



## Laser Diode ZBD-LD-440-7000M-F111-O

ZBD-LD-440-7000M-F111-O is a multimode laser diode with 5.5 W CW output power at 440nm. Its beam pattern is linear with  $11^\circ \times 1^\circ$  ( $\theta_{//} \cdot \theta_{\perp}$ ). It is supplied in a 9mm floating mounted TO . The laser diode is suitable for opto-electronic applications.

### ■ Absolute Maximum Ratings

Parameter	Symbol	Absolute Maximum Rating	Unit
Optical Output Power( $T_c=25^\circ\text{C}$ )	$P_o$	7.0	W
Forward Current( $T_c=25^\circ\text{C}$ )	$I_{op}$	4.0	A
Revers Current( $T_c=25^\circ\text{C}$ )	$I_r(\text{LD})$	20	mA
Storage Temperature	$T_{stg}$	-40~85	$^\circ\text{C}$
Operating Case Temperature	$T_c$	20~60	$^\circ\text{C}$

### ■ Initial Electrical/Optical Characteristics ( $T_c=25^\circ\text{C}$ )

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit	
Threshold Current	$I_{th}$	CW	300	-	450	mA	
Operating Voltage	$V_{op}$	CW	-	4.1	4.8	V	
Operating Current	$I_{op}$	CW	-	3.7	4.0	A	
Dominant Wavelength	$\lambda_d$	$P_o=7\text{W}$	434	(440)	446	nm	
Beam Divergence*	Parallel	$\theta_{//}$	$P_o=7\text{W}$	6	(11)	13	$^\circ$
	Perpendicular	$\theta_{\perp}$	$P_o=7\text{W}$	0.8	(1)	1.2	$^\circ$

( )are reference figures.

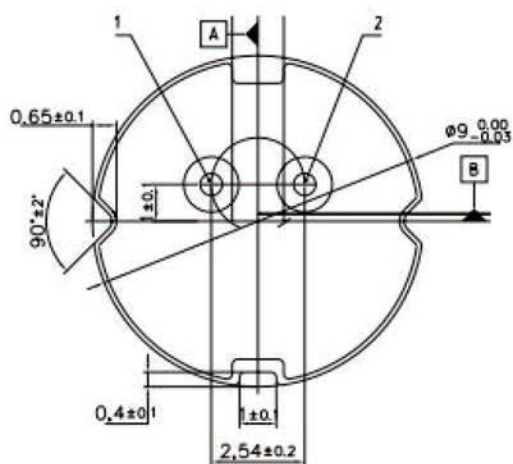
\*Full angle at  $1/e^2$  from peak intensity



### ■ Beam Pattern



### ■ Outline Dimension (Unit: mm)



1: Cathode  
2: Anode

