

Somerville Laser Technology

Preliminary data sheet

High-power, fiber-coupled laser-diode

Model: WL-550-225-976

	Symbol	Units	Min.	Typical	Max.
Optical data					
CW-optical power	Pop	W	550		
Center wavelength	λ_c	nm	973	976	979
Spectral width	$\Delta\lambda$	nm		4	
Temperature dependence of center wavelength	$\Delta\lambda_c/\Delta T$	nm/°C		0.3	
Fiber data					
Fiber core/clad diameter		μm		225/270	
Fiber numerical aperture	NA			0.22	
Fiber connector				Optoskand SMAQ with mode stripper	
Electrical data					
Operating current	Iop	A		145	
Threshold current	Ith	A		10	
Operating voltage	Vop	V		7.8	
Slope efficiency	η	W/A		4.1	
Power conversion efficiency	PCE	%	50		
Reverse voltage		V			0
Thermal conditions					
Inlet water temperature		°C		20	
Differential water pressure		psi		60	
Inlet water flow rate		l/min		5	
Chiller cooling capacity		W	500		
Storage temperature		°C	-51		+60
(NON CONDENSING CONDITIONS)					
Water quality (1)				Distilled water	
Other specifications					
Expected lifetime		hrs		>10k	
P(EOL) = 80%P(BOL)					
Water connections				female quick connect male Radlock quick connect	
Electrical connections					

Notes

RoHS 2002/95/EC compliant

SLT_121515-v4.0

1) Coolant: distilled-water filtered
to 5 microns