Advanced Photonic Sciences

55mW 495nm Diode Laser

LDM-495-55-C
LDMC-495-55

Absolute maximum ratings (Tc=25°C)

Parameter		Symbol	Value	Unit
Optical output power	CW	P_{CW}	55	mW
	Pulsed	P_P	55	mW
Reverse voltage		V_R	2	V
Operating temperature	CW	T_{CW}	+ ~ +50	°C
	Pulsed	T_P	+ ~ +50	°C
Storage temperature		T_{STR}	+ ~ +85	°C
Soldering temperature		T_{SLD}	260	°C

Optical and Electrical Characteristics (Tc=25°C)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Threshold current	Ith	-	-	40	60	mA
Operating current	Iop	Pcw=55mW	-	105	135	mA
Operating voltage	Vop		-	6.1	-	V
Wavelength	λPeak		485	495	497	nm
1/e2 Intensity angle (Note 3,5)	θ//(1/e2)		-	8	-	°
1/e2 Intensity angle (Note 3,5)	θ⊥(1/e2)		-	23	-	°
Misalignment angle (Note 4,5)	Δθ//(1/e2)		-3	-	3	°
Misalignment angle (Note 4,5)	Δθ⊥(1/e2)		-4	-	4	°
Slope efficiency	η	-	-	0.8	-	mW/mA
Polarization angle (Note 6)	-	Po = 55mW	-5	-	5	°
Polarization ratio (Note 6)	P_I	NA = 0.13	-	100:1	-	-
Beam Size	4σ	-	-	4 x 4 4 x 1	-	mm
Beam Divergence at full angle	-	-	0.3	0.5	0.7	mrad
Thermal resistance (junction to case)	Rth	-	-	38	-	K/W

Note 1) Initial value, CW operation.
Note 2) Tc= case temperature
Note 3) Full angle of 13.5% of peak intensity.
Note 4) Misalignment angle of 13.5% of peak intensity.
Note 5) Parallel to junction plane (Y-Z plane)
Note 6) Reference standard: JIS-C-5943

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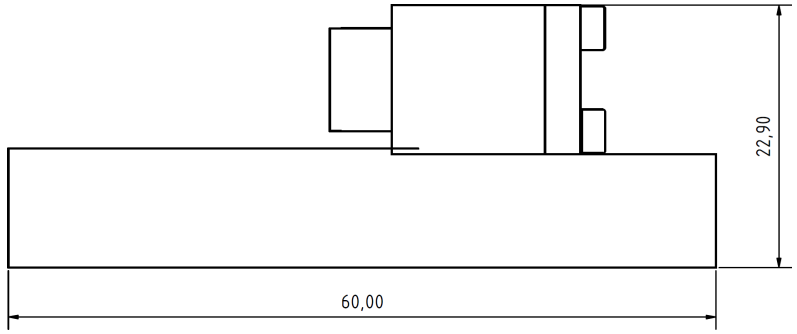
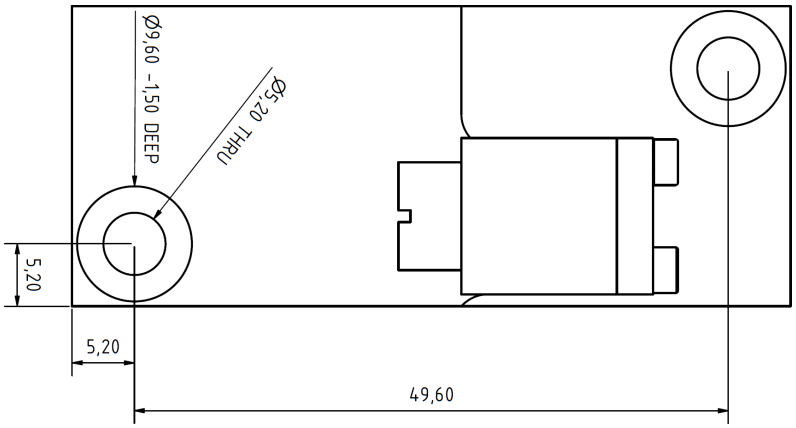
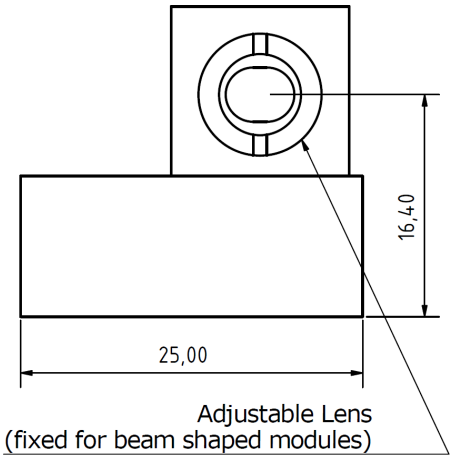
Dimensions

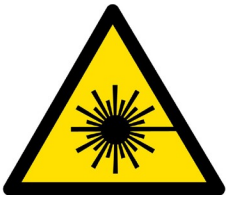


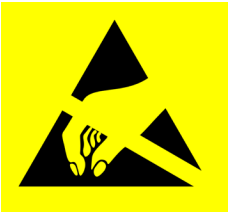




Class 3B Laser Radiation

Avoid eye and skin exposure to direct or scattered radiation.
Class 3B DIN EN 60825-1:2015-07
Output power (Po): 250mW max.
Wavelength (λ): 450-520nm





Connecting wires:

Red: PLUS
Black: MINUS

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