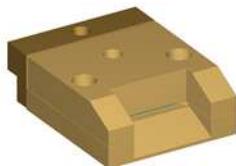


	FORMBLATT Lastenheft „LK-Laser 275W“ FB 5.2-2/1	Laser	✓
		Diode Lab	

5 Target Spezifikationen



preliminary



Diode Laser JOLD-275-CPNN-1L

Topic	Unit	Min	Typ	Max	Comment
Operating Conditions					
Ambient Conditions			Cleanroom class ISO 5, non-condensing atmosphere		
Operating mode			cw & Modulation 0-lmax		
Baseplate Temperature	°C		25		
Specification					
Optical Output Power	W	275			
Drive Current for Rated Power	A		320	350	
Threshold Current	A		30	50	
Forward Voltage at Typical drive Current	V			1,75	
Beam Divergence /fast-axis)	deg		47	51	
Beam Divergence /slow-axis)	deg		7	10	
Slope Efficiency	W/A	0,9	1		
Power Conversion Efficiency	%	55	60		
Polarization Extinction Ratio TE/TM	%		TBD		
Center Wavelength at 25 °C	nm	933	938	943	
Spectral Bandwidth (FWHM)	nm		3	5	
Absolute Maximum Ratings					
Storage Temperature	°C	-25		75	
Laser Bar Forward Current	A			355	Limited to Rated Current plus 5A
Laser Bar Reverse Voltage	V			0	
Lifetime					
Expected Lifetime ^{1),3)}	kh		20		
Expected Lifetime ^{2),3)}	kh		10		

- cw or softpulse operation (modulation between Ith and Ipn)
- hard pulse operation (modulation between zero and Ipn)
- End-of-life criteria: 20% reduction in Start-of-life power at rated drive current