SURFACE MOUNT LED LAMP

SUPER BRIGHT PLCC-2 WITH REVERSE GULLWING

Preliminary

QTLP671C-EW.7819D   White

PACKAGE DIMENSIONS

TOP

SIDE

POLARITY
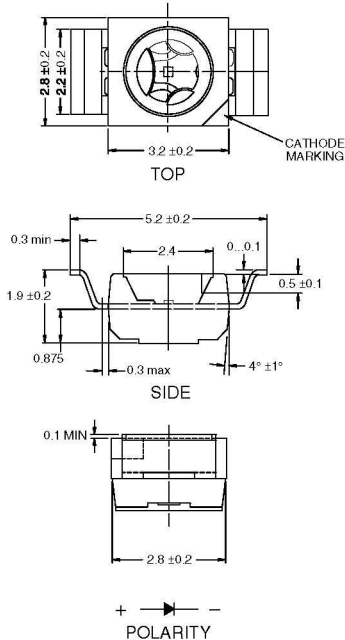
NOTE:
Dimensions of all drawings are in (mm).

APPLICATIONS

• Automotive interior lighting
• Status indication for consumer electronics and office equipment

DESCRIPTION

This surface mount LED is designed with flat top and sides for the ease of pick-and-place by automatic placement equipment. This is compatible with convective IR and vapor phase reflow soldering. The package size and configuration conform to EIA-535 BAAC standard specification for case size 3528 tantalum capacitor. This LED is ideal for backlighting and optical coupling into light pipes.

FEATURES

• GaN/Sapphire technology for -W
• Wide viewing angle of 120°
• Water clear optics
• Moisture-proof packaging
• Available in 0.315" (8mm) width tape on 7" (178mm) diameter reel; 2,000 units per reel

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

Parameter	Symbol	QTLP671C-EW.7819D	Units
Continuous Forward Current	I_F	20	mA
Peak Forward Current (f = 1.0 KHz, Duty Factor = 1/10)	I_{FM}	100	mA
Reverse Voltage (I_R = 10 µA)	V_R	5	V
Power Dissipation	P_D	80	mW
Operating Temperature	T_{OPR}	-40 to +85	°C
Storage Temperature	T_{STG}	-40 to +90	°C
Lead Soldering Time	T_{SOL}	260 for 5 sec	°C

ELECTRICAL / OPTICAL CHARACTERISTICS (T_A =25°C)

Part Number	Symbol	QTLP671C-EW.7819D	Condition
Luminous Intensity (mcd)			
S1	I_V	180 - 224	I_F = 20mA
S2		220 - 285	
T1		285 - 355	
T2		355 - 450	
Forward Voltage (V)			
V00	V_F	3.05 - 3.35	I_F = 20mA
V01		3.35 - 3.65	
Wavelength (nm)			
Peak	λ_P	—	I_F = 20mA
Dominant	λ_D	—	
Chromatic Coordinate	x,y	x = 0.290 - 0.320	I_F = 20mA
		y = 0.260 - 0.350	
Spectral Line Half Width (nm)	$\Delta\lambda$	—	I_F = 20mA
Viewing Angle (°)	$2\Theta^1/_2$	120	I_F = 20mA

TYPICAL PERFORMANCE CURVES
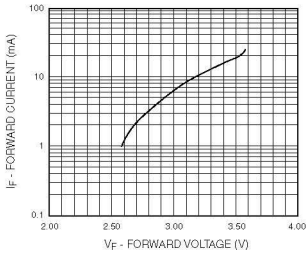
Fig. 1 Forward Current vs. Forward Voltage
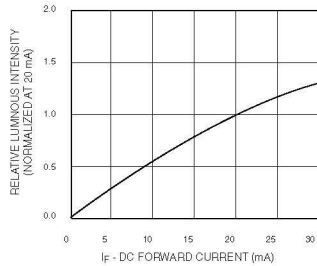
Fig. 2 Relative Luminous Intensity vs. DC Forward Current
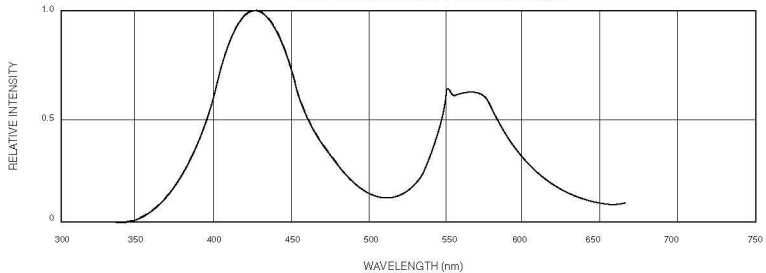
Fig. 3 Relative Intensity vs. Peak Wavelength

