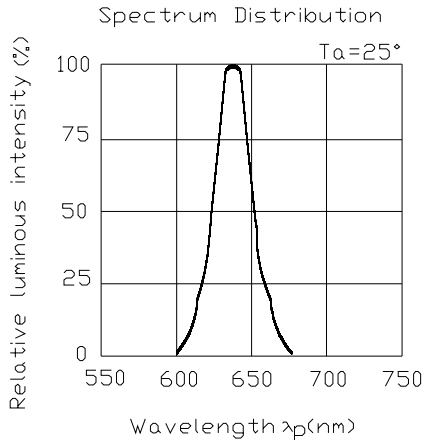
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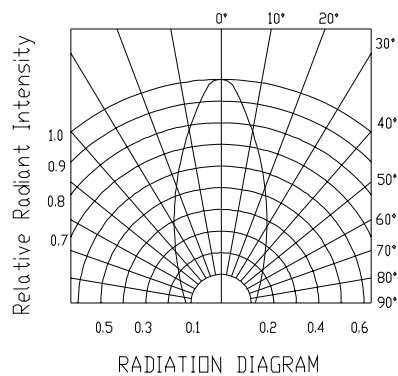
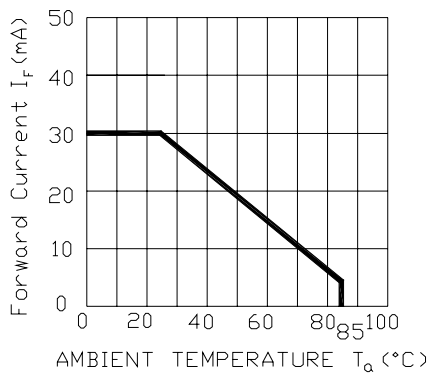
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■ Typical Electro-Optical Characteristic Curves:

R



Forward Current Derating Curve



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■ Reliability test items and conditions:

NO	Item	Test Conditions	Test Hours/Cycle	Sample size	Ac/Re
1	Solder Heat	TEMP : 260°C ± 5 °C	10 SEC	76 PCS	0/1
2	Temperature Cycle	H : +100°C 15min ∫ 5 min L : -40°C 15min	300 CYCLES	76 PCS	0/1
3	Thermal Shock	H : +100°C 5min ∫ 10 sec L : -10°C 5min	300 CYCLES	76 PCS	0/1
4	High Temperature Storage	TEMP : 100°C	1000 HRS	76 PCS	0/1
5	Low Temperature Storage	TEMP : -40°C	1000 HRS	76 PCS	0/1
6	DC Operating Life	TEMP : 25°C IF = 20mA	1000 HRS	76 PCS	0/1
7	High Temperature/ High Humidity	85°C / 85% RH	1000 HRS	76 PCS	0/1

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