

# sparrow

OEM one-diode laser module series

## Datasheet

Ushio HL69001DG

### 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.**

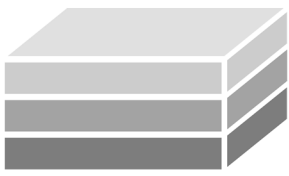
\* Temperature measured at diode backplate

### Optical and Electrical Characteristics

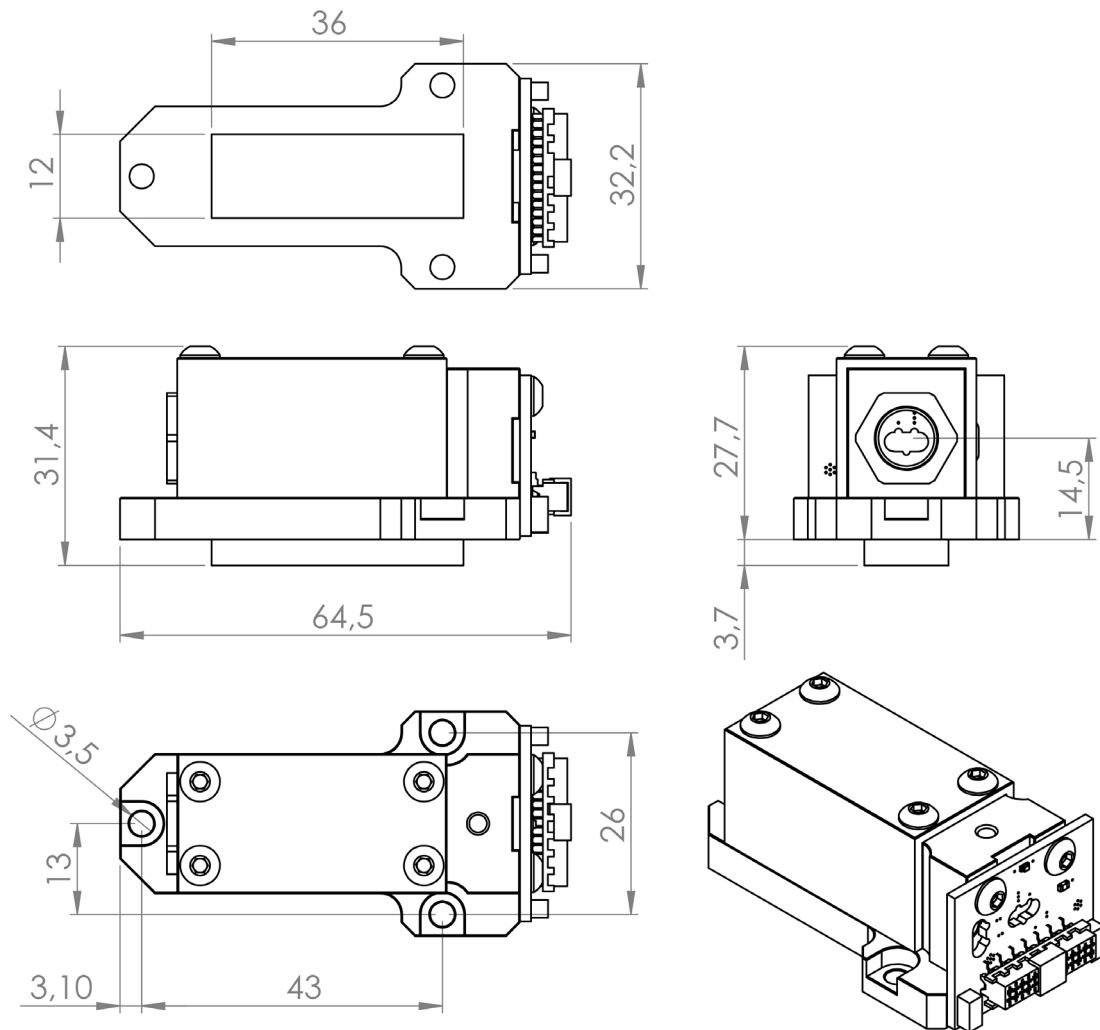
Item	Condition	Symbol	Min.	Typ.	Max.	Unit
Optical Output Power	$T_{Case} = 25^\circ\text{C}$	$P_o$	-	200	-	mW
Optical Output Power	Pulsed *1	$P_o$	-	-	-	mW
Dominant Wavelength	$P_o = 200\text{mW}$	$\lambda_d$	685	690	695	nm
Threshold Current	CW	$I_{th}$	-	50	80	mA
Operating Current	CW	$I_{op}$	-	230	270	mA
Operating Current	Pulsed *1	$I_p$	-	-	-	A
Operating Voltage	$P_o = 200\text{mW}$	$U_{op}$	-	2.75	3.25	V
Slope Efficiency	CW	$\eta$	-	-	-	W/A
Raw Diode Beam Divergence (FWHM)	$P_o = 200\text{mW}$	$\theta_{  }$	5	8	11	deg
	$P_o = 200\text{mW}$	$\theta_{\perp}$	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  $\leq 35\%$

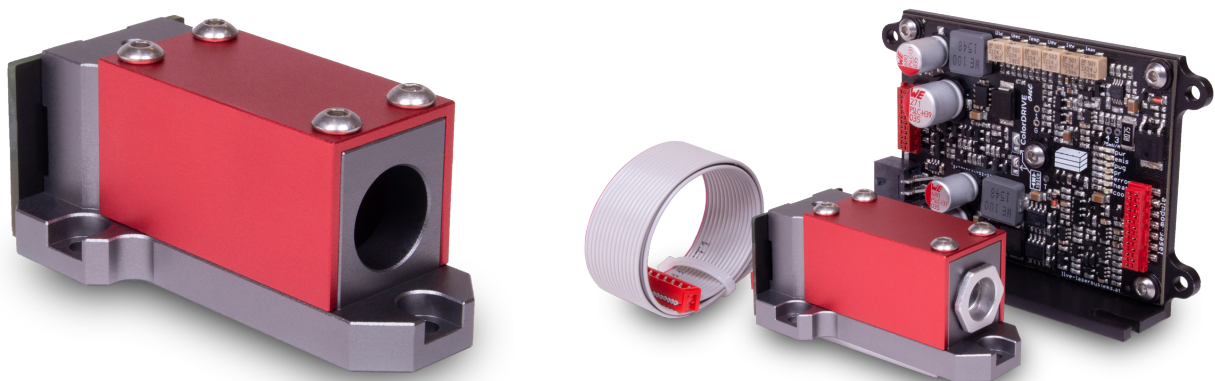
\*2 with ColorDRIVE one,  $V_{in} = +10 \text{ to } 24V_{DC}$



## Technical Drawings



## Images



## Contact

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