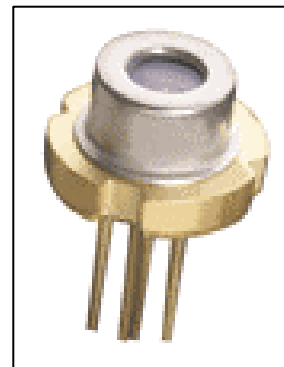


635nm/15mW Circular Beam Laser Diode

CircuLaser™ Laser Diode

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

- 15mW Optical Power
- Built-in Monitor Photodiode
- Circular, diverging beam with μ Lens™ technology
- Numerical Aperture (NA) ~0.11
- Aberration ~1/4 peak to valley
- AlGaInP index-guided, MQW Laser Diode
- Hermetically sealed package
- Standard 9mm, and 5.6mm package



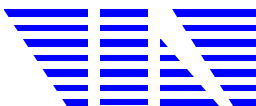
Absolute Maximum Ratings (case temperature = 25°C)

Parameter	Symbol	Minimum	Maximum	Unit
Optical Output Power	P_0	-	15	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_{stq}	-40	+85	°C

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

Parameter	Symbol	Minimum	Typical	Maximum	Unit	Test Conditions
Threshold Current	I_{th}	20	55	75	mA	
Operating Current	I_{op}	-	85	105	mA	$P_0 = 15mW$
Operating Voltage	V_{op}	-	-	2.7	V	$P_0 = 15mW$
Optical Output Power	T_{opr}	-	-	15	mW	Kink free
Slope Efficiency	η	0.3	-	0.7	mW/mA	$P_0 = 15mW$
Wavelength	λ	625	635	642	nm	$P_0 = 15mW$
Circularity	ϕ		-	1.2:1.0	Ratio	$P_0 = 15mW$
Beam Divergence	θ	5	8	11	Deg	$P_0 = 15mW$, FWHM
Off axis Angle	$\Delta\theta$	-	-	± 3	Deg	
Monitor Current	I_s	0.07	0.20	0.45	mA	$P_0 = 15mW$ V_R (PD)=5V
Astigmatism	A_s	-	-	0.25	Waves	

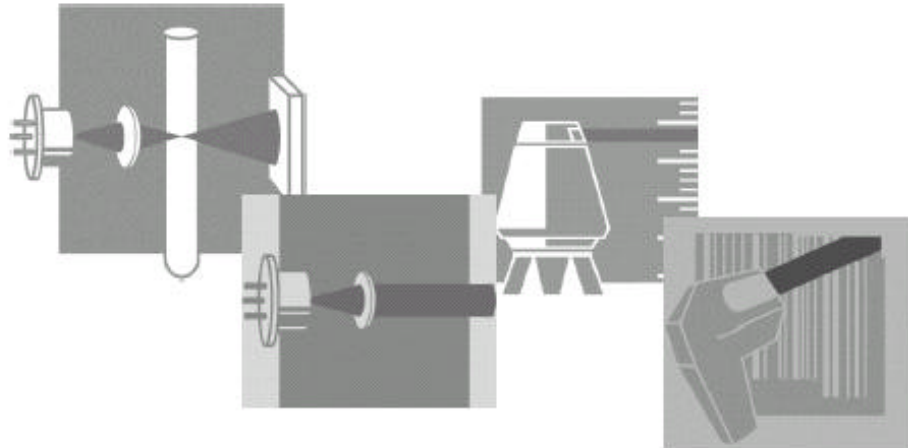
Specifications are subject to change without notice.
Each CircuLaser is provided with test data.



