

sparrow

OEM one-diode laser module series

Datasheet

Ushio HL67001DG

Absolute Maximum Ratings

Item	Condition	Symbol	Rating	Unit
Optical Output Power	$T_{Case} = -10 \text{ to } 60^\circ\text{C}$	$P_{Optical}$	210	mW
Optical Output Power	$T_{Case} = 75^\circ\text{C}$	$P_{Optical}$	150	mW
Raw Diode Operating Temperature*	-	T_{Case}	-10 to +75	$^\circ\text{C}$
Raw Diode Storage Temperature*	-	$T_{Storage}$	-40 to +85	$^\circ\text{C}$

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.

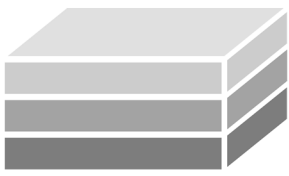
* Temperature measured at diode backplate

Optical and Electrical Characteristics

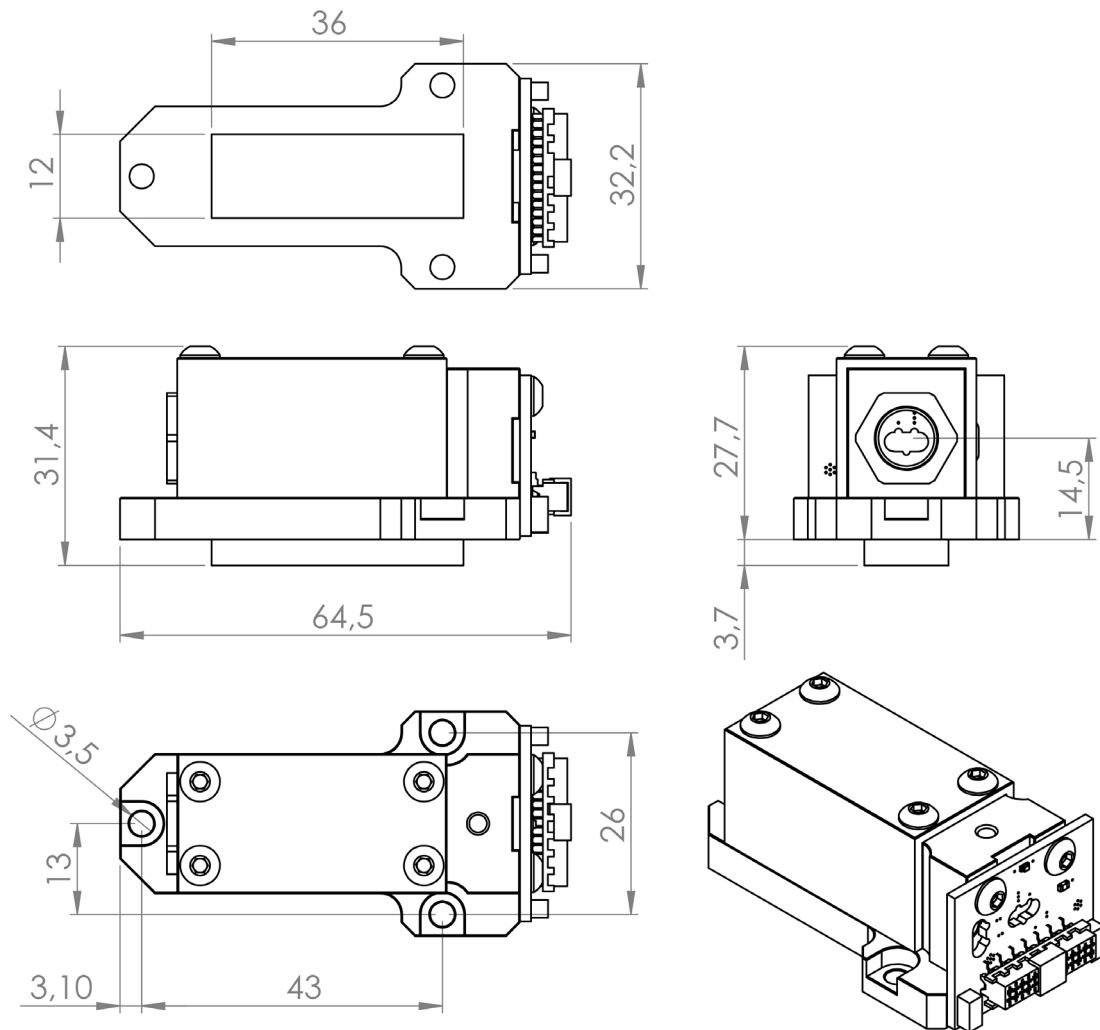
Item	Condition	Symbol	Min.	Typ.	Max.	Unit
Optical Output Power	$T_{Case} = 25^\circ\text{C}$	P_o	-	200	-	mW
Optical Output Power	Pulsed *1	P_o	-	-	-	mW
Dominant Wavelength	$P_o = 200\text{mW}$	λ_d	670	675	680	nm
Threshold Current	CW	I_{th}	-	55	85	mA
Operating Current	CW	I_{op}	-	225	265	mA
Operating Current	Pulsed *1	I_p	-	-	-	A
Operating Voltage	$P_o = 200\text{mW}$	U_{op}	-	2.7	3.2	V
Slope Efficiency	CW	η	-	-	-	W/A
Raw Diode Beam Divergence (FWHM)	$P_o = 200\text{mW}$	$\theta_{ }$	5	8	11	deg
	$P_o = 200\text{mW}$	θ_{\perp}	11	15	19	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 ($T_c = 25^\circ\text{C}$)	T	-20	-	90	$^\circ\text{C}$
Power Consumption *2	Without TEC	P_{el}	-	1	-	W
Power Consumption *2	With TEC	P_{el}	-	42	-	W

*1 Pulse Condition: Pulse frequency $\leq 30\text{ns}$, Duty $\leq 35\%$

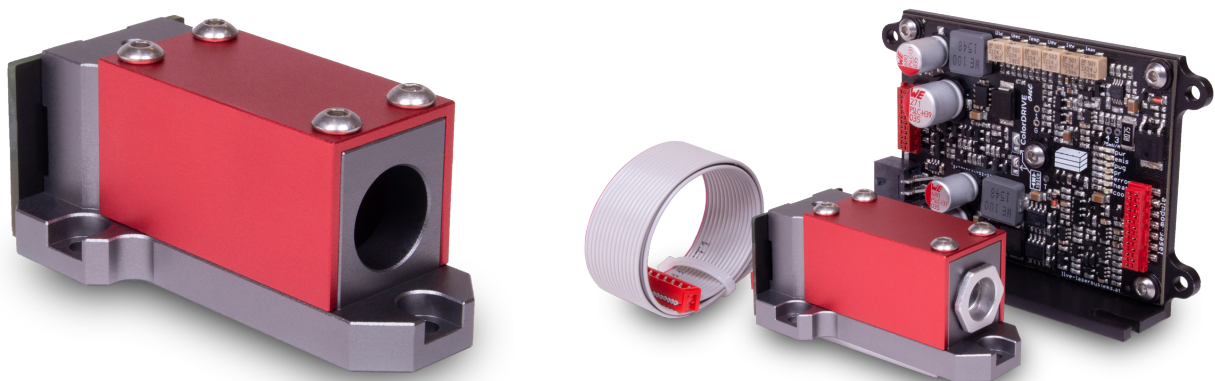
*2 with ColorDRIVE one, $V_{in} = +10 \text{ to } 24V_{DC}$



Technical Drawings



Images



Contact

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