



## Laser Diode ZBD-LD-638-3000M-F121

ZBD-LD-638-3000M-F121 is a multimode laser diode with 3.0W CW output power at 638nm. Its beam pattern is linear with  $12^\circ \times 1^\circ$  ( $\theta_{//} \cdot \theta_{\perp}$ ). It is supplied in a 9mm floating mounted TO can with Zener Diode. The laser diode is suitable for the use in various opto-electronic applications.

### ■ Absolute Maximum Ratings

Parameter	Symbol	Value	Unit
Forward Current (Tc=25°C)	I <sub>f</sub>	3	A
Pulse operating current	I <sub>f</sub> (Pulse)	3.8	A
Reverse Current (Tc=25°C)	V <sub>r</sub> (LD)	2	V
Storage Temperature	T <sub>stg</sub>	-40~+85	°C
Operating Case Temperature	T <sub>c</sub>	-10~+55	°C

### ■ Initial Electrical/Optical Characteristics (Tc=25°C)

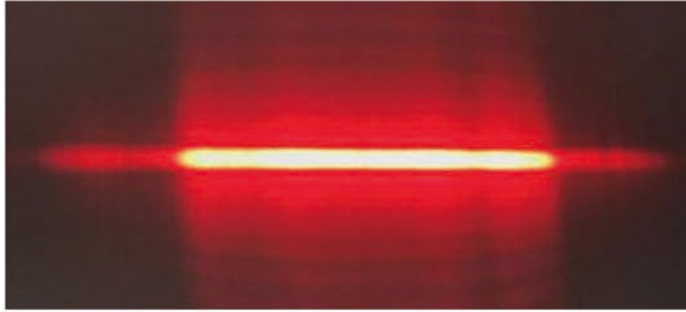
Parameter	Symbol	Condition	Min	Typ.	Max	Unit	
Optical output power	P <sub>o</sub>	I <sub>op</sub> =3A	-	3.0	-	W	
Optical output power	P <sub>o</sub> (Pulse)	I <sub>op</sub> (Pulse)=3.8A, f=240Hz,duty=40%	-	4.2	-	W	
Dominant Wavelength	λ <sub>d</sub>	I <sub>op</sub> =3A	632	(638)	644	nm	
Threshold Current	I <sub>th</sub>	CW	-	570	850	mA	
Operating Voltage	V <sub>op</sub>	I <sub>op</sub> =3A	-	2.5	3.0	V	
Beam Divergence*	Parallel	θ <sub>//</sub>	P <sub>o</sub> = 3W	3	(12)	20	°
	Perpendicular	θ <sub>⊥</sub>	P <sub>o</sub> = 3W	0.8	(1)	1.2	°

( ) are reference figures.

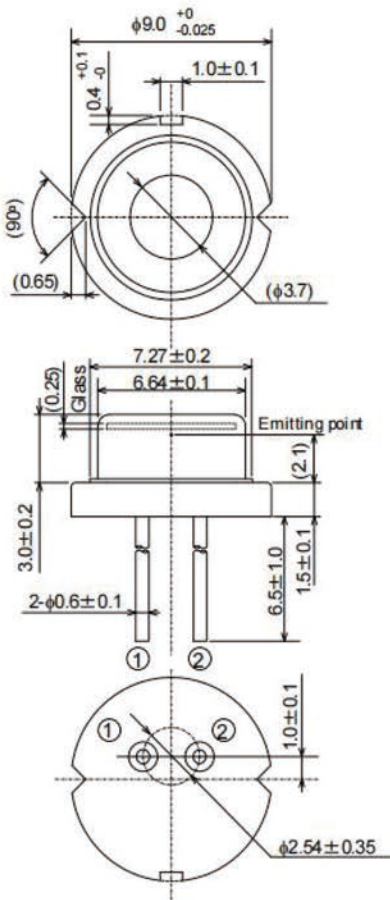
\* Full angle at 1/e<sup>2</sup> from peak intensity



■ Beam Pattern



■ Outline Dimension



(Unit: mm)

HL63680HD

