

## 55mW 488nm Diode Laser

Absolute maximum ratings (Tc=25°C)

LDM-488-55-C  
LDMC-488-55

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	$T_{CW}$	-10 ~ +60	°C
	Pulsed	$T_P$	-10 ~ +60	°C
Storage temperature		$T_{STR}$	-40 ~ +85	°C
Soldering temperature		$T_{SLD}$	350	°C

### Optical and Electrical Characteristics (Tc=25°C)

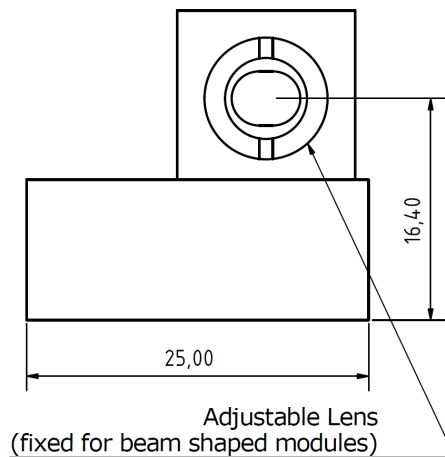
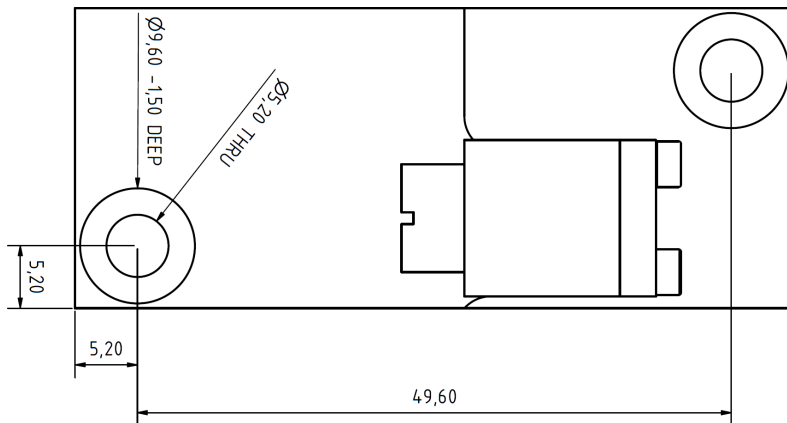
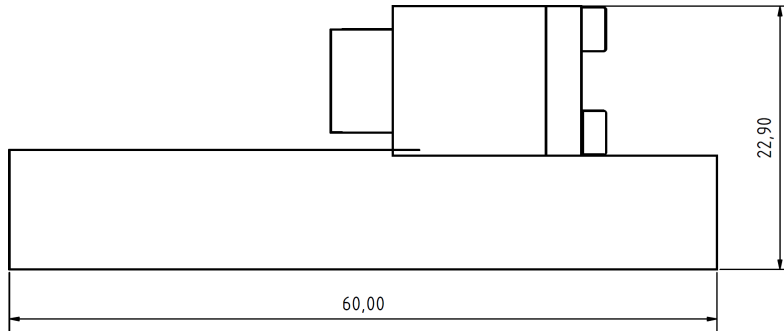
Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Threshold current	$I_{th}$	-	-	40	60	mA
Operating current	$I_{op}$	P <sub>cw</sub> =55mW	-	105	135	mA
Operating voltage	$V_{op}$		-	6.1	7.5	V
Wavelength	$\lambda_{pe}$ ak		480	487	495	nm
1/e <sup>2</sup> Intensity angle (Note 3,5)	$\theta_{//}(1/e^2)$		-	8	-	°
1/e <sup>2</sup> Intensity angle (Note 3,5)	$\theta_{\perp}(1/e^2)$		-	2	-	°
Misalignment angle (Note 4,5)	$\Delta\theta_{//}(1/e^2)$		-3	-	3	°
Misalignment angle (Note 4,5)	$\Delta\theta_{\perp}(1/e^2)$		-3	-	3	°
Differential efficiency	$\eta_d$		-	0.5	0.8	-
Polarization angle (Note 6)	-	P <sub>o</sub> = 55mW	-5	-	5	°
Polarization ratio (Note 6)	$P_l$	NA = 0.13	-	100:1	-	-
Beam Size	$4\sigma$	-	-	4 x 4 4 x 1	-	mm
Beam Divergence at full angle	-	-	0.2	0.5	0.7	mrاد
Thermal resistance (junction to case)	$R_{th}$	-	-	38	-	K/W

- Note 1) Initial value, CW operation.  
 Note 2) T<sub>c</sub>= 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

LDM-488-55-C  
LDMC-488-55

# 55mW 488nm Diode Laser

## Dimensions



## Connecting wires:

Red: PLUS  
Black: MIN

# Safety Notes

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This is a Class 3B OEM laser product. OEM product is intended to be incorporated into a device. It may not meet safety requirements given by the law.

Safety precautions are to be taken prior to use this laser.

Avoid eye or skin exposure. Laser radiation must be prevented from leaving the laser working area. Use appropriate shield to block the laser light.

Relevant but not only applicable regulations:

DIN EN 12254:2010-07

DIN EN 60825-1:2015-07

DIN EN 60825-4



**Laser Radiation**

Avoid eye and skin exposure by direct or scattered laser light.

Laser Class 3B  
DIN EN 60825-1:2015-07

Output power ( $P_o$ ): 300mW max.  
Wavelength ( $\lambda$ ): 400-500nm

