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Fairchild Semiconductor
QTLP670C5TR

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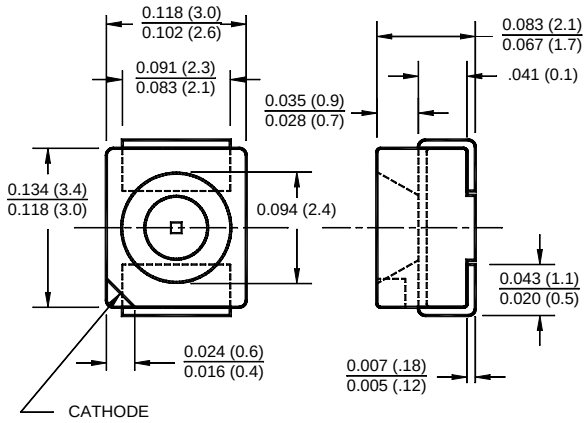
SURFACE MOUNT LED LAMP
PLCC - 2 PACKAGE

ORANGE	**QTLP670C-8**
PURE GREEN	**QTLP670C-5**

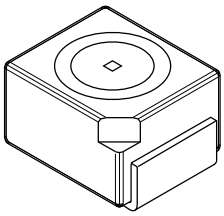
PACKAGE DIMENSIONS



NOTE:

Dimensions for all drawings are in inches (mm).

FEATURES



- Non-diffused package excellent for back-lighting and coupling to light pipe
- Low package profile
- Low power dissipation
- Wide viewing angle of 120°

DESCRIPTION

This surface mount lamp is designed with a flat top and sides for automatic placement equipment. It is compatible with convective IR and vapor phase reflow soldering and conductive epoxy attachment process. The package size and configuration conform to EIA-535 BAAC standard specification for case size 3528 tantalum capacitor.

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

Parameter	Symbol	Rating	Unit
Operating Temperature	T_{OPR}	-40 to +85	°C
Storage Temperature	T_{STG}	-40 to +100	°C
Lead Soldering Time - Reflow	T_{SOL}	240 for 5 sec	°C
Continuous Forward Current	I_F	30	mA
Peak Forward Current (f = 1.0 KHz, Duty Factor = 1/10)	I_F	160	mA
Reverse Voltage	V_R (I_R = 10 µA)	5	V
Power Dissipation	P_D	100	mW

ELECTRICAL / OPTICAL CHARACTERISTICS (T_A =25°C)

Part Number	QTLP670C-8 ORANGE	QTLP670C-5 PURE GREEN	Condition
Luminous Intensity (mcd)			I_F = 20 mA
Minimum	9	4	
Typical	15	6	
Forward Voltage (V)			I_F = 20 mA
Maximum	2.8	2.8	
Typical	2.0	2.0	
Peak Wavelength (nm)	610	555	I_F = 20 mA
Spectral Line Half Width (nm)	40	30	I_F = 20 mA
Viewing Angle (°)	120	120	I_F = 20 mA