Fig.4 Radiation Diagram

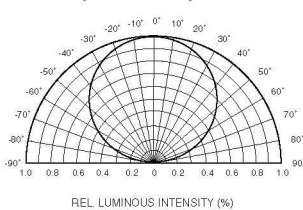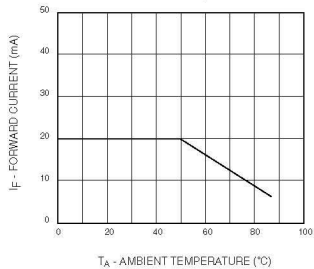Fig.5 Maximum Forward Current vs. Ambient Temperature

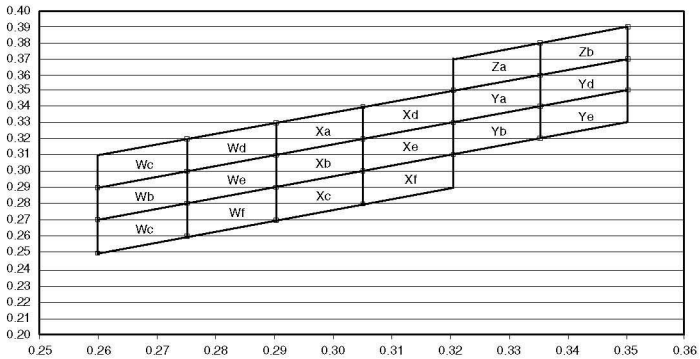# SURFACE MOUNT LED LAMP

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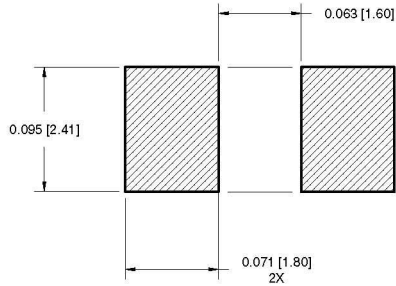## TYPICAL PERFORMANCE CURVES

Fig. 6 White Bin Structure

SURFACE MOUNT LED LAMP

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RECOMMENDED PRINTED CIRCUIT BOARD PATTERN

0.063 [1.60]

0.095 [2.41]

0.071 [1.80]
2X

RECOMMENDED REFLOW SOLDERING PROFILE
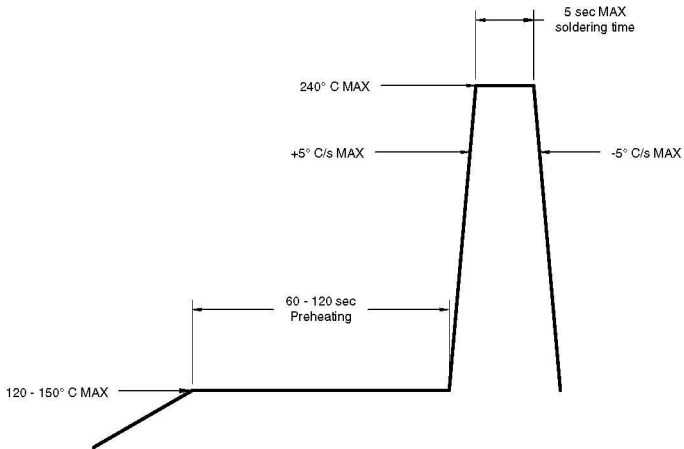
5 sec MAX
soldering time

240° C MAX

+5° C/s MAX

-5° C/s MAX

60 - 120 sec
Preheating

120 - 150° C MAX

EVERLIGHT

Preliminary

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TAPE AND REEL DIMENSIONS

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