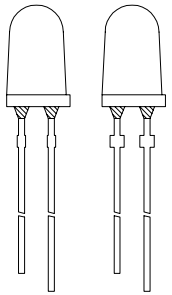
FEL-R514WSWCSX

5.0 mm Round White LED Lamp

Features

- Produced with steel leadframe
- Supplied with standard leads (**SL**)
- Supplied with lead stand off (**SO**)
- Water clear epoxy
- Products bin coded for hue
- Class II ESD Rating
- Suitable for architectural and speciality lighting
- Ideal for traffic signal and VMS applications

Electro / Optical Characteristics I_F = 20 mA T_a = 25° C

Lamp Package	LED Part Number	Emitting Colour	Leads	Die Material	Chromaticity Coordinates		Forward Voltage V_F		Luminous Intensity I_V		Viewing ∠ 2θ½
					x	y	typical	max	min	typical	
 SL SO	FEL-R514WSWCSL	White	Std	InGaN/SiC	0.31	0.31	3.20	3.80	13000	18000	14
	FEL-R514WSWCSO	White	Stand off	InGaN/SiC	0.31	0.31	3.20	3.80	13000	18000	14
5.0 mm	Units				Typical		V		mcd		deg

Maximum Ratings T_a = 25° C (Derate above 25° C)

Characteristic	Condition	Symbol	Rating	Units
Pulse Forward Current	t ≤ 0.1ms, D = 1/10	I_{FP}	100	mA
DC Forward Current		I_F	30	mA
Reverse Voltage	I_R = 5 µA	V_R	5	V
Operating Temperature		T_{opr}	- 30 to + 85	° C
Storage Temperature		T_{stg}	- 40 to + 100	° C
Lead soldering temperature	3 mm from body - max 10 s	T_s	260	° C

The maximum forward current for LEDs (I_F max) is determined by the thermal resistance between the LED p-n junction and the ambient environment (èja). Since thermal resistance is strongly application dependant, designers should take care to observe design limits. It is critical to maintain both I_F max and èja within design limits in order to optimise LED performance in terms of colour and intensity change as a factor of time. Thermal derating characteristics for temperatures above T_a = 25°C are available upon request.

WARNING

This range of LEDs is produced with die having a high radiant flux. Care must be taken when viewing the product at close range as the light may be intense enough to cause damage to the human eye.

It is the responsibility of the customer to verify the suitability of the product for the application.

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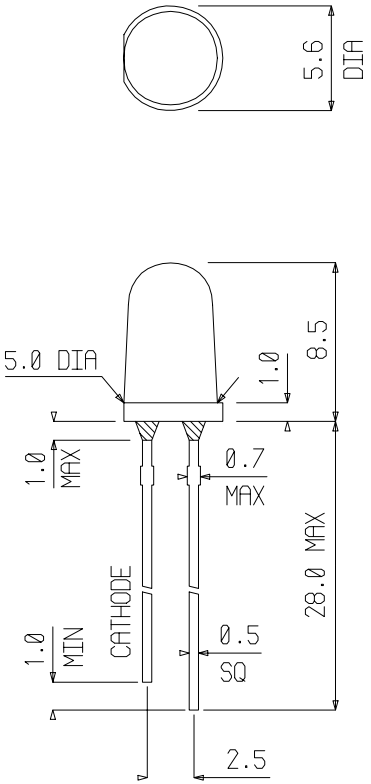
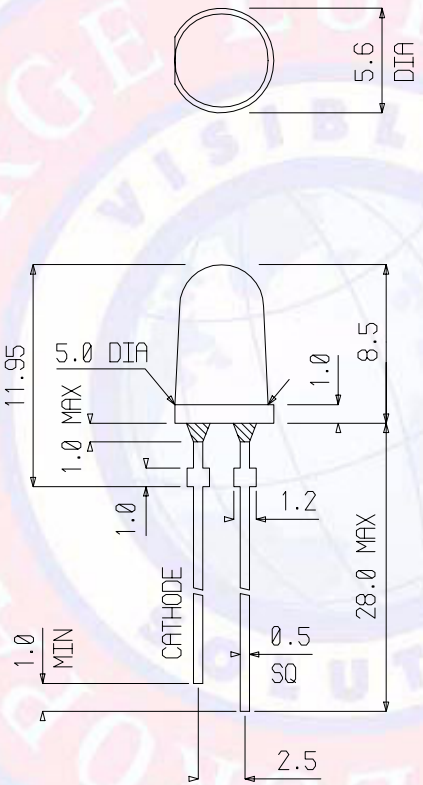
Package Outlines