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TYPICAL PERFORMANCE CURVES

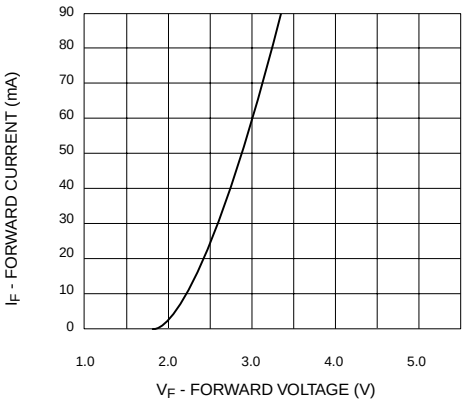

Fig. 1 Forward Current vs. Forward Voltage

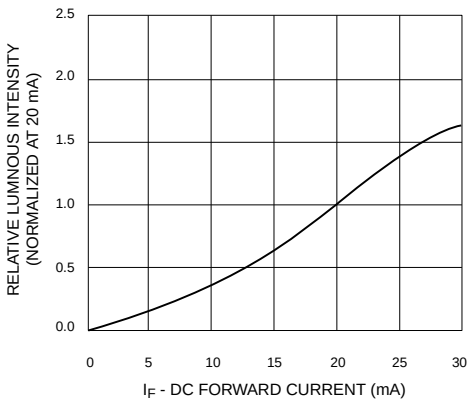

Fig. 2 Relative Luminous Intensity vs. DC Forward Current

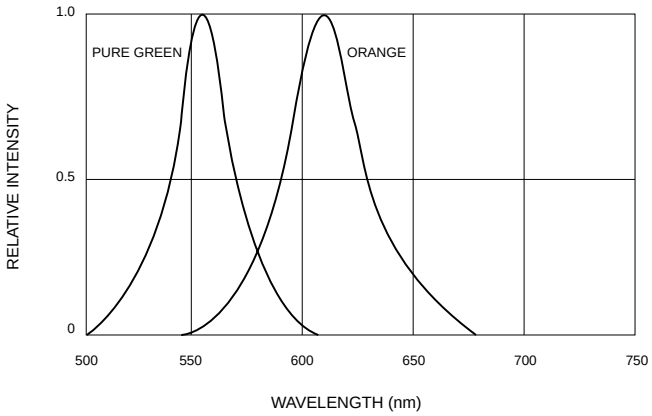

Fig. 3 Relative Intensity vs. Peak Wavelength

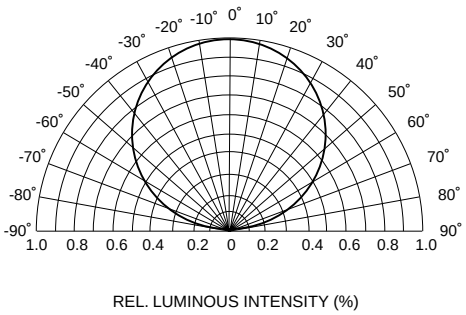

Fig.4 Radiation Diagram

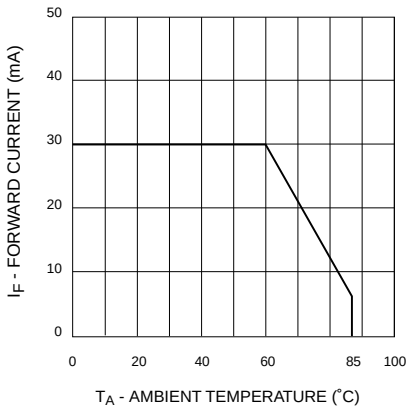

Fig. 5 Current Derating Curve

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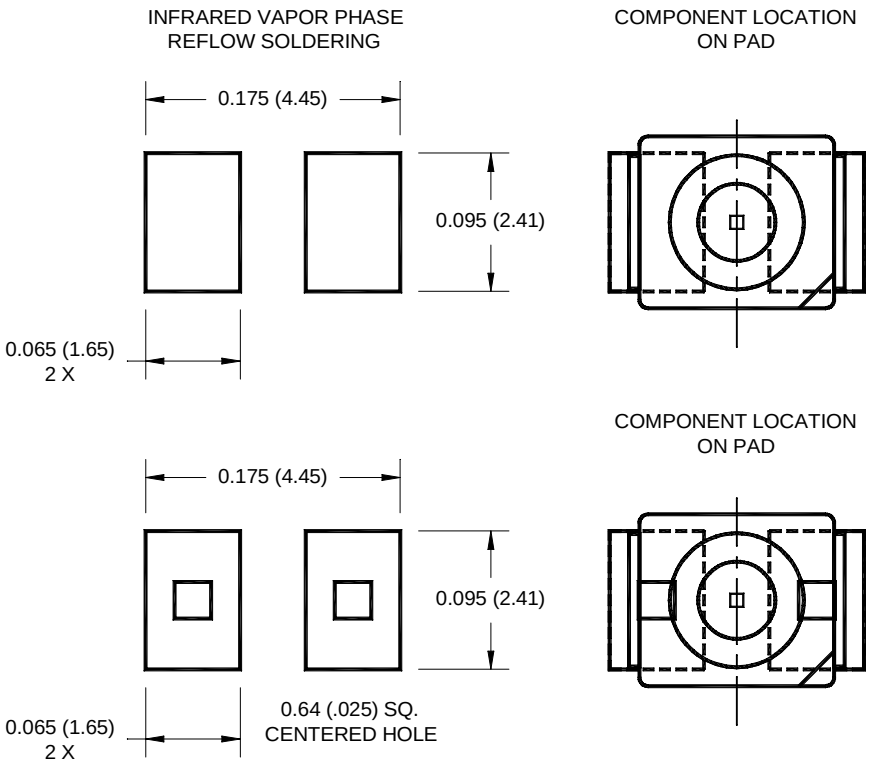
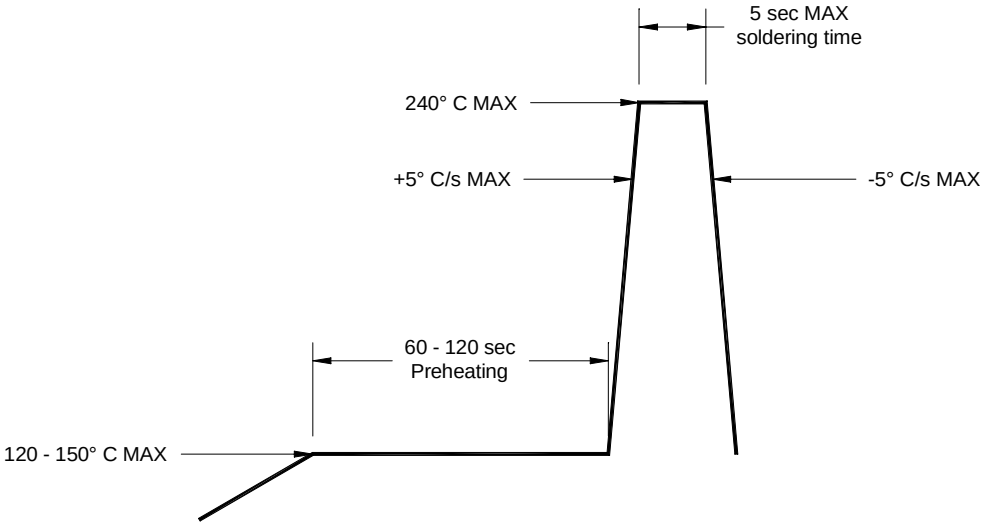
RECOMMENDED PRINTED CIRCUIT BOARD PATTERN



RECOMMENDED IR REFLOW SOLDERING PROFILE



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