

# NVG, INC.

## VISIBLE LASER DIODES

### Technical Data



#### MODEL # D660-5

#### VISIBLE DIODE LASER ABSOLUTE MAXIMUM RATINGS - (T<sub>c</sub>=25 °C)

TECHNICAL DATA		
<ul style="list-style-type: none"> <li>• Index Guided MQW Structure</li> <li>• Wavelength: 660nm (Typ.)</li> <li>• Optical Power: 5mW CW</li> <li>• Threshold Current: 20mA (Typ.)</li> <li>• Standard Package: 5.6mm</li> </ul>		
Visible light output	650nm	<b>Pin Out Diagram</b>
Optical power output	5mW CW	
Package Type	5.6mm	
Built-in photo diode for monitoring laser output		

Items	Symbols	Values	Unit
Optical output power	P <sub>o</sub>	7	mW
Laser diode reverse voltage	VLDR	2	V
Photo diode reverse voltage	VPDR	30	V
Operating temperature	T <sub>opr</sub>	-10 ~ +60	°C
Storage temperature	T <sub>stg</sub>	-40 ~ +85	°C

#### OPTICAL and ELECTRICAL CHARACTERISTICS - (T<sub>c</sub>=25 °C)

Items	Symbols	Min.	Typ.	Max.	Unit	Test Condition
Optical output power	P <sub>o</sub>	-	5	-	MW	-
Threshold current	I <sub>th</sub>	-	20	40	mA	-
Operating current	I <sub>op</sub>	-	40	60	mA	P <sub>o</sub> =5mW
Operating voltage	V <sub>op</sub>	-	2.7	-	V	P <sub>o</sub> =5mW
Lasing wavelength	λ	655	660	665	nm	P <sub>o</sub> =5mW
Beam divergence	θ <sub>Φ</sub>	-	5	11	deg	P <sub>o</sub> =5mW
Beam divergence	θ <sub>ζ</sub>	-	25	37	deg	P <sub>o</sub> =5mW
Slope Efficiency (mW/mA)	η	0.3	0.7	0.9	-	-
Monitor current	I <sub>m</sub>	-	10	20	μA	P <sub>o</sub> =5mW, V <sub>R</sub> =5V
Astigmatism	As	-	11	-	μm	P <sub>o</sub> =5mW
MTTF			10,000 hrs.			P <sub>o</sub> =5mW, NA=0.4

Emitter Distance to Cap Lens	0.3mm
Emitter Size	1 x 4 Microns
Structure	Index Guided

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