

sparrow

OEM one-diode laser module series

Datasheet

Ushio HL40033G

Absolute Maximum Ratings

Item	Condition	Symbol	Rating	Unit
Optical Output Power	$T_{Case}=25^{\circ}C$	$P_{Optical}$	1100	mW
Allowable Reverse Voltage	$T_{Case}=25^{\circ}C$	V_r	2	V
Raw Diode Operating Temperature*	-	T_{Case}	0 to +30	$^{\circ}C$
Raw Diode Storage Temperature*	-	$T_{Storage}$	-40 to +85	$^{\circ}C$

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.

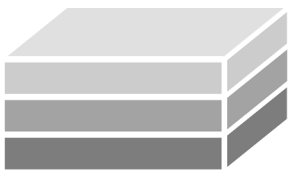
* Temperature measured at diode backplate

Optical and Electrical Characteristics

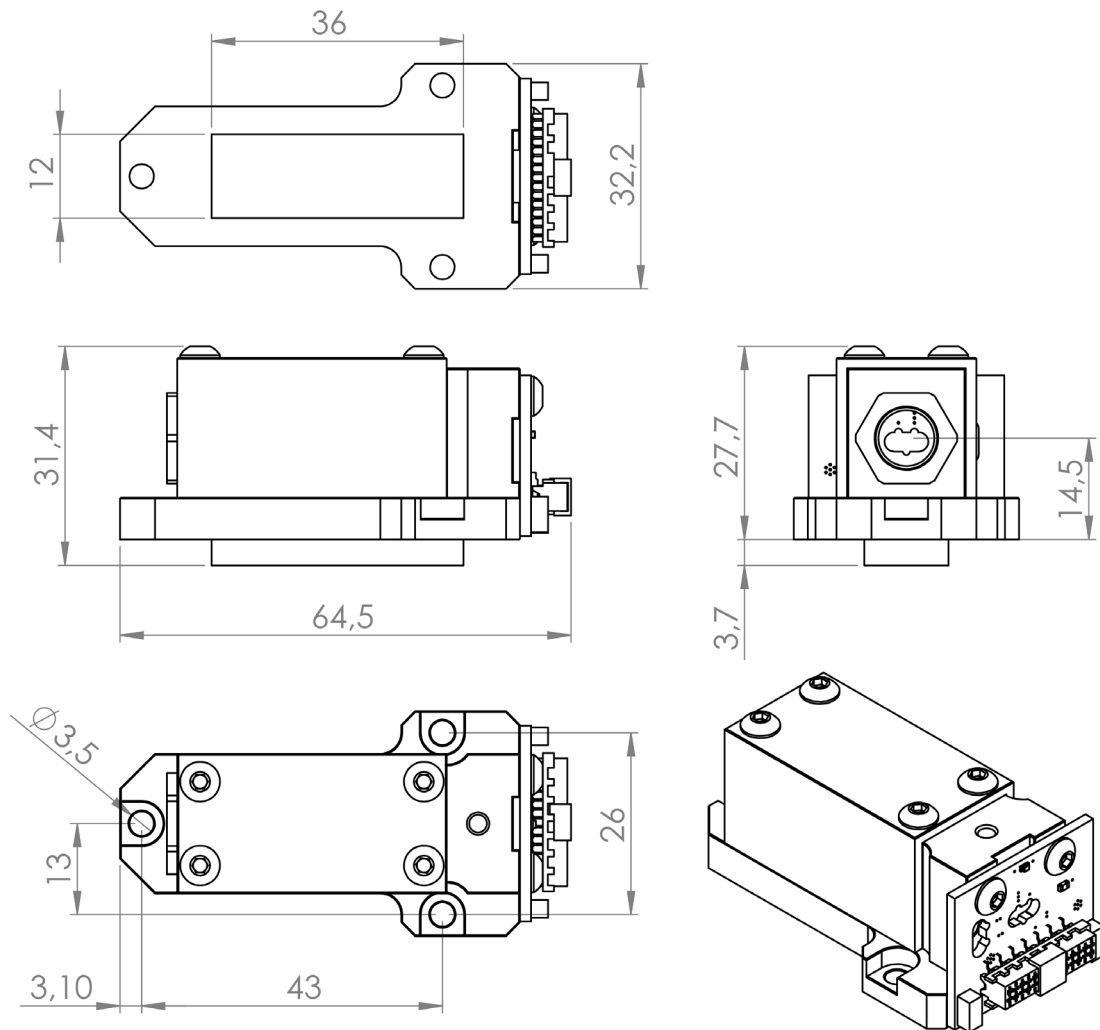
Item	Condition	Symbol	Min.	Typ.	Max.	Unit
Optical Output Power	$P_o=1000mW$	P_o	-	1000	1100	mW
Optical Output Power	Pulsed * ¹	P_o	-	-	-	mW
Dominant Wavelength	$P_o=1000mW$	λ_d	400	405	410	nm
Threshold Current	CW	I_{th}	250	320	400	mA
Operating Current	CW	I_{op}	-	1000	1300	mA
Operating Current	Pulsed * ¹	I_p	-	-	-	A
Operating Voltage	$P_o=1000mW$	U_{op}	-	-	5.0	V
Slope Efficiency	CW	η	-	1.4	-	W/A
Raw Diode Beam Divergence (1/e ²)	$P_o=1000mW$	$\theta_{ }$	5	13	25	deg
	$P_o=1000mW$	θ_{\perp}	30	42	50	deg
Beam Size	Without Correction	-	-	0.75 x 3.4	-	mm
Beam Size	With Correction	-	-	3.5 x 3.4	-	mm
Beam Divergence (full angle)	Without Correction	-	-	6.0	-	mrad
Beam Divergence (full angle)	With Correction	-	-	0.87	-	mrad
Heatsink Temperature Range * ²	With TEC ($T_c=25^{\circ}C$)	T	-20	-	85	$^{\circ}C$
Power Consumption * ²	Without TEC	P_{el}	-	5	-	W
Power Consumption * ²	With TEC	P_{el}	-	46	-	W

