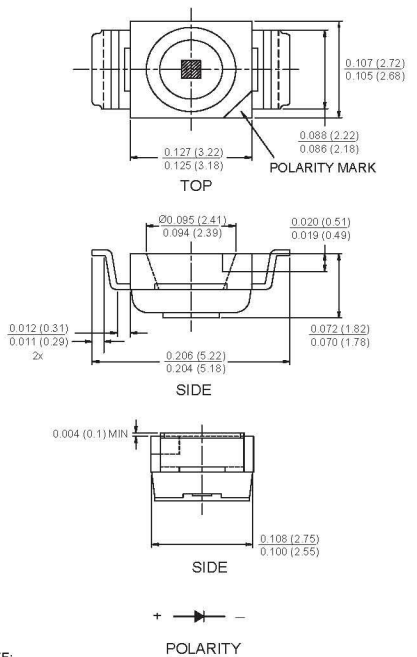
SURFACE MOUNT LED LAMP
STANDARD BRIGHT PLCC-2 WITH REVERSE GULLWING

Preliminary

QTLP671C-W White

PACKAGE DIMENSIONS



NOTE:
Dimensions of all drawings are in inches (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/SIC 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

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

Parameter	Symbol	QTLP671C-W	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	135	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
Electrostatic Discharge	ESD	1500	V

ELECTRICAL / OPTICAL CHARACTERISTICS (T_A =25°C)

Part Number	Symbol	QTLP671C-W	Condition
Luminous Intensity (mcd) Minimum Typical	I_V	 60 110	I_F = 20mA
Forward Voltage (V) Maximum Typical	V_F	 4.5 3.8	I_F = 20mA
Wavelength (nm) Peak Dominant	 λ_P λ_D	 — —	I_F = 20mA
Chromatic Coordinate	x,y	x = 0.26 y = 0.28	I_F = 20mA
Spectral Line Half Width (nm)	$\Delta\lambda$	—	I_F = 20mA
Viewing Angle (°)	$2\Theta^1/_2$	120	I_F = 20mA

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TYPICAL PERFORMANCE CURVES

Fig. 1 Forward Current vs. Forward Voltage

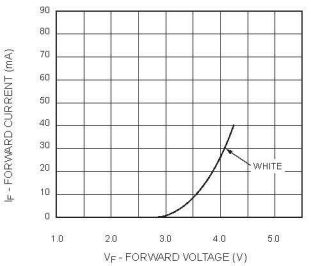


Fig. 2 Relative Luminous Intensity vs. DC Forward Current

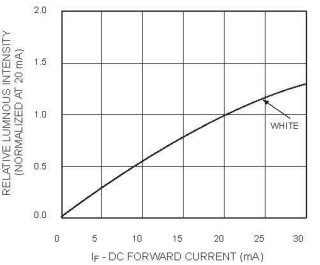


Fig. 3 Relative Intensity vs. Peak Wavelength

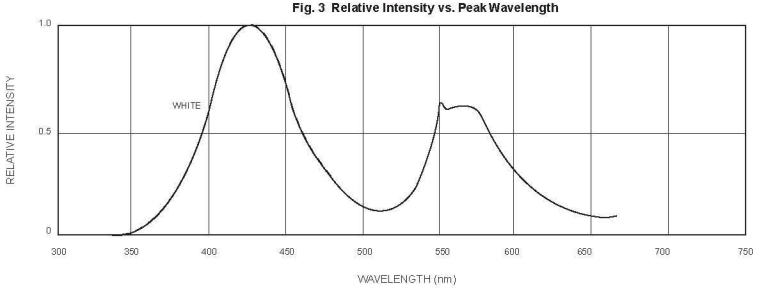


Fig.4 Radiation Diagram

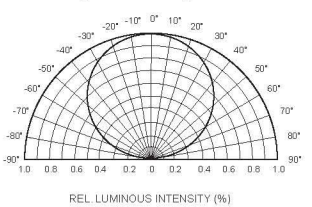
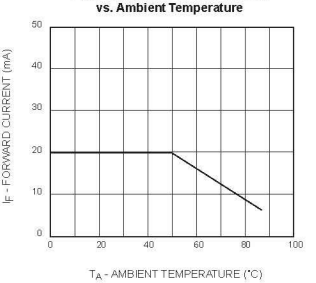
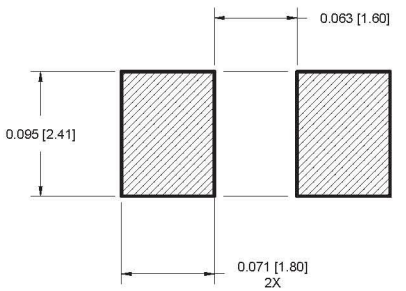


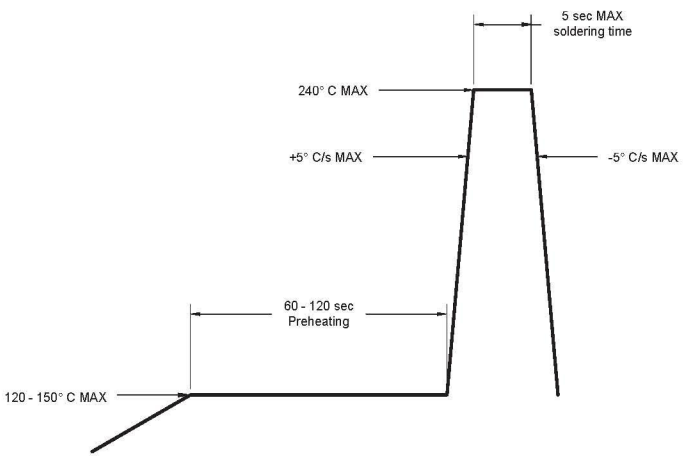
Fig.5 Maximum Forward Current vs. Ambient Temperature



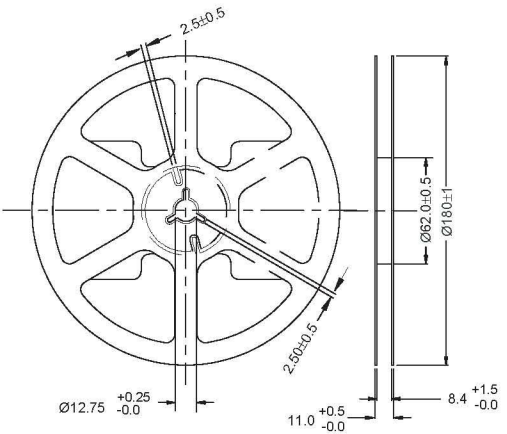
RECOMMENDED PRINTED CIRCUIT BOARD PATTERN

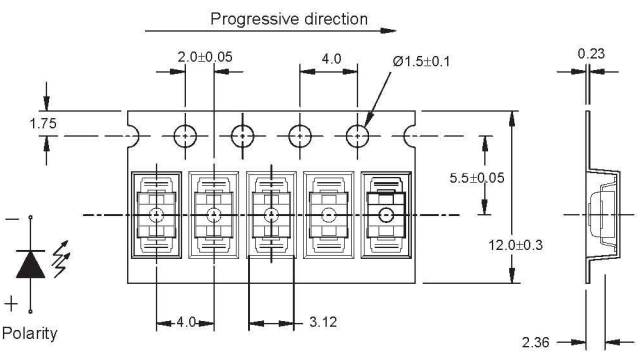


RECOMMENDED REFLOW SOLDERING PROFILE



TAPE AND REEL DIMENSIONS





Dimensional tolerance is ± 0.1mm unless otherwise specified

Angle: ± 0.5

Unit: mm

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2. A critical component in any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.