

# sparrow

OEM one-diode laser module series

## Datasheet

Ushio HL63373HD

### Absolute Maximum Ratings

Item	Condition	Symbol	Rating	Unit
Optical Output Power	CW	$P_{\text{Optical}}$	1100	mW
Optical Output Power	pulsed	$P_{\text{Optical}}$	1300	mW
Raw Diode Operating Temperature*	-	$T_{\text{Case}}$	-10 to +45	°C
Raw Diode Storage Temperature*	-	$T_{\text{Storage}}$	-40 to +85	°C

Operation outside these conditions may damage the device. Operation at maximum ratings influence lifetime.

**Attention: Use an appropriately sized heatsink and mount module with supplied thermal compound.**

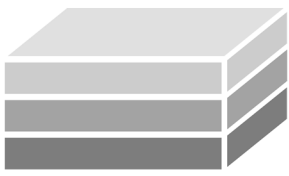
\* Temperature measured at diode backplate

### Optical and Electrical Characteristics

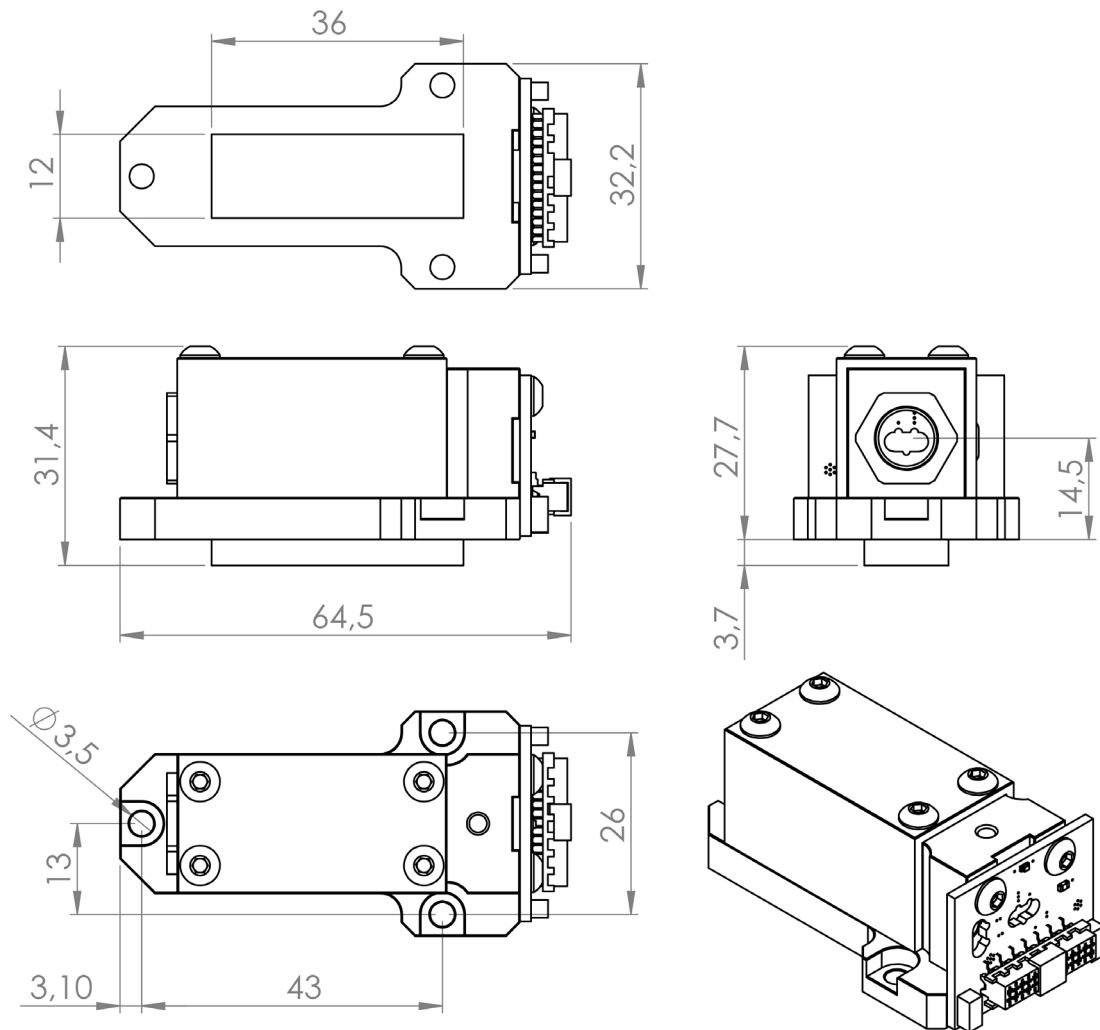
Item	Condition	Symbol	Min.	Typ.	Max.	Unit
Optical Output Power	$T_{\text{Case}}=25^{\circ}\text{C}$	$P_{\text{O}}$	-	1000	-	mW
Optical Output Power	Pulsed * <sup>1</sup>	$P_{\text{O}}$	-	1200	-	mW
Dominant Wavelength	$P_{\text{O}}=1000\text{mW}$	$\lambda_{\text{d}}$	632	638	644	nm
Threshold Current	CW	$I_{\text{th}}$	-	200	250	mA
Operating Current	CW	$I_{\text{op}}$	-	1000	1300	mA
Operating Current	Pulsed * <sup>1</sup>	$I_{\text{p}}$	-	-	-	A
Operating Voltage	$P_{\text{O}}=1000\text{mW}$	$U_{\text{op}}$	-	2.4	2.8	V
Slope Efficiency	CW	$\eta$	-	-	-	W/A
Raw Diode Beam Divergence (FWHM)	$P_{\text{O}}=1000\text{mW}$	$\theta_{\parallel}$	1	10	20	deg
	$P_{\text{O}}=1000\text{mW}$	$\theta_{\perp}$	25	35	45	deg
Beam Size	Without Correction	-	-	1.45 x 2.8	-	mm
Beam Size	With Correction	-	-	5.1 x 2.9	-	mm
Beam Divergence (full angle)	Without Correction	-	-	6.0	-	mrad
Beam Divergence (full angle)	With Correction	-	-	1.6	-	mrad
Heatsink Temperature Range * <sup>2</sup>	With TEC ( $T_{\text{c}}=25^{\circ}\text{C}$ )	T	-20	-	90	°C
Power Consumption * <sup>2</sup>	Without TEC	$P_{\text{el}}$	-	2	-	W
Power Consumption * <sup>2</sup>	With TEC	$P_{\text{el}}$	-	43	-	W

