



FOL675CIW_7941D White SURFACE MOUNT LED LAMP DOME PLCC-4

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

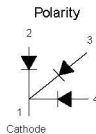
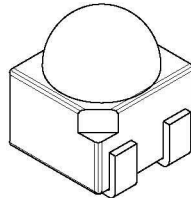
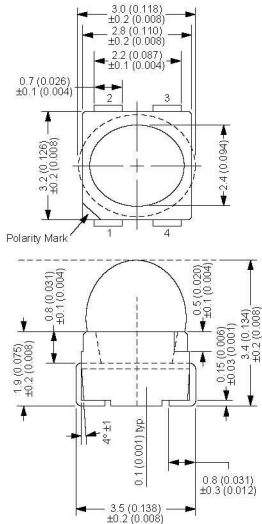
Description

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.

Applications

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

Package Dimensions



NOTES:

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

ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$ Unless otherwise specified)			
Parameter	Symbol	FOL675CIW_7941D	Units
Continuous Forward Current*	I_F	30	mA
Peak Forward Current* ($f = 100\text{ KHz}$, 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	$^\circ\text{C}$
Operating Temperature	T_{OPR}	-40 to +85	$^\circ\text{C}$
Storage Temperature	T_{STG}	-40 to +100	$^\circ\text{C}$
Lead Soldering Time	T_{SOL}	260 for 5 sec	$^\circ\text{C}$

*Per die

ELECTRICAL / OPTICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$)			
Parameter	Symbol	FOL675CIW_7941D	Condition
Luminous Intensity (mcd)			
Minimum	I_V	1500	$I_F = 60\text{mA}^{(2)}$
Forward Voltage (V)			
Typical	V_F	3.3	$I_F = 20\text{mA}$
Maximum		3.9	
Chromatic Coordinate	λ_D	See page 3	$I_F = 20\text{mA}$
Viewing Angle ($^\circ$)	$2\theta^{1/2}$	75	$I_F = 60\text{mA}^{(2)}$

Luminous Intensity Tolerance = $\pm 10\%$

Forward Voltage Tolerance = $\pm 0.1\text{V}$

¹For each die.

²Equivalent to 20mA per die.

Color Ranks ($I_F = 20\text{mA}$, $T_a = 25^\circ\text{C}$)

	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

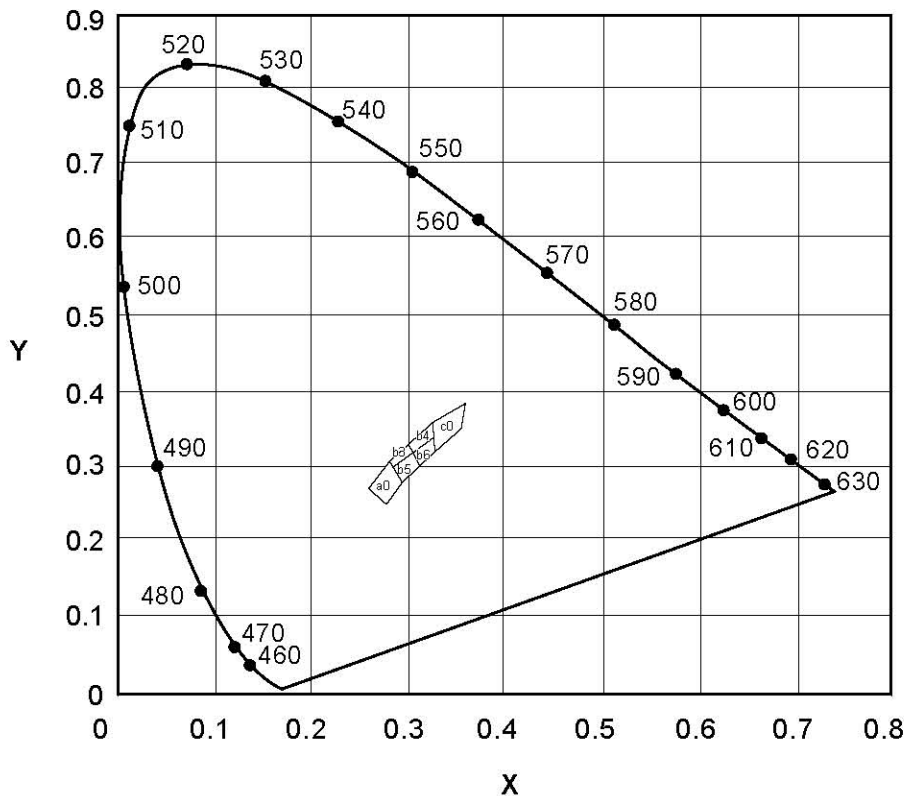
	Bin b3			
x	0.307	0.287	0.304	0.283
y	0.315	0.295	0.330	0.305