*¹ Pulse Condition: Pulse frequency $\geq 50Hz$, Duty $\leq 33\%$

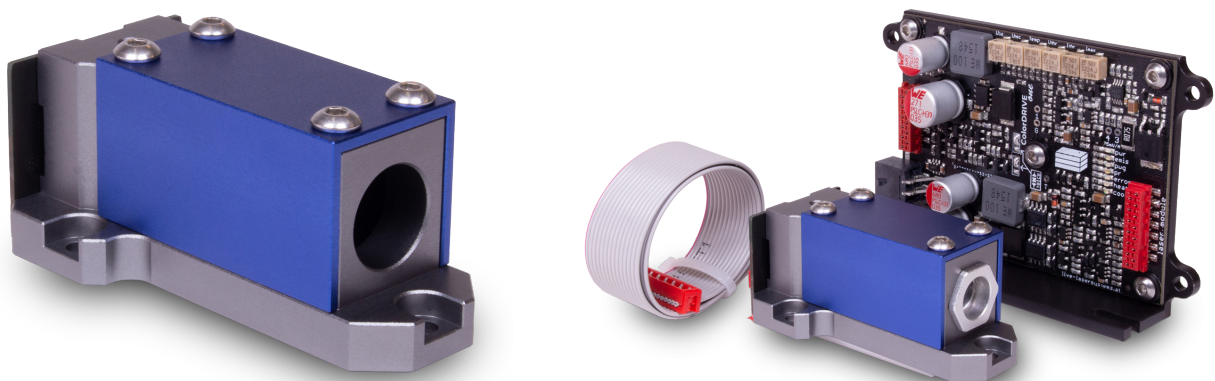
*² with ColorDRIVE one, $V_{in} = +10$ to $24V_{DC}$



Technical Drawings



Images



Contact

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