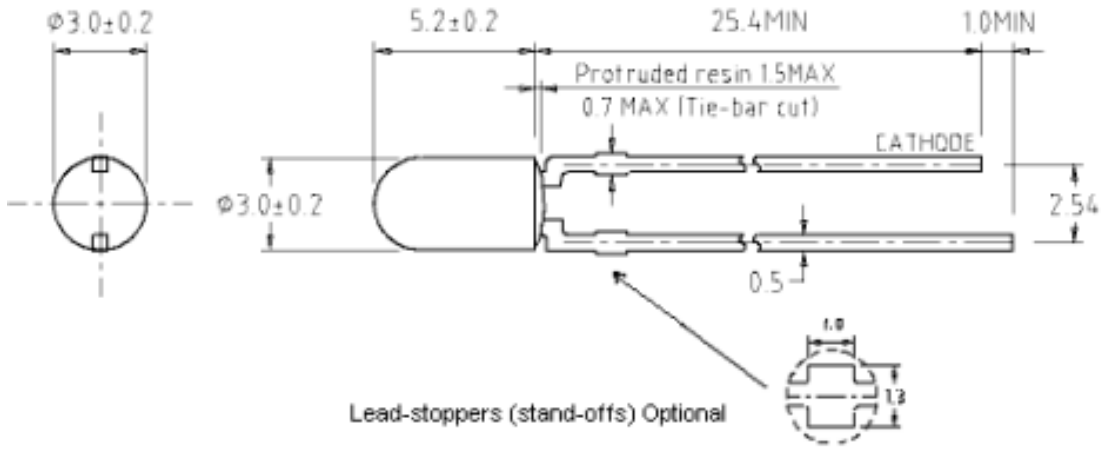
Ultra High Brightness Red LED Lamp

3mm Round Through-Hole Package

PL–LSRE3D60C series

FEATURES	APPLICATIONS
• Ultra High Output Red 626nm LED • TS AlInGaP die. • 3mm round resin mold; water Clear Lens. • Uniform and Wide viewing angle (60°). • Flangeless lens.	• Displays and signage • Automotive instrument backlighting • LCD backlighting • Decorative /Accent Lighting • Medical

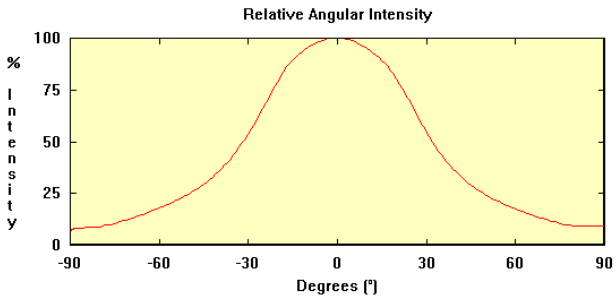
PACKAGE OUTLINE DIMENSIONS



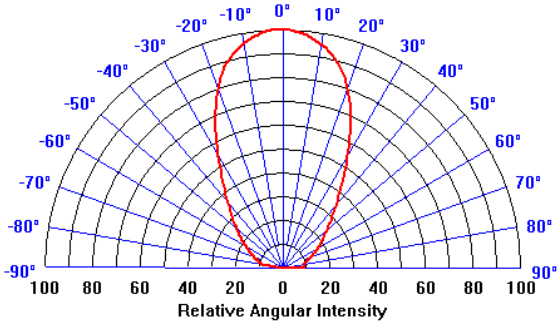
NOTES:
1. All dimensions are in millimeters.
2. Tolerance is ±0.25 mm unless otherwise noted.
3. Lead spacing is measured where the leads emerge from the package.
4. Specifications are subject to change without notice.

BEAM RADIATION PATTERN

Cartesian Plot



Polar Plot



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ABSOLUTE MAXIMUN RATING (at T_A = 25°C)

Parameter	Symbol	Value	Unit
Continuous Forward Current	I_F	30	mA
Peak Forward Current (1/16 Duty Cycle, 0.1msec Pulse width)	I_{Fp}	150	mA
Power Dissipation	P_d	72	mW
Forward Voltage	V_f	2.4	V
Derating Factor	D_F	0.4	mA / °C
Reverse Voltage	V_R	5.0	V
Operating Temperature	T_{opr}	-40 to +90	°C
Storage Temperature	T_{stg}	-40 to +110	°C
Lead Soldering Temperature (1.6mm (0.063") from body)	**260°C for 5 seconds**		

ELECTRICAL / OPTICAL CHARACTERISTICS (at T_A = 25°C)

Parameter		Symbol	Min	Typ	Max	Unit
Forward Voltage	I_F= 20 mA	V_F		2.2	2.4	V
Luminous Intensity	I_F= 20 mA	I_V	1000	1200	1500	mcd
Dominant Wavelength	I_F= 20 mA	λ_d	621	626	631	nm
Peak Wavelength	I_F= 20 mA	λ_p	632	637	642	nm
Spectrum Radiation Bandwidth	I_F= 20 mA	$\Delta\lambda$		20.5		nm
Viewing Angle		2θ 1/2	55	60	65	deg
Reverse Current	V_R= 5 V	I_R		10	100	μA

