

# TH-C1301-E / TH-C530x-E

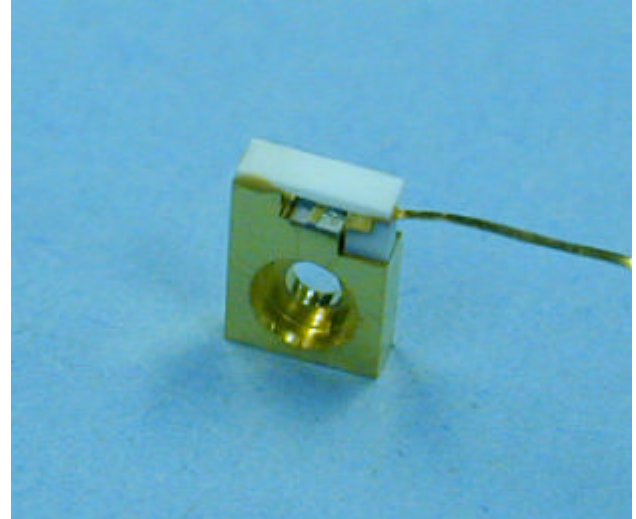
## HIGH POWER SINGLE EMITTER LASER DIODE

### DESCRIPTION

The TH-C1301-E and TH-C530x-E products are broad area single emitters mounted on an open heatsink. The chip is mounted with the active region (P side) towards the submount.

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

Single emitter laser diodes with 1 to 2W CW output power are convenient to design pump sources for small solid state laser.



### MAIN FEATURES

- 1W CW, 2W CW optical power
- 790 to 860nm and 980nm wavelength ranges
- Open heatsink
- High conversion efficiency
- Dedicated to be packaged under dry air atmosphere

### SPECIFICATIONS

Case temperature: 25°C

PARAMETERS	TH-C1301-E 790 to 860nm	TH-C5301-E 940 to 980nm	TH-C5302-E 940 to 980nm	UNITS
CW output power	1	1	2	Watt
Emitting area	100 x 1	100 x 1	100 x 1	µm x µm
Threshold current	0.4	0.3	0.3	Amp.
Slope efficiency	1	0.85	0.85	W/A
Operating current	1.4	1.5	2.6	Amp.
Operating voltage	1.9	1.7	1.9	Volt
Total efficiency	35	40	40	%
Beam divergence (FWHM)	12 x 35	13 x 35	13 x 35	degree

#### Note :

- Variation of wavelength is approximately 0.25 to 0.3 nm/°C
- Spectral width is  $\leq 3$ nm FWHM
- Other wavelength selections are available in the range of 790nm to 980nm

**ABSOLUTE MAXIMUM RATINGS**

PARAMETERS	TH-C1301-E	TH-C530x-E	UNITS
CW output power	1.2	1.2 or 2.2	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

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