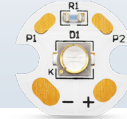


LE-S1

Light Engine

Data Sheet



Product Overview

The LE-S1 is a high-intensity focused spot light engine boasting high-intensity illumination and even light distribution to a concentrated area. It consists of one high power LED and one RTD sensor to measure the board temperature. With a compact design, it's perfect for integration into UV curing spot curing systems or other setups that require intense illumination in a small area. Customizable lenses are available to focus the light onto 3 mm, 5 mm, and 8 mm spot diameters at a working distance of 5 mm - ideal for applications with limited working space.

The light engine is available in 3 standard wavelengths: 365, 385, 405 nm.

Specifications

Parameter	Symbol	Condition	TYP Value	Unit
Number of LEDs	N	-	1	-
Operating Ambient Temperature	T_{amb}	0-65%, non-condensing	10-40	°C
Storage Temperature	T_{stg}	Unbiased, 10-80% RH, non-condensing	-40-100	°C
Operating System Temperature	T_{opr}	I_{max}	< 85	°C
Maximum Current	I_{max}	T_{amb}, T_{opr}	1.4	A
Maximum Voltage	V_F	I_{max}, T_{opr}	3.8	V
Radiant Flux	P_O	$I=14A, T_{LED}=25^{\circ}C, 50\% RH, \lambda=365nm$	1.4	W
		$I=14A, T_{LED}=25^{\circ}C, 50\% RH, \lambda=385nm$	1.65	
		$I=14A, T_{LED}=25^{\circ}C, 50\% RH, \lambda=405nm$	1.63	
Full Width Half Maximum Angle	θ	$I=1A, T_{LED}=25^{\circ}C, 50\% RH$	65	°
RTD Impedance ¹	R_{TH}	$T_{opr} = 25^{\circ}C$	1.0	k Ω

¹Detail of the RTD sensor circuit:

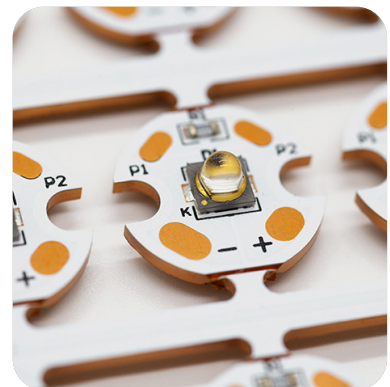
I. Material: Pt-1000

Features

- Surface mount technology
- High thermal conductivity metal core-based PCBs
- 1 high power UV LED
- 1 RTD sensor

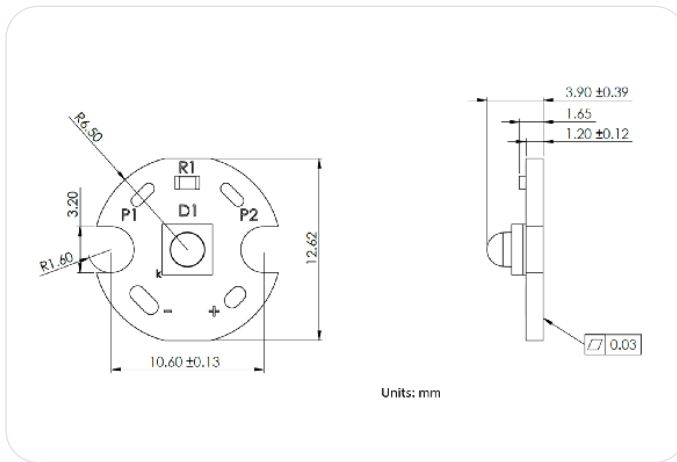
Typical Applications

- UV spot curing system
- UV torch



ALEO LE-S1 Light Engine

Dimensions



Please note that most applications are unique. ALEO does not warrant the fitness of the product for the intended application. Any warranty applicable to the product, its application and use is strictly limited to that contained in ALEO standard Conditions of Sale published on our website. ALEO recommends that any intended application be evaluated and tested by the user to ensure that desired performance criteria are satisfied. ALEO is willing to assist users in their performance testing and evaluation. APDS03



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