



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

arlight

ARL-5730D21W-S 0.5W White



Features

- PLCC-2 package
- Extremely wide viewing angle
- Suitable for all SMT assembly and solder process
- Available on tape and reel
- Moisture sensitivity level: Level 4
- RoHS compliant

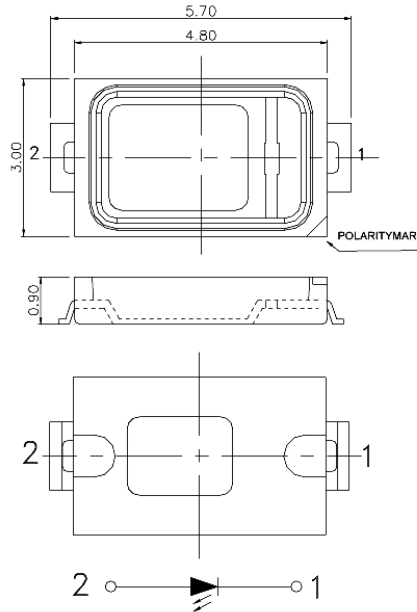
Description

- The White LED which was fabricated using a blue chip and the phosphor

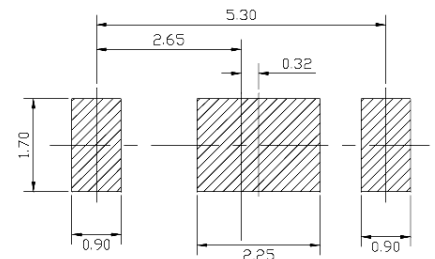
Application

- Lighting
- Backlight for TV

Package Dimensions



Recommended Soldering Pattern



1. All dimension units are millimeters.
2. All dimension tolerance is $\pm 0.15\text{mm}$ unless otherwise noted.

Part No.	Dice	Lens Type	Luminous intensity (mcd) @ 150mA		Luminous flux (lm) @ 150mA		Viewing Angle
			Min.	Max.	Min	Typ	
ARL-5730D21W-S 0.5W White	WHITE (InGaN)	Yellow Diffused	10 000	11 500	Min	Typ	2 θ 1/2
					30	35	120°

Notes

1. θ 1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.
2. The above luminous intensity measurement allowance tolerance $\pm 10\%$.

Electrical / Optical Characteristics at Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Units	Test Conditions
Forward Voltage	V_F	3.0	--	4.0	V	IF=150mA
Reverse Current	I_R	--	--	10	μA	VR = 5V
Color Coordinates	X	--	0.32	--	--	IF=150mA
	Y	--	0.33	--	--	IF=150mA
Color Temperature	Tc	--	6000	--	K	IF=150mA
Color Rendering Index	CRI	65	--	--	Ra	IF=150mA

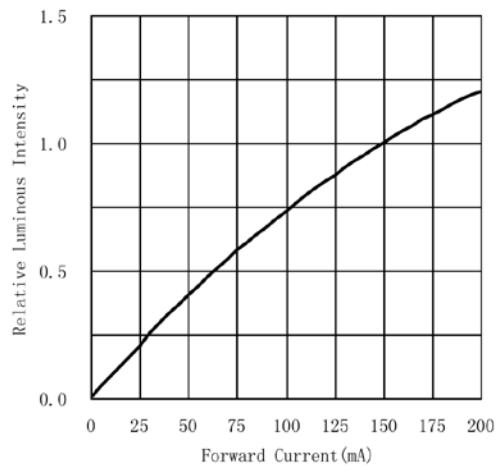
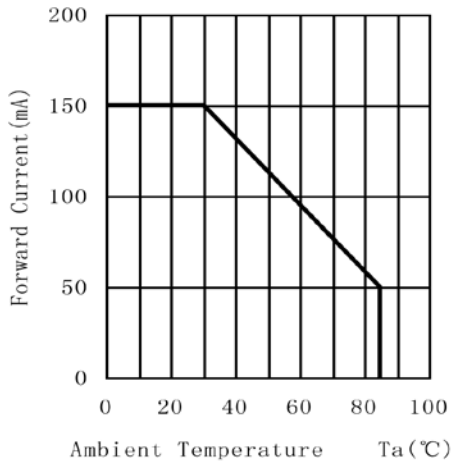
Absolute Maximum Rating at Ta=25°C

Parameter	Symbol	Rating	Units
Power Dissipation	Pd	500	mW
DC Forward Current	IF	150	mA
Peak Forward Current [1]	IFP	200	mA
Reverse Voltage	VR	5	V
Electrostatic Discharge (HBM)	ESD	1000	V
Operating Temperature	Topr	-40 ~ +85	°C
Storage Temperature	Tstg	-40 ~ +100	°C

Note:

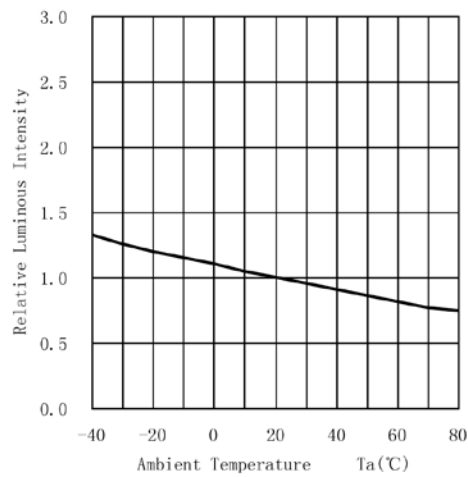
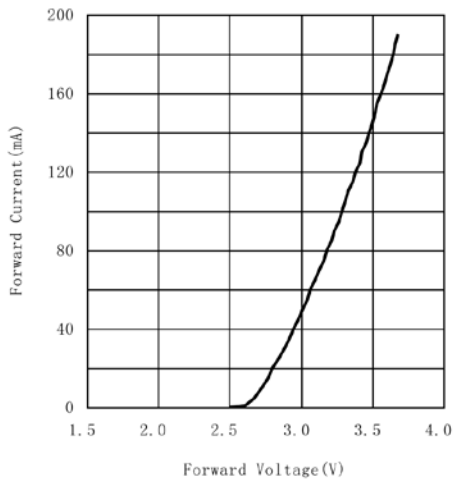
1. 1/10 Duty Cycle, 0.1ms Pulse Width.

Typical optical characteristics curves



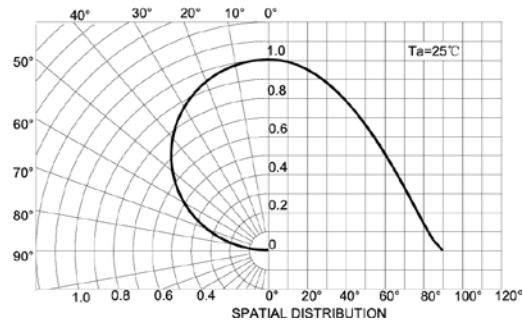
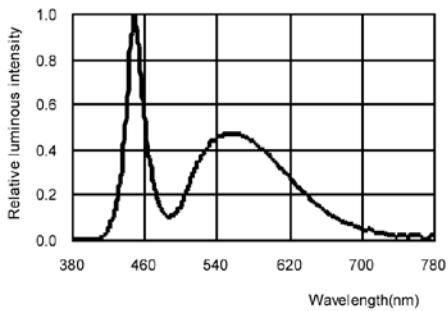
Forward Voltage VS. Forward Current

Ambient Temperature VS. Relative Intensity



Relative spectral emission

Diagram characteristics of radiation



CIE Chromaticity Diagram

