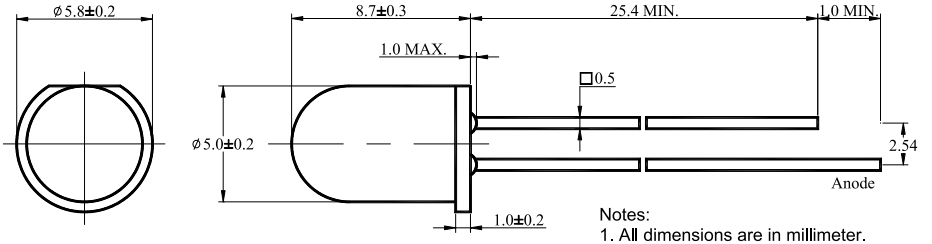
jaycar

ZD0196

5mm Round LED Lamp

PACKAGE DIMENSIONS:



Notes:
1. All dimensions are in millimeter.
2.An epoxy meniscus may extend about.
1. 5mm(0.059") down to the lead
3.Tolerances unless Dimension ±0.25mm

FEATURES

- Choice of various viewing angles.
- Available on Tape and Reel.
- Reliable and robust.

DESCRIPTION

The series is specially designed for application requiring higher brightness. The LED lamps are available with different color, intensities, epoxy colors etc.

SPECIFICATIONS

Chip Material	InGaN
Emitted Colour	White
Lens Colour	Clear

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ABSOLUTE MAXIMUM RATINGS AT TA=25°C

Parameter	Symbol	Rating
Forward Current	I_F	30mA
Operating Temperature	Topr	-40 to +85°C
Storage Temperature	Tstg	-40 to +100°C
Soldering Temperature	Tsol	260 ± 5°C
Electrostatic Discharge	ESD	1000V
Power Dissipation	P_D	120mW
Peak Forward Current (Duty 1/10@1KHz)	I_F (Peak)	100mA
Reverse Voltage	V_R	5V

ELECTRONIC OPTICAL CHARACTERISTICS

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	I_V	22000	33000	-	mcd	IF=20mA
Viewing Angle	2θ1/2	-	15	-	deg	IF=20mA
Chromatically Coordinates	X	-	0.31	-	-	IF=20mA
	Y	-	0.32	-	-	
Forward Voltage	V_F	-	3.2	3.8	V	IF=20mA
Reverse Current	I_R	-	-	10	μA	VR=5V

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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 ± 5°C	5 SEC	76 PCS	0/1
2	Temperature Cycle	H: +85°C 30min ∫ 5min L: -55°C 30min	50 CYCLES	76 PCS	0/1
3	Thermal Shock	H: +100°C 5min ∫ 10set L: -10°C 5min	50 CYCLES	76 PCS	0/1
4	High Temp. Storage	TEMP: 100°C	1000 HRS	76 PCS	0/1
5	Low Temp. Storage	TEMP: -55°C	1000 HRS	76 PCS	0/1
6	DC Operating Life	TEMP: 25°C IF=20mA	1000 HRS	76 PCS	0/1
7	High Temp. / High Humidity	85°C / 85%RH	1000 HRS	76 PCS	0/1

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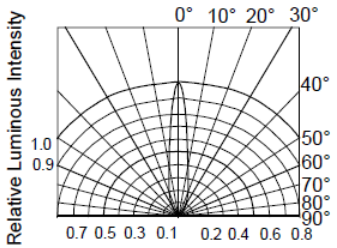
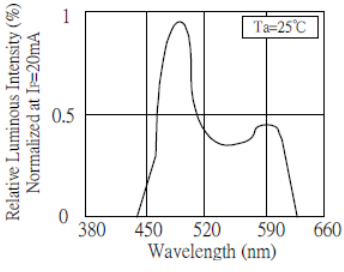
TYPICAL CHARACTERISTICS

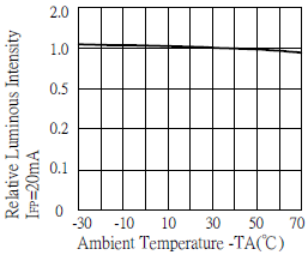
The data typical, and the value is not guaranteed.



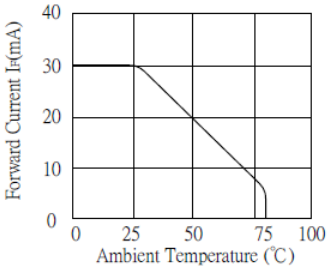
RADIATION DIAGRAM



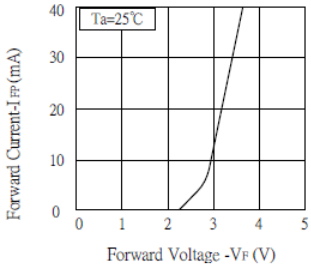
RELATIVE LUMINOUS INTENSITY
Vs. WAVELENGTH



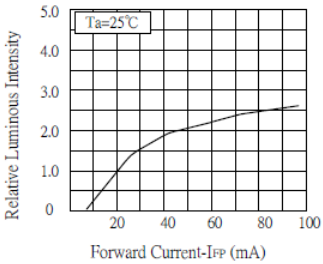
LUMINOUS INTENSITY
Vs. AMBIENT TEMPERATURE



MAX FORWARD CURRENT
Vs. AMBIENT TEMPERATURE



FORWARD CURRENT
Vs. FORWARD VOLTAGE



LUMINOUS INTENSITY
Vs. FORWARD CURRENT

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