

658nm/35mW CircularBeam Laser Diode

CircuLaser™ Laser Diode

Circular beam with diffraction-limited performance and low divergence in a standard package

- 35mW Optical Power
- Built-in Monitor Photodiode
- Circular, diverging beam with μ Lens™ technology
- Numerical Aperture (NA) ~ 0.11
- Aberration $\sim \lambda/4$ peak to valley
- AlGaInP index-guided, MQW Laser Diode
- Hermetically sealed package
- Standard 5.6mm package



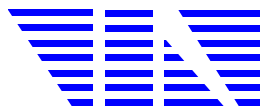
Absolute Maximum Ratings (case temperature = 25°C)

Parameter	Symbol	Minimum	Maximum	Unit
Optical Output Power	P_0	-	35	mW
LD Reverse Voltage	V_R (LD)	-	2	V
PD Reverse Voltage	V_R (PD)	-	30	V
Operating Temperature	T_{opr}	-10	+50	°C
Storage Temperature	T_{std}	-40	+85	°C

Optical and Electrical Characteristics (case temperature = 25°C)

Parameter	Symbol	Minimum	Typical	Maximum	Unit	Test Conditions
Threshold Current	I_{th}	30	45	70	mA	
Operating Current	I_{op}	-	80	120	mA	$P_0 = 30\text{mW}$
Operating Voltage	V_{op}	2.1	2.6	3.0	V	$P_0 = 30\text{mW}$
Optical Output Power	T_{opr}	-	30	35	mW	Kink free
Slope Efficiency	η	0.5	0.75	1.0	mW/mA	$P_0 = 30\text{mW}$
Wavelength	λ	645	658	665	nm	$P_0 = 30\text{mW}$
Circularity	ϕ		-	1.2:1.0	Ratio	$P_0 = 30\text{mW}$
Beam Divergence	θ	7	8.5	10.5	Deg	$P_0 = 30\text{mW}$, FWHM
Off axis Angle	$\Delta\theta$	-	-	± 3	Deg	
Monitor Current	I_s	0.05	0.30	1.5	mA	$P_0 = 30\text{mW}$ V_R (PD) = 5V
Astigmatism	A_s	-	-	0.25	Waves	

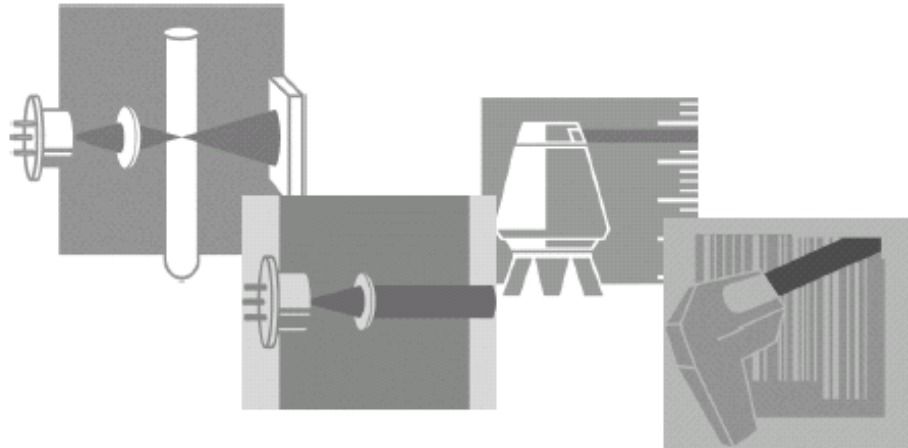
Specifications are subject to change without notice.
Each CircuLaser is provided with test data.



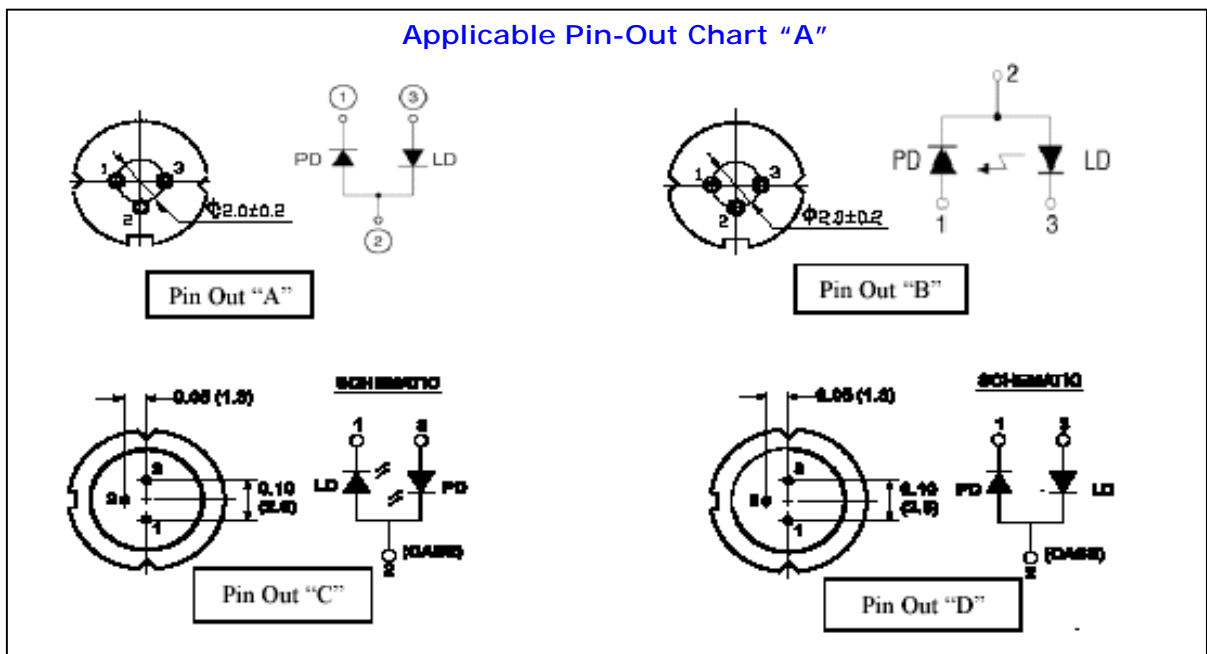
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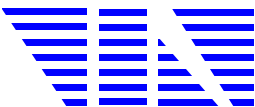
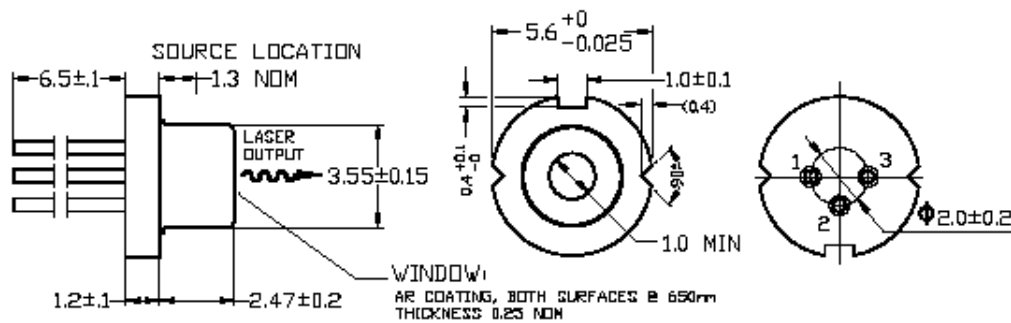
Circularity, Beam quality, and Beam divergence..... All in one



Applicable Pin-Out Chart "A"



Mechanical Package and Layout
(TO-5.6 package shown)



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