



## Laser Diode ZBD-LD-639-2700M-F91-M02

ZBD-LD-639-2700M-F91-M02 is a multimode laser diode with 2.7W CW output power at 639nm. Its beam pattern is linear with  $9^\circ \times 1^\circ$  ( $\theta_{//} \cdot \theta_{\perp}$ ). This product utilises a 9-millimetre floating-mount TO package. The laser diode is suitable for opto-electronic applications.

### ■ Absolute Maximum Ratings

Item	Symbol	Absolute Maximum Rating	Unit
Forward Current( $T_c=25^\circ\text{C}$ )	$I_f$	3.8	A
Revers Current( $T_c=25^\circ\text{C}$ )	$I_r(\text{LD})$	85	mA
Storage Temperature	$T_{\text{stg}}$	-40~85	$^\circ\text{C}$
Operating Case Temperature	$T_c$	0~55	$^\circ\text{C}$

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

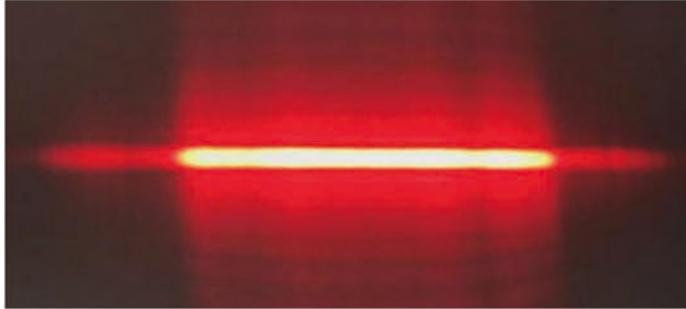
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit	
Optical Output Power	$P_o$	$I_f = 3.2\text{A}$	2.3	(2.7)	3.1	W	
Dominant Wavelength	$\lambda_d$	$I_f = 3.2\text{A}$	635	(639)	643	nm	
Threshold Current	$I_{\text{th}}$	CW	400	-	650	mA	
Operating Voltage	$V_{\text{op}}$	$I_f = 3.2\text{A}$	1.8	-	2.8	V	
Slope Efficiency	$\eta$	CW	-	(4.0)	-	W/A	
Beam Divergence*	Parallel	$\Theta_{//}$	$I_f = 3.2\text{A}$	7	(9)	11	$^\circ$
	Perpendicular	$\theta_{\perp}$	$I_f = 3.2\text{A}$	0.8	(1)	1.2	$^\circ$

( )are reference figures.

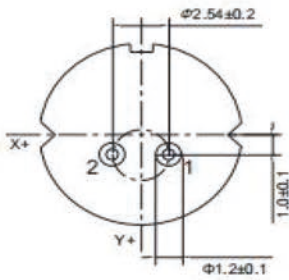
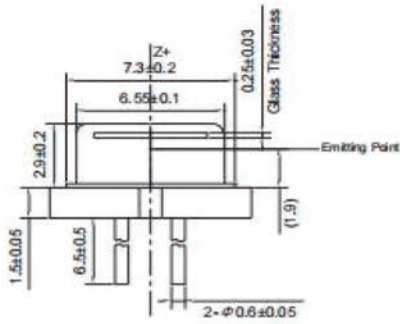
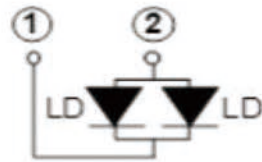
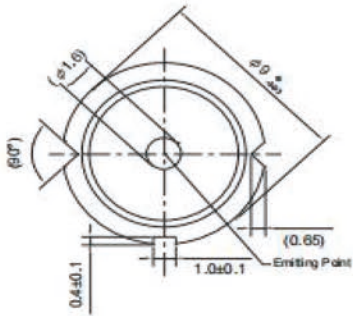
\*Full angle at  $1/e^2$  from peak intensity



## ■ Beam Pattern



## ■ Outline Dimension



Unit: mm