Dimensions in mm Tol ± 0.2 mm unless stated

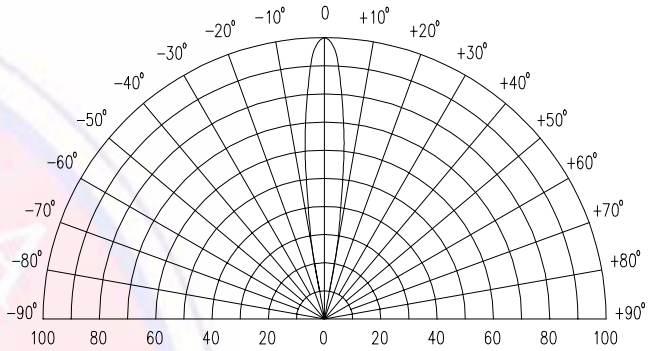
Standard Leads



Leads with stand off

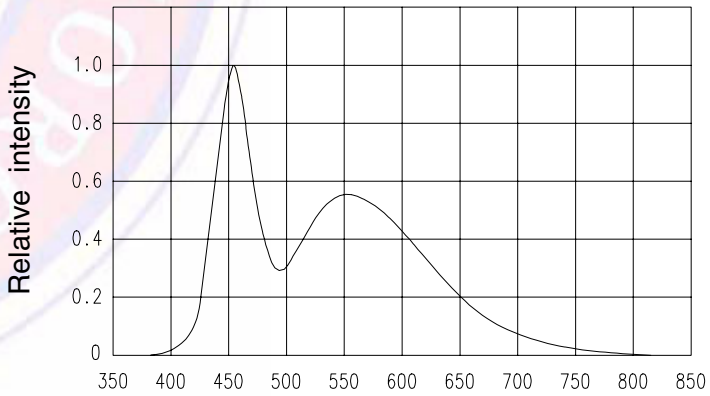


Radiation Diagram $T_a = 25^oC$ $I_F = 20$ mA



Relative angular intensity

Emission Spectrum $T_a = 25^oC$ $I_F = 20$ mA



Wavelength nm

Note: Industry standard procedures regarding static must be observed when handling this product.

