

638nm 1W Single-emitter Laser Diode

Part number STR-638A-110-1-1.5-SE

	Symbol	Min.	Typ.	Max.	Unit
Operation					
Central wavelength	λ		638		nm
Output power	P_o		1		W
Operation mode			CW		
Geometrical					
Emitter width	W		110		um
Cavity length	L		1500		um
Chip width	W		400		um
Chip height	H		150		um
Electro-optical data					
Threshold current	I_{th}		0.5		A
Operating current	I_{op}		1.4		A
Operating voltage	V_{op}		2.1		V
Slope efficiency	ηd		1.1		W/A
Total conversion efficiency	η		34		%
Slow axis divergence	θ		8		degree
Fast axis divergence	θ		35		degree
Spectral width	$\Delta \lambda$		1		nm
Polarisation			TM		
Temp. drift coefficient of wavelength			0.18		Nm/°C

The above specifications are based on COS (Chip On Submount), 25 degree. The divergences cover 95% energy and spectral is FWHM (Full width half maximum).



