

# TH-C5520-S or P/ TH-C5530-S or P

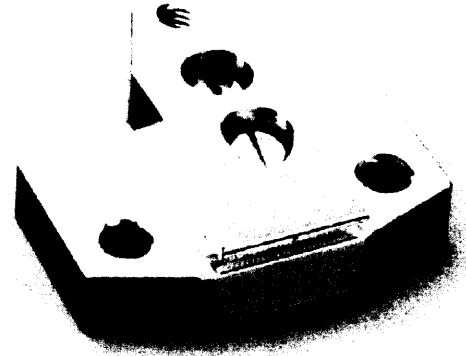
## 940nm CW LINEAR BAR ARRAY

### DESCRIPTION

The TH-C5520-S and TH-C5530-S products are a highly performing 20W CW and 30W CW, 940nm Laser Diode Bar Array assembled on a conductively cooled package. The Laser Diode structure is multiple emitters spaced on a monolithic 1cm "bar". The bar is mounted with the active zone (P side) towards an actively cooled submount.

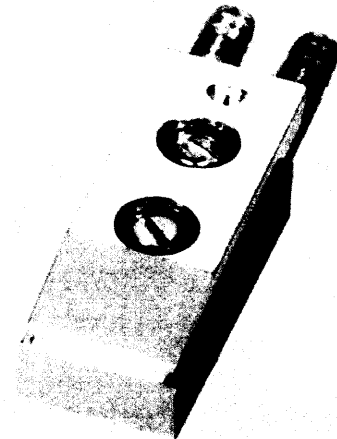
The quality of the epitaxial quantum well structure and of the process leads to high electrical to optical conversion efficiency and reliability.

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

- 20W CW to 30 W CW optical power
- 915 to 980nm wavelength range
- Highly reproducible MOCVD process
- Conductively cooled package
- High conversion efficiency
- Possibility of actively cooled package 'P' or 'R' type



### SPECIFICATIONS

Case or fluid temperature: 25°C flow rate : 1l/mn.

PARAMETERS	TH-C5520-S or P	TH-C5530-S or P	UNITS
CW output power	20	30	Watt
Emitting area	10 x 0.001	10 x 0.001	mm x mm
Threshold current	8	8	Amp.
Operating current	30	42	Amp.
Operating voltage	1.5	1.6	Volt
Total efficiency	42	45	%
Beam divergence (FWHM)	10 x 35	10 x 35	degree

#### Note:

- Variation of wavelength is approximately 0.25 to 0.3 nm/°C
- Standard wavelength is 940nm
- Tolerance on wavelength is +/- 5nm
- Spectral width is  $\leq$  5nm FWHM
- Other wavelength selections are available in the range of 915nm to 980nm

**ABSOLUTE MAXIMUM RATINGS**

PARAMETERS	TH-C5520-S or P	TH-C5530-S or P	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

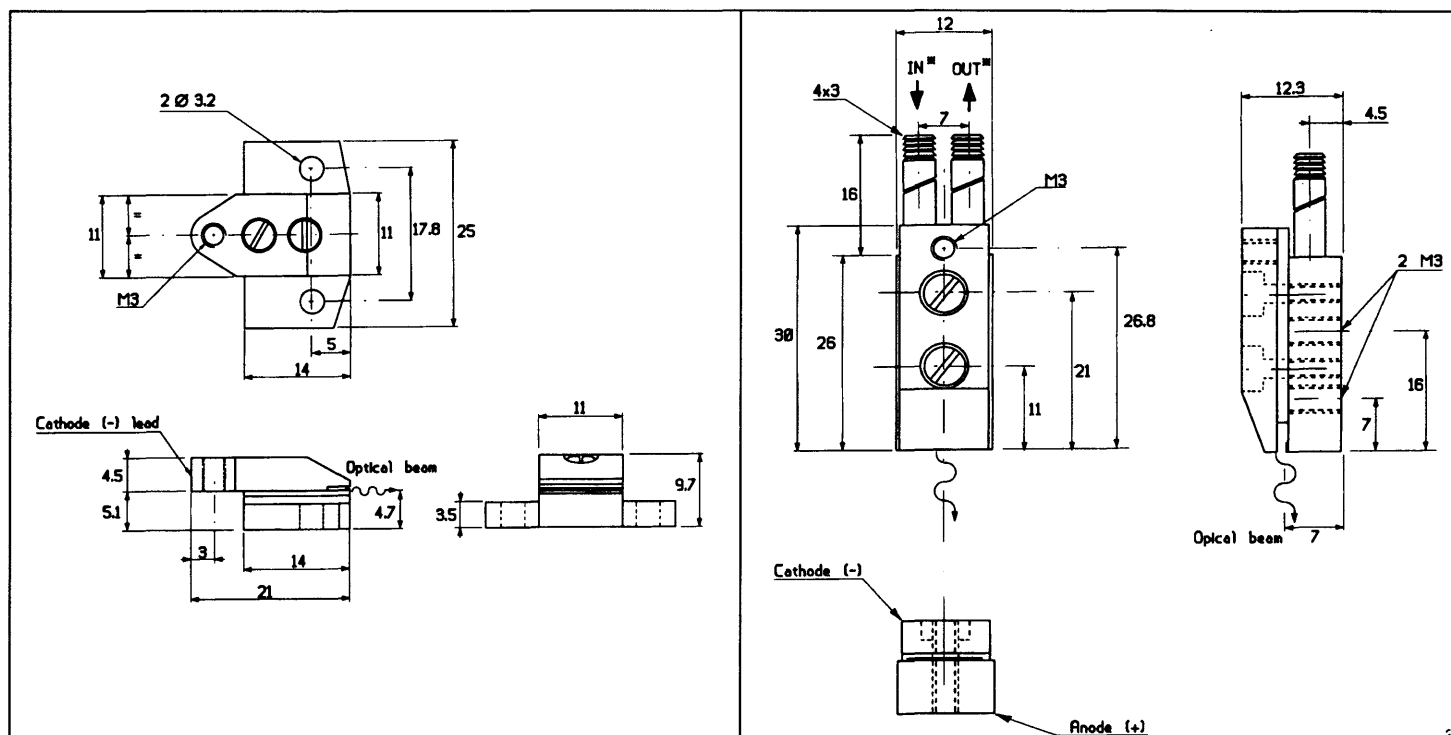
**Note :** Operation at temperature below dew point requests to use dry N2 environment

**PACKAGES SPECIFICATION :**

- dimensions are in mm
- standard tolerances are  $\pm 0.2$  mm
- Temperature : 25°C

**COOLING :**

- Water
- Flow : 1 l/mn
- Pressure : 0.5 bar
- Temperature : 25°C



Package " S " type

Package " P " type

For further information please contact :

THALES LASER DIODES - Route Départementale 128 - BP 46 - 91401 ORSAY Cedex / France

Tel (33) 1 69 33 06 61

Fax : (33) 1 69 33 06 62

E-mail: [infotld@fr.thalesgroup.com](mailto:infotld@fr.thalesgroup.com)

<http://www.laser-diodes.thomson-csf.com>

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