

# TH-C1725-R<sub>(n)</sub> / TH-C1730-R<sub>(n)</sub>

## ACTIVELY COOLED 25W / 30W CW LINEAR BAR ARRAYS

### DESCRIPTION

The TH-C17XX-R<sub>(n)</sub> products are based upon highly performing 25W CW and 30W CW Laser Diode Bar Arrays. The Laser Diode structure is multiple emitters spaced on a monolithic 1cm "bar". The bar is mounted with the active zone (P-side down) towards an actively cooled submount.

The quality of the improved epitaxial quantum well structure and of the process leads to a strong increase in electrical to optical conversion efficiency and reliability.

The actively cooled package has a unique design for easy association in series from n= 2 to 7 TH-C17xx-R elements. So, up to 175W CW (for TH-C1725-R<sub>7</sub> association) or 210W CW (for TH-C1730-R<sub>7</sub> association) are emitted over a line of 9cm. This compact association is an ideal solution to implement powerful solid state laser pumping, illuminators....

### MAIN FEATURES

- 25 W CW and 30W CW optical power per element
- Monolithic linear array
- 795 to 860nm wavelength range
- Highly reproducible MOCVD process
- Actively cooled package
- Specific assembly design for high packing density

### SPECIFICATIONS

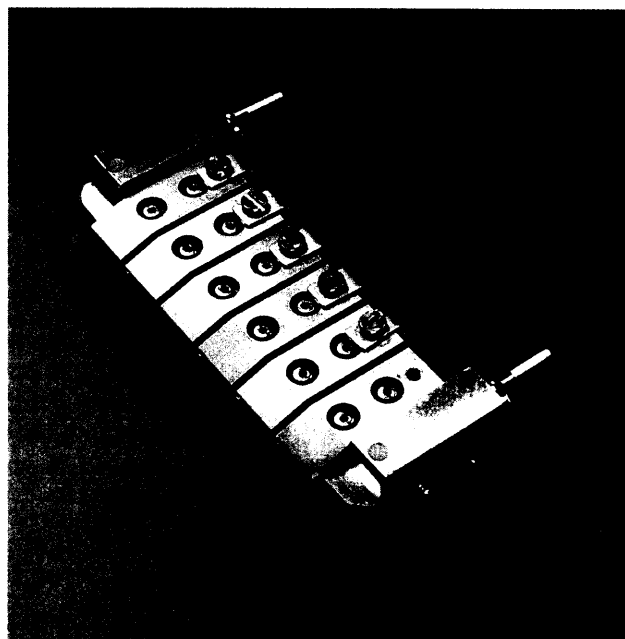
Fluid temperature: 25°C

Flow rate : 1 l/mn

PARAMETERS	TH-C1725-R <sub>(n)</sub>	TH-C1730-R <sub>(n)</sub>	UNITS
CW output power	25 x n	30 x n	Watt
Emitting area	10 x 0.001	10 x 0.001	mm x mm
Threshold current	9	9	Amp.
Operating current	34	39	Amp.
Operating voltage	1.9 x n	1.95 x n	Volt
Total efficiency	39 to 45	41 to 47	%
Beam divergence (FWHM)	10 x 35	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 ≤ 3nm FWHM
- Other wavelength selections are available in the range of 795nm to 860nm



#### Series association

#### TH-C1730-R(6) (6 elements)

**ABSOLUTE MAXIMUM RATINGS**

PARAMETERS	TH-C1725-R <sub>(n)</sub>	TH-C1730-R <sub>(n)</sub>	UNITS
CW output power	27	32	Watt
Reverse voltage	3	3	Volt
Operating temperature	+5 to +35	+5 to +35	°C
Storage temperature	-40 to +85	-40 to +85	°C

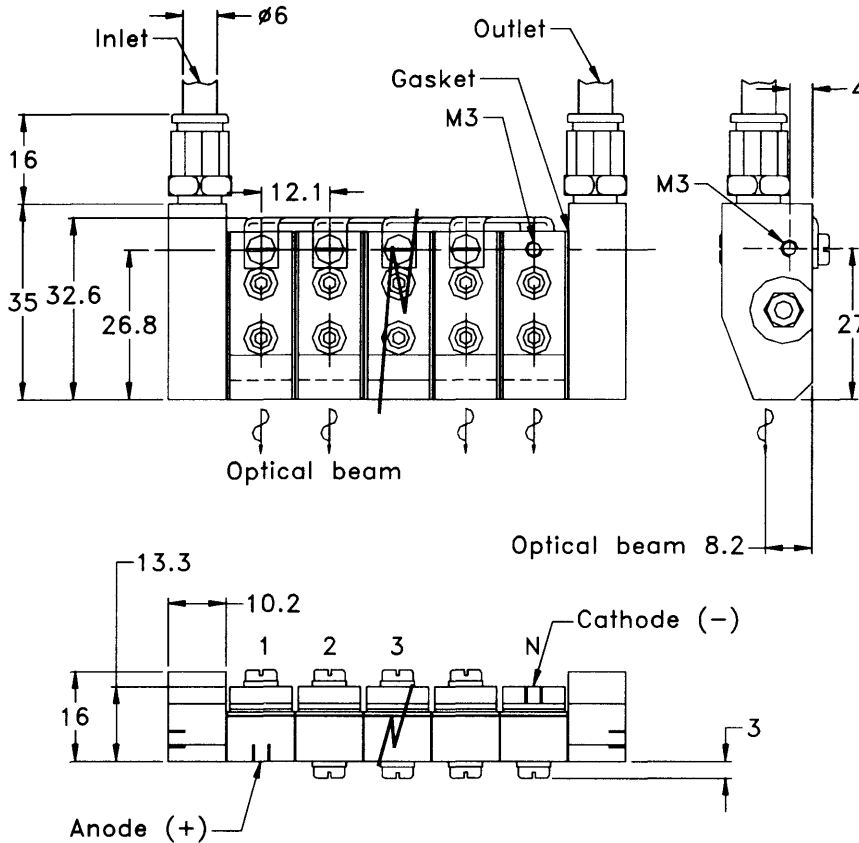
**Note :** Operation at temperature below dew point requests to use dry N2 environment

**PACKAGE SPECIFICATION :**

- dimensions are in mm
- standard tolerances are ± 0.2 mm

**COOLING :** Water

- Flow : 1 l/mn
- Pressure : 1 – 4 bar
- Temperature : 25 °C



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