



Laser Diode LT-LD-445-4000M-FS

LT-LD-445-4000M-FS is a multimode laser diode with 4.0W CW output power at 445nm. Its beam pattern is square with $14^{\circ} \times 14^{\circ}$ ($\theta_{//} \cdot \theta_{\perp}$). 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 ($T_c=25^{\circ}\text{C}$)	I_f	3.5	A
Reverse Current ($T_c=25^{\circ}\text{C}$)	I_r (LD)	85	mA
Storage Temperature	T_{stg}	$-40 \sim 85$	$^{\circ}\text{C}$
Operating Case Temperature	T_c	$0 \sim 65$	$^{\circ}\text{C}$

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

Parameter		Symbol	Condition	Min	Typ.	Max	Unit
Optical Output Power		P _o	I _f = 2.5A	-	(4.0)	-	W
Dominant Wavelength		λ _d	I _f = 2.5A	438	(445)	452	nm
Threshold Current		I _{th}	CW	200	-	400	mA
Slope Efficiency		η	CW	-	(1.8)	-	W/A
Operating Voltage		V _{op}	I _f = 2.5A	3.7	-	4.9	V
Beam Divergence*	Parallel	θ _{//}	I _f = 2.5A	5	(14)	25	°
	Perpendicular	θ _⊥	I _f = 2.5A	5	(14)	25	°

() are reference figures.

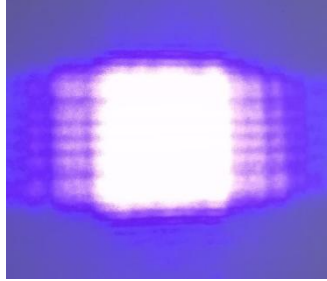
* Full angle at $1/e^2$ from peak intensity

Data sheet Re1.0 Mar.2026

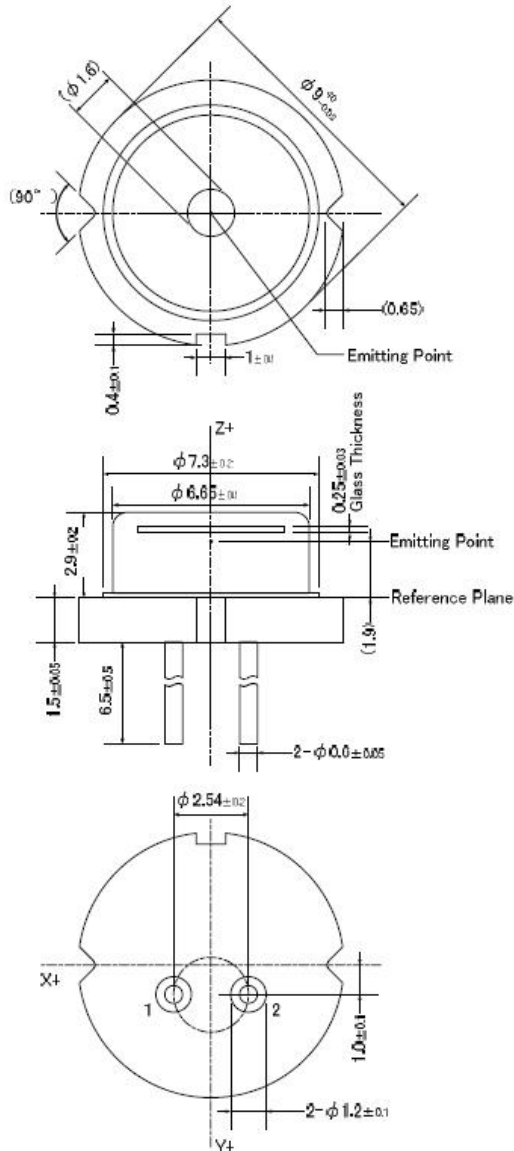
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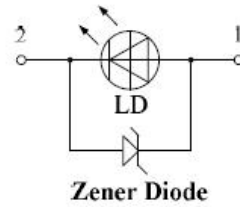
■ Beam Pattern



■ Outline Dimension



Connection



1. LD Anode
2. LD Cathode

Figures in () are reference purpose only.

Parts	Materials
Stem	Cu + Fe + Ni plating + Au plating
Lead	Ni-Fe-Co alloys + Ni plating + Au plating
Cap	Ni-Fe alloys + Ni plating
Glass	Borosilicate glass
Chip	Gallium nitride
Sub mount	Silicon carbide
Zener Diode	Silicon