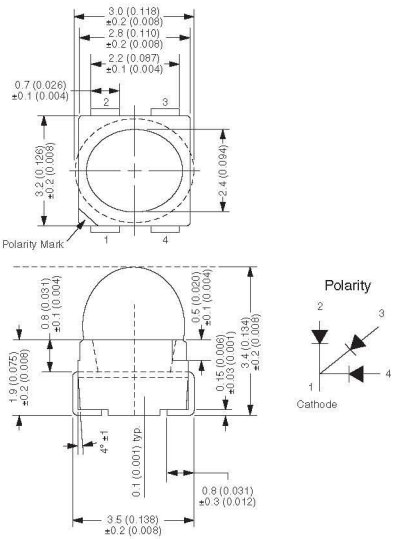
SURFACE MOUNT LED LAMP

ADVANCED DOME PLCC-4

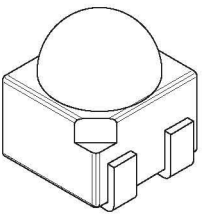
FOL675CIW_7923D White

PACKAGE DIMENSIONS



NOTES:

1. All Dimensions are in millimeters (inches).
2. Tolerance is ±0.1 unless other specified.



APPLICATIONS

- Status indication for consumer electronics and office equipment
- Information display lighting
- Flash or auxiliary lighting

DESCRIPTION

This ultra bright surface mount LED is designed with a dome lens for concentrated light output. It is compatible with both IR reflow and TTW (Through-the-Wave) soldering.

FEATURES

- Small package dimensions of 3.2(L) x 3.0(W) x 3.4(H) mm
- InGaN technology
- Moderate viewing angle of 75°
- Available in 0.315" (8mm) width tape on 7" (178mm) diameter reel; units per reel TBD

ABSOLUTE MAXIMUM RATINGS (T_A =25°C Unless otherwise specified)

Parameter	Symbol	FOL675CIW_7923D	Units
Continuous Forward Current*	I_F	30	mA
Peak Forward Current* (f = 100 KHz, Duty Factor = 1/10)	I_{FM}	100	mA
Reverse Voltage	V_R	5	V
Power Dissipation*	P_D	120	mW
Junction Temperature	T_J	110	°C
Operating Temperature	T_{OPR}	-40 to +85	°C
Storage Temperature	T_{STG}	-40 to +100	°C
Lead Soldering Time	T_{SOL}	260 for 5 sec	°C

*Per die

ELECTRICAL / OPTICAL CHARACTERISTICS (T_A =25°C)

Part Number	Symbol	FOL675CIW_7923D	Condition
Luminous Intensity (mcd)			
Minimum	I_V	1800	I_F = 50mA
Typical		2700	
Forward Voltage (V)			
Typical	V_F	3.3	I_F = 50mA
Maximum		3.9	
Chromatic Coordinate	λ_D	See page 3	I_F = 50mA
Viewing Angle (°)	$2\Theta^1/_2$	75	I_F = 50mA

Luminous Intensity Tolerance = ±10%
Foward Voltage Tolerance = ±0.1V

Color Ranks

(I_F = 20mA, Ta = 25°C)

	Bin a0			
x	0.280	0.264	0.283	0.296
y	0.248	0.267	0.305	0.276

	Bin b5			
x	0.296	0.311	0.307	0.287
y	0.276	0.294	0.315	0.295

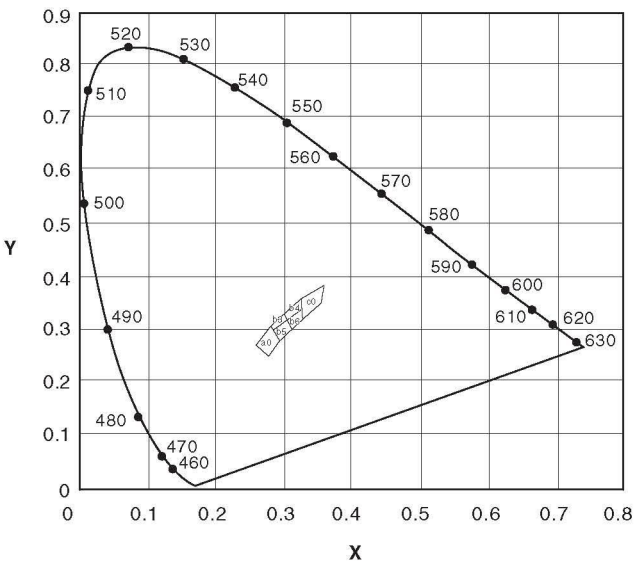
	Bin b3			
x	0.307	0.287	0.304	0.283
y	0.315	0.295	0.330	0.305