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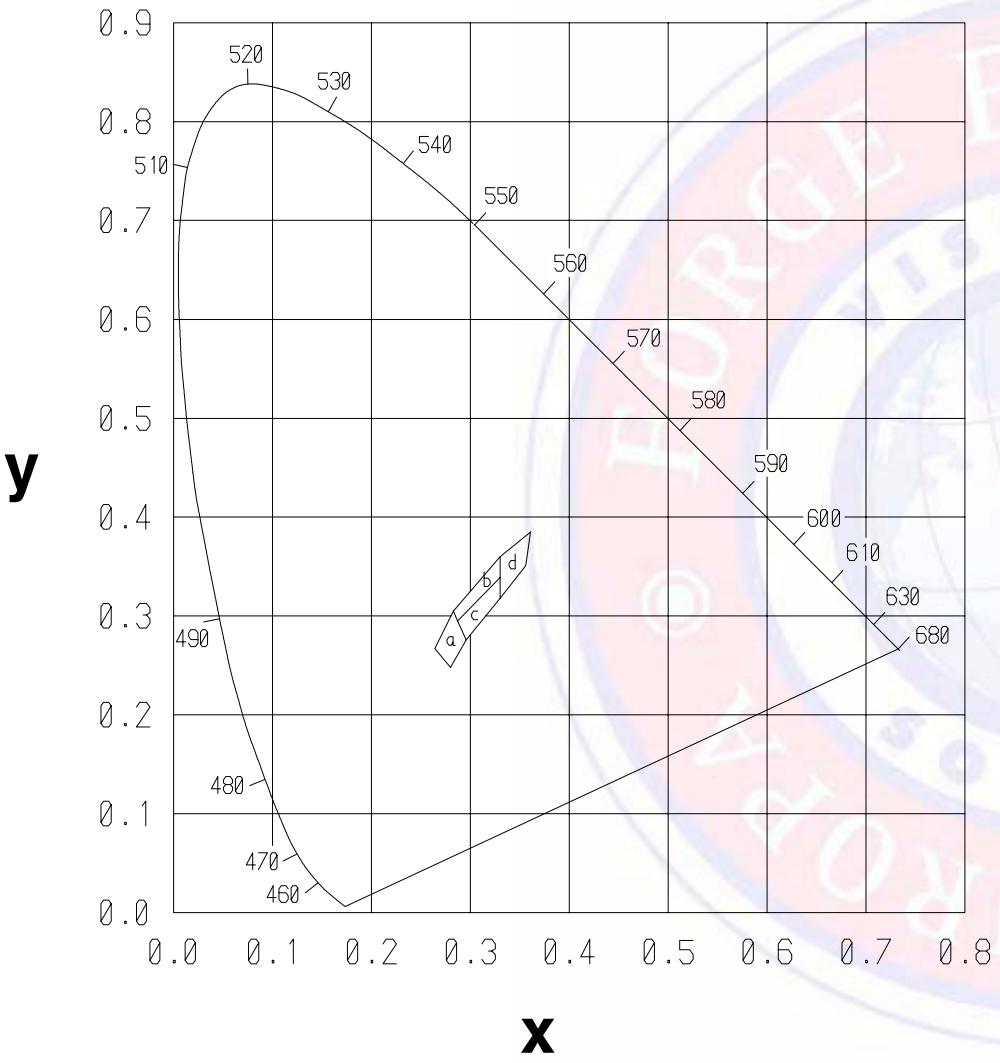
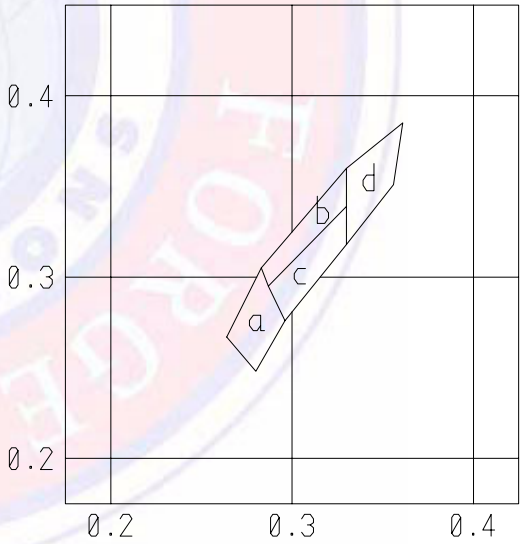
CIE 1931 - Chromaticity Diagram



Ranking Codes

a	X	0.264	0.280	0.296	0.283
	Y	0.267	0.248	0.276	0.305
b	X	0.283	0.287	0.330	0.330
	Y	0.305	0.295	0.339	0.360
c	X	0.287	0.296	0.330	0.330
	Y	0.295	0.276	0.318	0.339
d	X	0.330	0.330	0.356	0.361
	Y	0.360	0.318	0.351	0.385

Measurement Tolerance x and y ± 0.01



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