\*<sup>1</sup> Pulse Condition: Pulse frequency  $\geq 120\text{Hz}$ , Duty  $\leq 30\%$

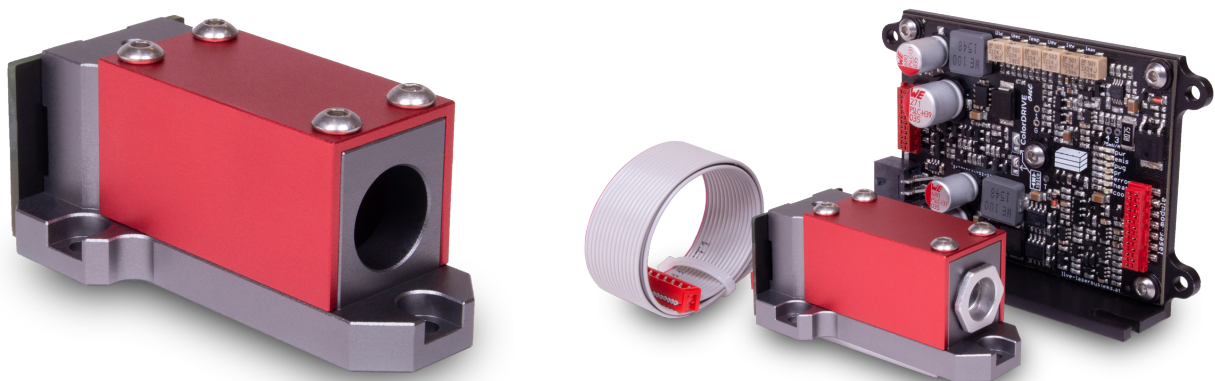
\*<sup>2</sup> with ColorDRIVE one,  $V_{\text{in}} = +10$  to  $24V_{\text{DC}}$



## Technical Drawings



## Images



## Contact

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