	Bin b6			
x	0.311	0.307	0.330	0.330
y	0.294	0.315	0.318	0.339

	Bin b4			
x	0.307	0.330	0.330	0.304
y	0.315	0.339	0.360	0.330

	Bin c0			
x	0.330	0.330	0.361	0.356
y	0.318	0.360	0.385	0.351

Chromaticity Diagram



TYPICAL PERFORMANCE CURVES

Fig. 1 Forward Voltage*

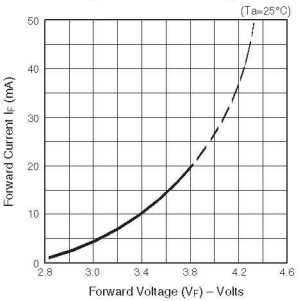


Fig. 2 Luminous Intensity vs. Forward Current*

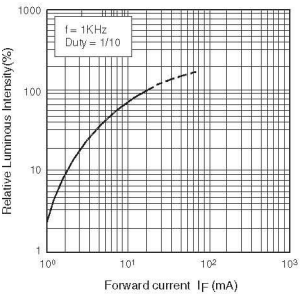


Fig. 3 Forward Current Derating Curve*

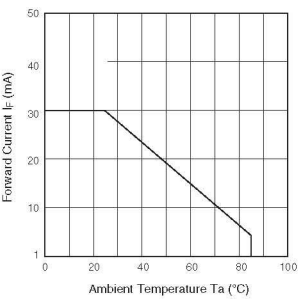


Fig. 4 Spectrum Distribution

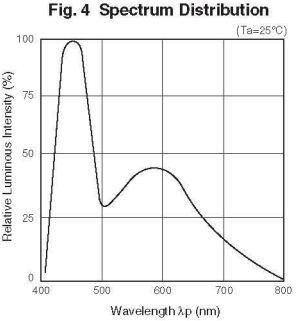


Fig. 5 Radiation Diagram

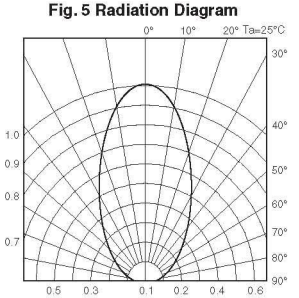
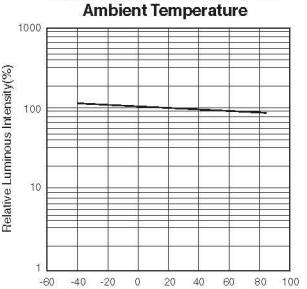
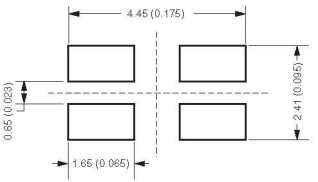


Fig. 6 Luminous Intensity vs. Ambient Temperature

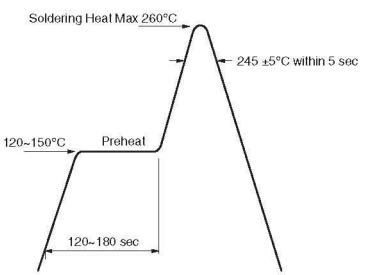


RECOMMENDED PRINTED CIRCUIT BOARD PATTERN

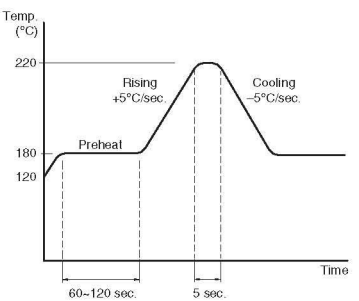


RECOMMENDED IR REFLOW SOLDERING PROFILE

Soldering Heat



Reflow Solder Test



TAPE AND REEL DIMENSIONS

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