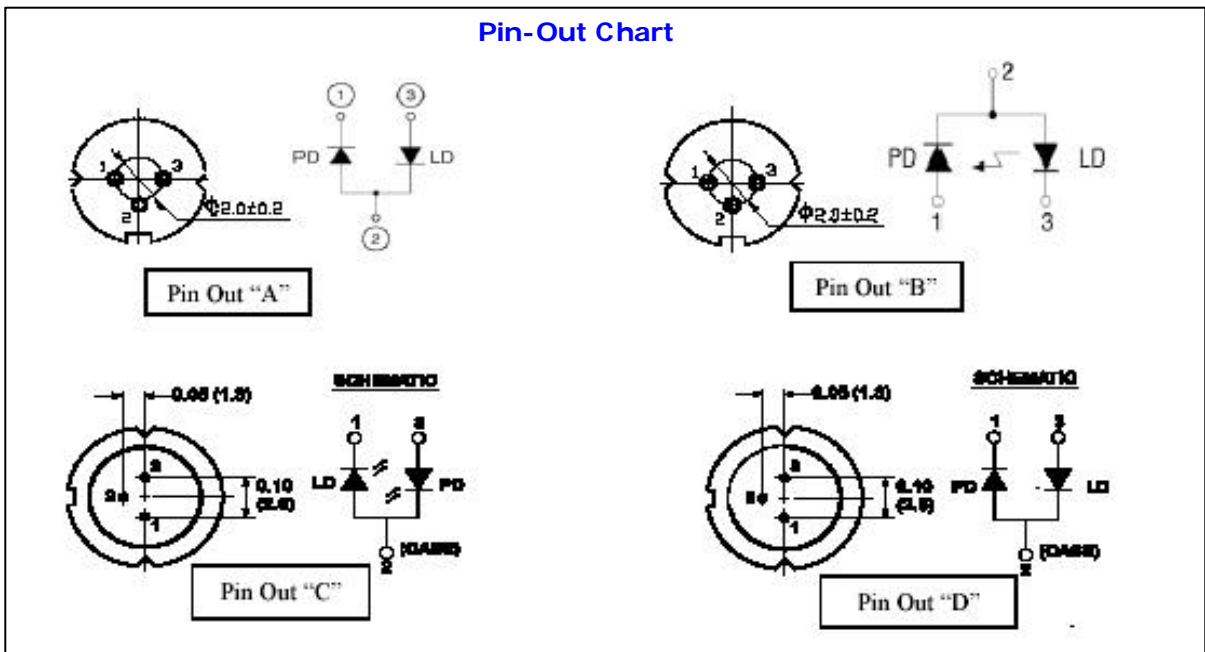
VIN KAROLA INSTRUMENTS

P.O. Box 922273
Norcross, GA 30010-2273
Tel: 770/409-1499
Fax: 770/447-8045
e-mail: info@vinkarola.com

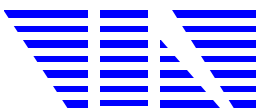
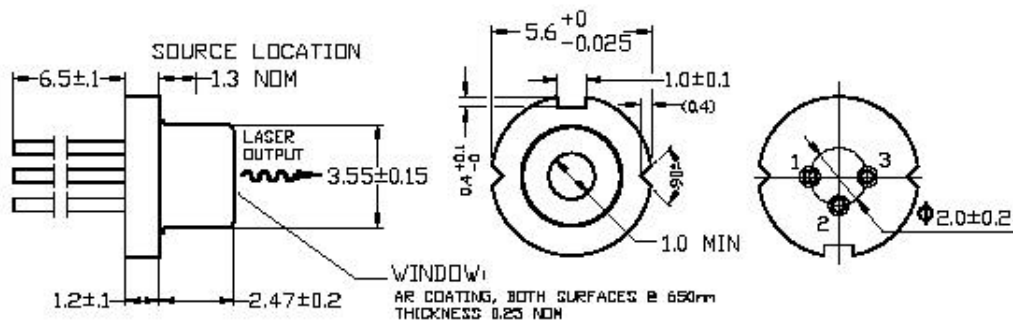
Circularity, Beam quality, and Beam divergence..... All in one



Pin-Out Chart



Mechanical Package and Layout
(TO-5.6 package shown)



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