LIVE LASERSYSTEMS
Development Production Service Rental

sparrow
OEM one-diode laser module series

Datasheet

Ushio HL65213HD

Absolute Maximum Ratings

Item	Condition	Symbol	Rating	Unit
Optical Output Power	CW	$P_{Optical}$	1200	mW
Optical Output Power	pulsed	$P_{Optical}$	1500	mW
Raw Diode Operating Temperature*	-	T_{Case}	-10 to +45	°C
Raw Diode Storage Temperature*	-	$T_{Storage}$	-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

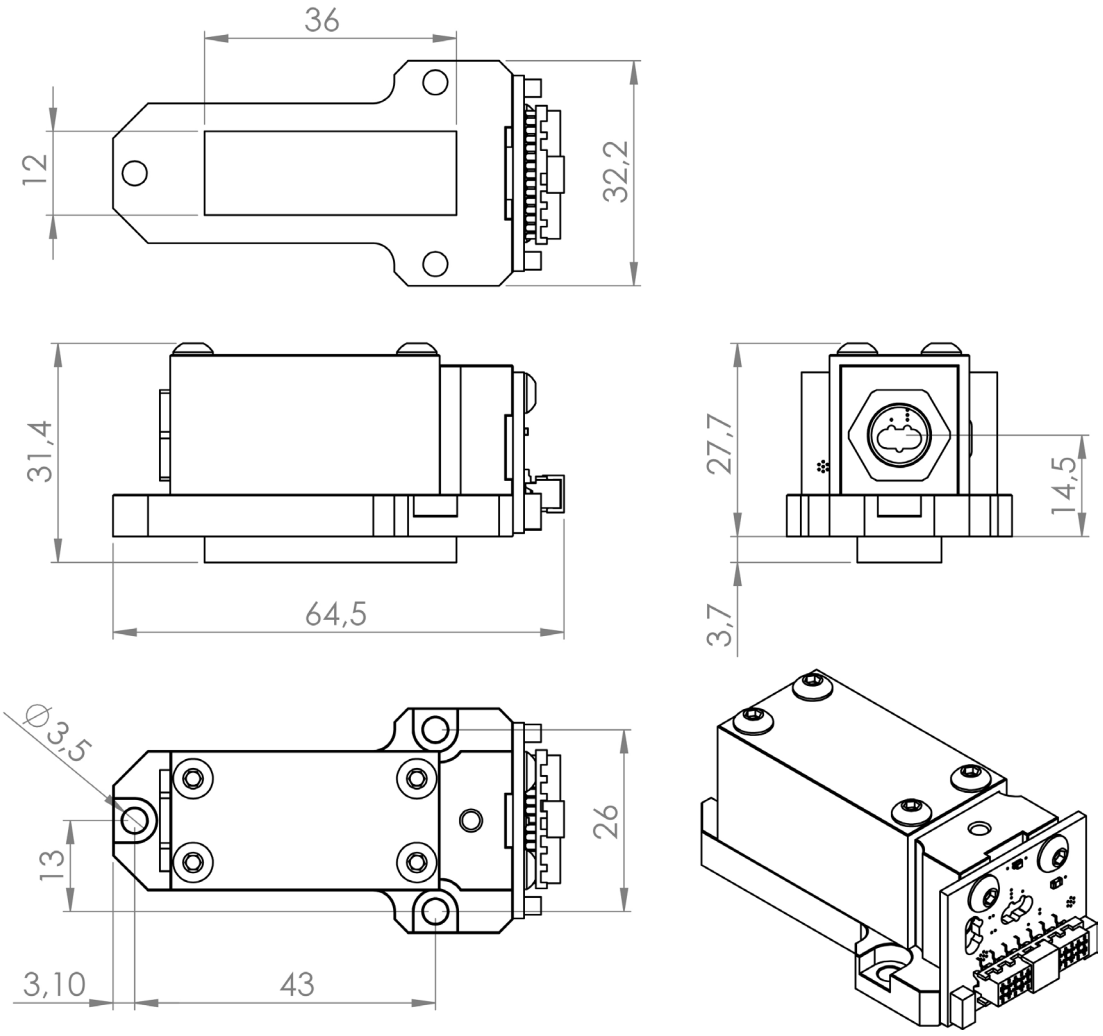
Optical and Electrical Characteristics

Item	Condition	Symbol	Min.	Typ.	Max.	Unit
Optical Output Power	T_{Case}=25°C	P_O	-	1100	-	mW
Optical Output Power	Pulsed *[1]	P_O	-	1400	-	mW
Dominant Wavelength	P_O=1200mW	λ_d	654	659	664	nm
Threshold Current	CW	I_{th}	-	450	600	mA
Operating Current	CW	I_{op}	-	1350	1600	mA
Operating Current	Pulsed *[1]	I_p	-	-	-	A
Operating Voltage	P_O=1200mW	U_{op}	-	2.3	2.7	V
Slope Efficiency	CW	η	-	-	-	W/A
Raw Diode Beam Divergence (FWHM)	P_O=1200mW	$\theta_{\parallel}$	3	10	20	deg
	P_O=1200mW	$\theta_{\perp}$	23	33	43	deg
Beam Size	Without Correction	-	-	tbd.	-	mm
Beam Size	With Correction	-	-	tbd.	-	mm
Beam Divergence (full angle)	Without Correction	-	-	tbd.	-	mrad
Beam Divergence (full angle)	With Correction	-	-	tbd.	-	mrad
Heatsink Temperature Range *[2]	With TEC (T_C=25°C)	T	-20	-	90	°C
Power Consumption *[2]	Without TEC	P_{el}	-	3	-	W
Power Consumption *[2]	With TEC	P_{el}	-	44	-	W

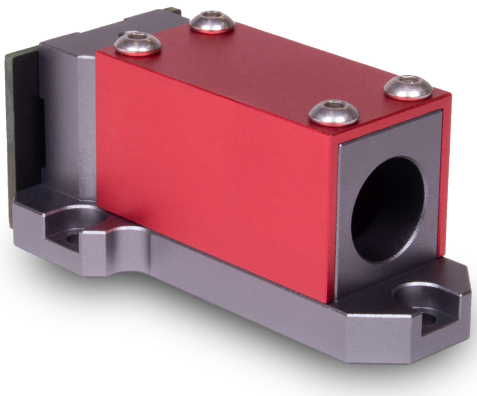
*[1] Pulse Condition: Pulse frequency ≥ 120Hz, Duty ≤ 30%
*[2] with ColorDRIVE one, V_{in}= +10 to 24V_{DC}

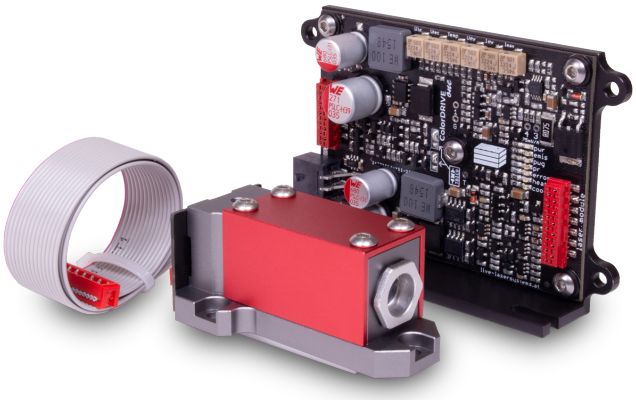
Subject to change without prior notice.
Last change: August 2022

Technical Drawings



Images





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