

## 20W CW LINEAR BAR ARRAY

### DESCRIPTION

The TH-C1420-S is a high optical power laser diode source operating at 20 Watt in CW mode. This linear bar array is ideal for applications which request high output power like pumping solid state lasers, illuminators, beacons,...

The TH-C1420-S structure is multiple emitters spaced on a monolithic 1cm "bar". The bar is mounted with the active zone (P-side) towards a high conductivity submount to minimize the thermal resistance.

The quality of the epitaxial quantum well structure and of the process leads to high electrical to optical conversion efficiency and reliability.

The compact and rugged package allows easy connection to an efficient heat exchanger. So the submount temperature can be adjusted to tune the emission wavelength. With this open package the optical beam can be directly used to achieve efficient coupling.



### MAIN FEATURES

- 20 W CW optical power
- Monolithic linear array
- 795 to 860nm wavelength range
- Highly reproducible MOCVD process
- Highly reliable
- Very high conversion efficiency

### SPECIFICATIONS

Case temperature: 25°C

PARAMETERS	TH-C1420-S	UNITS
CW output power	20	Watt
Emitting area	10 x 0.001	mm x mm
Threshold current	7	Amp.
Operating current	27	Amp.
Operating voltage	1.85	Volt
Total efficiency	42	%
Beam divergence (FWHM)	10 x 35	degree

#### Note :

- Variation of wavelength is approximately 0.26 to 0.3 nm/°C
- Standard wavelength is 808nm
- Tolerance on wavelength is +/- 3nm
- Spectral width is  $\leq$  3nm FWHM
- Other wavelength selections are available in the range of 795nm to 860nm

## ABSOLUTE MAXIMUM RATINGS

PARAMETERS	TH-C1420-S	UNITS
CW output power	24	Watt
Reverse voltage	3	Volt
Operating temperature	+5 to +35	°C
Storage temperature	-40 to +85	°C

**Note :** Operation at temperature below dew point requests to use dry N2 environment

## PACKAGE SPECIFICATION

- dimensions are in mm
- standard tolerances are  $\pm 0.2$  mm

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