Sintec Optronics

STD-UMB-50-47-940-TE-120-2.0

High-power Diode Laser Bars, 940nm, 120W CW

Features:

- High electrical-optical conversion efficiency
- High stability
- High reliability
- Long lifetime

Technical Advantages:

- High efficient epitaxial structure design
- High-quality epitaxial material growth
- Special passivation method for cavity surface

Specifications

	Symbol	Min.	Typical	Max.	Unit
Operation					
Optical output power	Po		120		W
Wavelength	λo	937	940	943	nm
Operation mode			CW		
Dimensions					
Number of emitters			47		
Emission region width	E.W.	95	100	105	um
Emitter pitch	P		200		
Filling factor	F		50		
Bar width	B	9800	10000	10200	
Cavity length	L	1990	2000	2010	um
Thickness	D	115	120	125	um
Electro-optical parameters					
Electro-optical efficiency	η	58	60		%
Slope efficiency	SE	1.05	1.15		W/A
Threshold efficiency	Ith		14	16	A
Operation current	Iop		115	125	A
Operation voltage	Vop		1.65	1.85	V
Spectral width FWHM	△λ		3	4	nm
Wavelength shift vs. temp.	△λ/△T		0.35		Nm/°C
Fast divergence angle	$\theta_{\perp}$		27	30	Deg
Slow divergence angle	$\theta_{/\!/}$		6	8	Deg

Remark: Tested with MCC packaged products in the CW mode at 25 °C.

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