

NVG, INC.

VISIBLE LASER DIODES

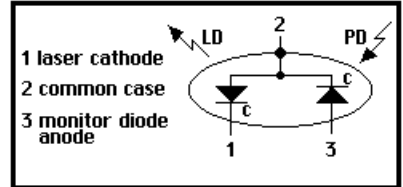
Technical Data



MODEL # SD670-5

VISIBLE DIODE LASER ABSOLUTE MAXIMUM RATINGS - (Tc=25 °C)

TECHNICAL DATA		Pin Out Diagram
• Index Guided MQW Structure		
• Wavelength: 670nm (Typ.)		
• Optical Power: 5mW CW		
• Threshold Current: 25mA (Typ.)		
• Standard Package: 5.6mm		
Visible light output	670nm	
Optical power output	5mW CW	
Package Type	5.6mm	
Built-in photo diode for monitoring laser output		



Items	Symbols	Values	Unit
Optical output power	Po	7	mW
Laser diode reverse voltage	VLDR	2	V
Photo diode reverse voltage	VPDR	30	V
Operating temperature	Topr	-10 ~ +50	°C
Storage temperature	Tstg	-40 ~ +85	°C

OPTICAL and ELECTRICAL CHARACTERISTICS - (Tc=25 °C)

Items	Symbols	Min.	Typ.	Max.	Unit	Test Condition
Optical output power	Po	-	5	-	mW	-
Threshold current	Ith	-	25	30	mA	-
Operating current	Iop	-	35	45	mA	Po=5mW
Operating voltage	Vop	-	2.2	2.6	V	Po=5mW
Lasing wavelength	λ	660	670	680	nm	Po=5mW
Beam divergence	$\theta\Phi$	7	8	10	deg	Po=5mW
Beam divergence	$\theta\zeta$	22	33	38	deg	Po=5mW
Slope Efficiency (mW/mA)	η	0.3	0.7	0.9	-	-
Monitor current	Im	100	200	500	μ A	Po=5mW, VR=5V
Astigmatism	As	-	11	-	μ m	Po=5mW
MTTF			10,000 hrs.			Po=5mW, NA=0.4

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

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