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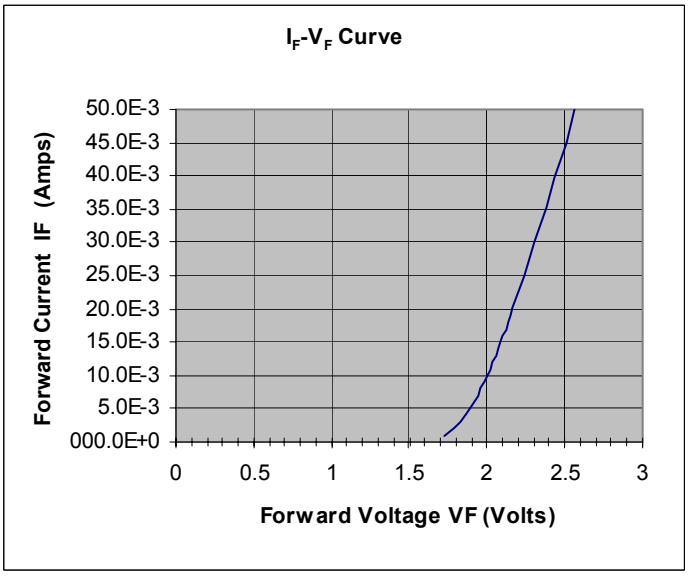
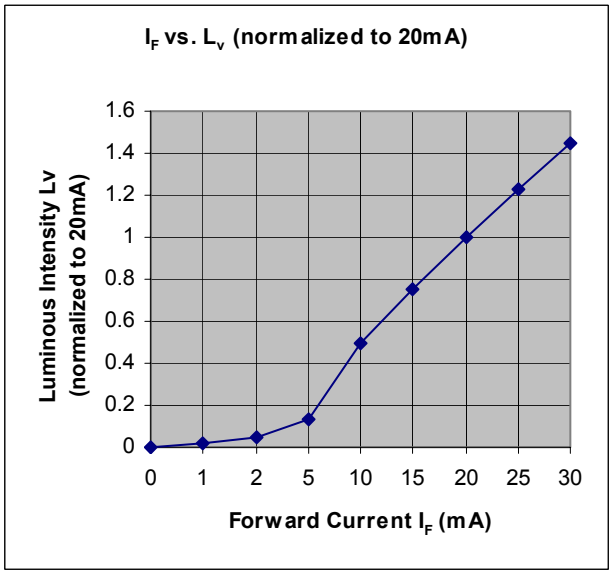
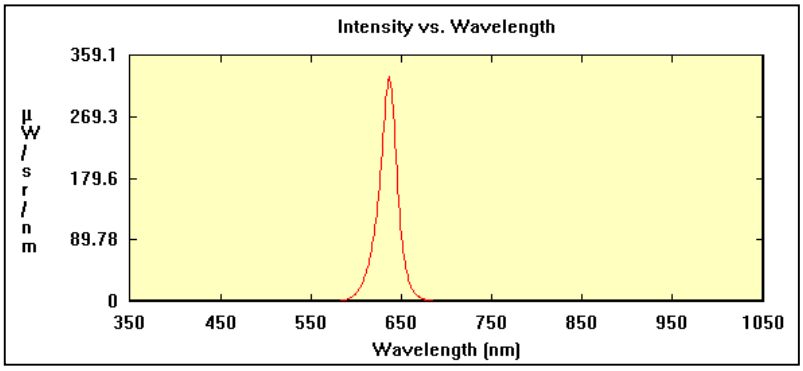
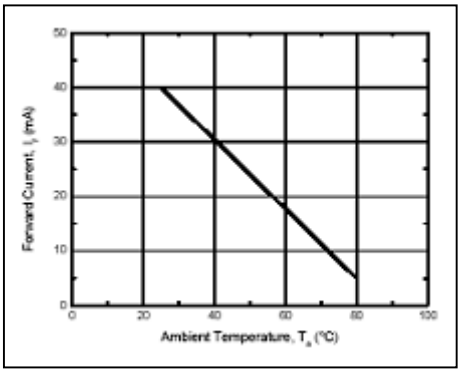
TYPICAL ELECTRICAL CHARACTERISTICS CURVES (at 20 mA DC / T_A = 25°C)









GENERAL NOTES:

1. Luminous Intensity (Iv), a photometric measurement, is obtained by measuring the LED lamp with a Spectral Goniometric Analyzer. It is the Light Energy (mW) emitted by the LED lamp in the forward axial direction (within a 3˚ solid angle (sr)).
2. Luminous Intensity measurement uncertainty is +/- 15% due to test procedures and equipment variations.
3. θ1/2 is the off-axis angle at which the luminous intensity is half the axial luminous intensity. Tolerance +/- 3°.
4. Dominant wavelength is derived from the 1931 CIE 2° Observer Chromaticity Diagram.
5. Peak and Dominant wavelength measurement uncertainty is +/- 0.05 due to variations.
6. Caution for ESD: Static Electricity and surges can damage the LED. It is recommended using a wristband or anti-electrostatic glove when handling the LED. All devices, equipment and machinery must be properly grounded.
7. Do not apply excess mechanical stress to the leads, especially when heated or while soldering.

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PRODUCT CODE BREAKDOWN