



Laser Diode ZBD-LD-638-3000M-FS

ZBD-LD-638-3000M-FS is a multimode laser diode with 3.0W CW output power at 638nm. Its beam pattern is square with $12^\circ \times 12^\circ$ ($\theta_{//} \cdot \theta_{\perp}$). 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 _f	3	A
Pulse operating current	I _f (Pulse)	3.8	A
Reverse Current (Tc=25°C)	V _r (LD)	2	V
Storage Temperature	T _{stg}	-40~+85	°C
Operating Case Temperature	T _c	-10~+55	°C

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

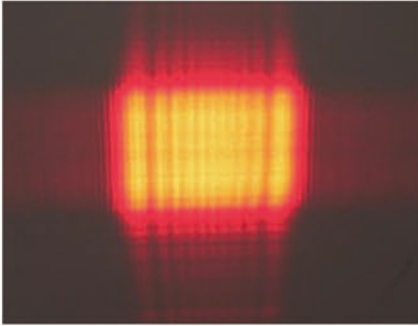
Parameter	Symbol	Condition	Min	Typ.	Max	Unit	
Optical output power	P _o	I _{op} =3A	-	3.0	-	W	
Optical output power	P _o (Pulse)	I _{op} (Pulse)=3.8A, f=240Hz,duty=40%	-	4.2	-	W	
Dominant Wavelength	λ _d	I _{op} =3A	632	(638)	644	nm	
Threshold Current	I _{th}	CW	-	570	850	mA	
Operating Voltage	V _{op}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

() are reference figures.

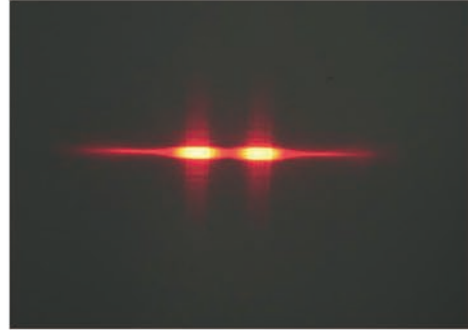
* Full angle at 1/e² from peak intensity



■ Beam Pattern

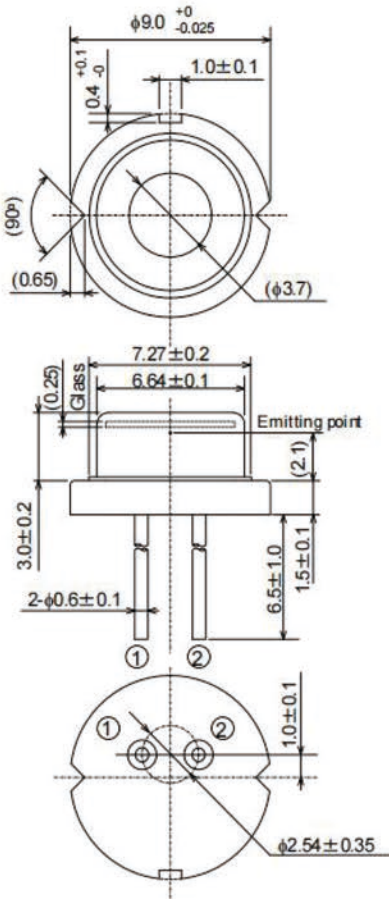


Before Collimating



After Collimating

■ Outline Dimension



(Unit: mm)

HL63680HD