	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*

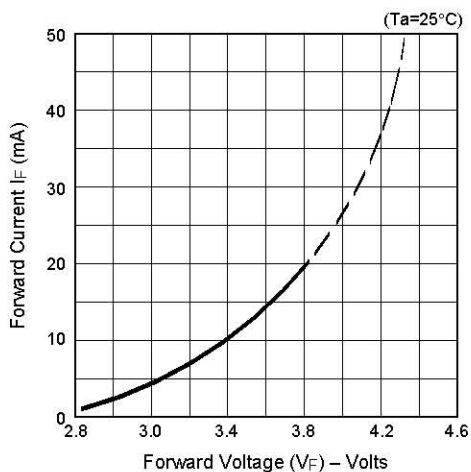


Fig. 2 Luminous Intensity vs. Forward Current*

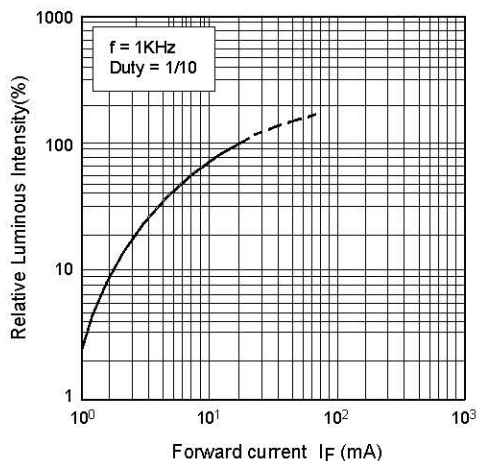


Fig. 3 Forward Current Derating Curve*

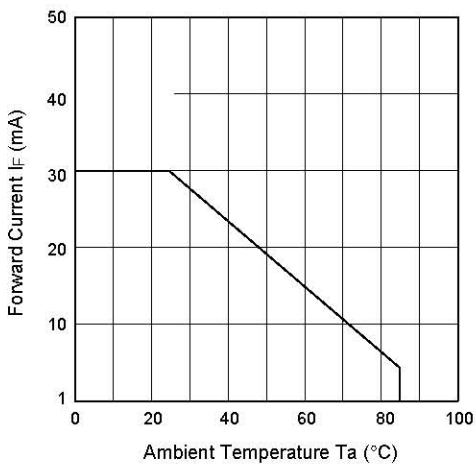


Fig. 4 Spectrum Distribution

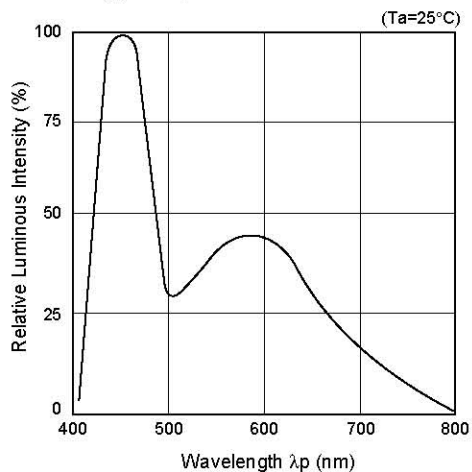


Fig. 5 Radiation Diagram

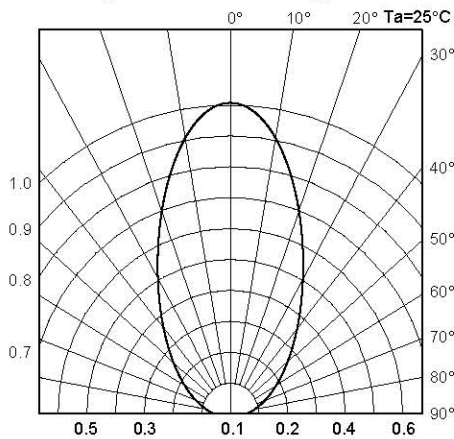
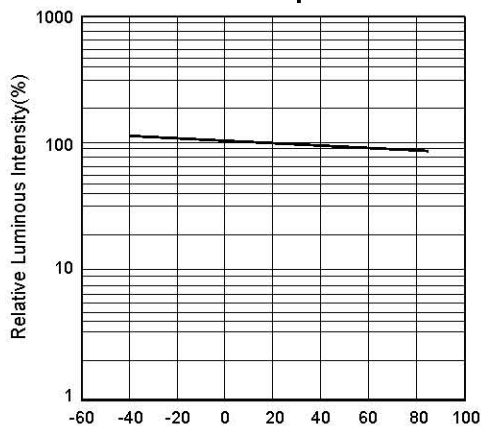
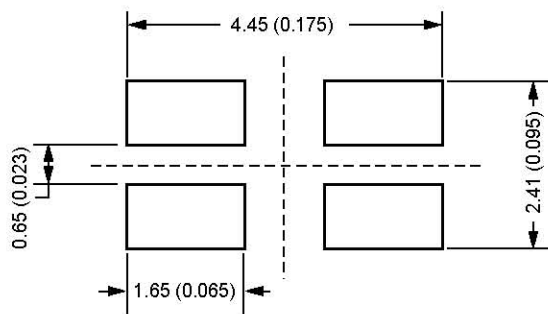


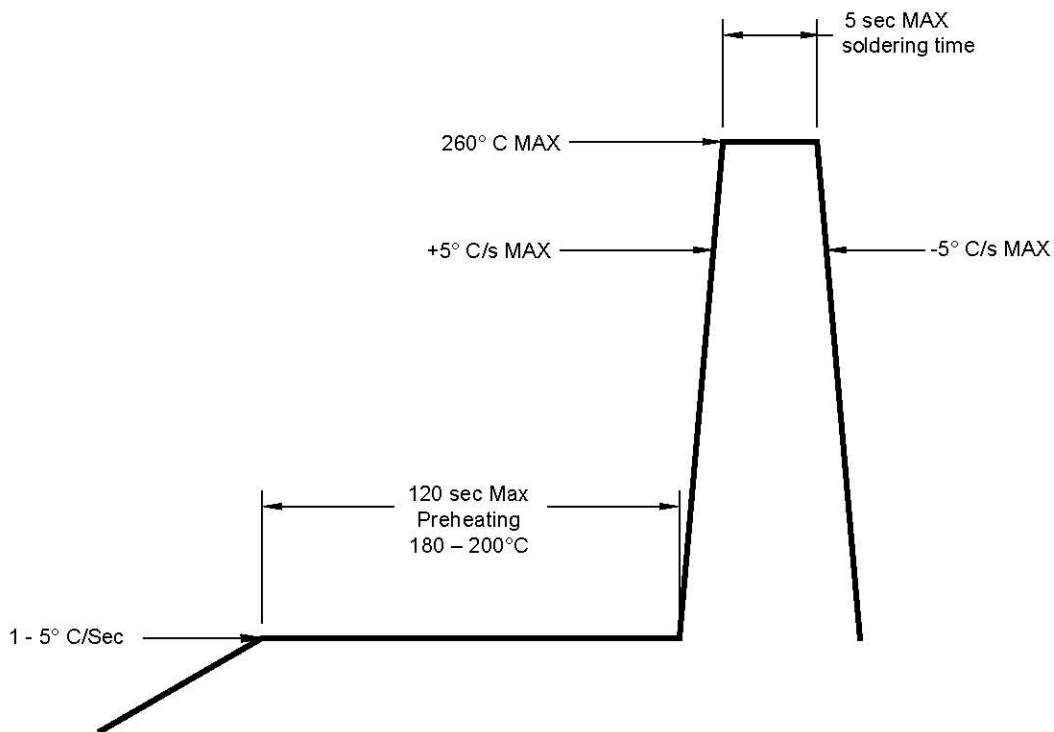
Fig. 6 Luminous Intensity vs. Ambient Temperature



Recommended Printed Circuit Board Pattern



Recommended IR Reflow Soldering Profile



Tape and Reel Dimensions

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CROSSVOLT™	GlobalOptoisolator™	MicroPak™	QFET®	SuperSOT™-8
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E ² CMOS™	βC™	MSXPro™	Quiet Series™	TINYOPTO™
EnSigna™	i-Lo™	OCX™	RapidConfigure™	TruTranslation™
FACT™	ImpliedDisconnect™	OCXPro™	RapidConnect™	UHC™
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