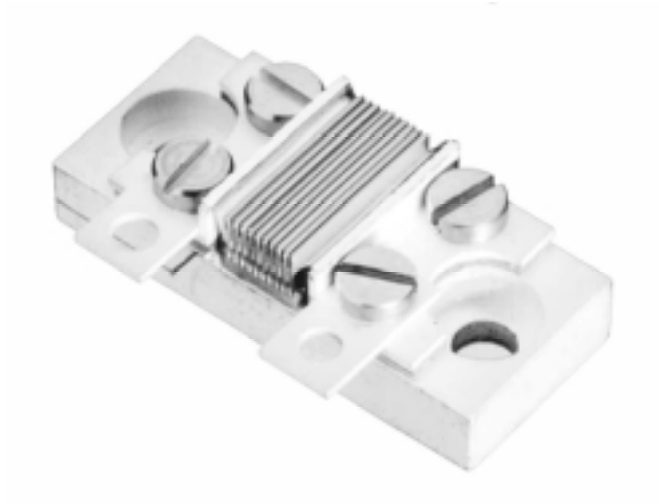
TH-Q1110-B

HIGH TEMPERATURE 600W QCW STACKED ARRAYS

DESCRIPTION

TH-Q1110-B is a conductively cooled laser diodes stack array designed to operate at very high temperature.
Laser diode bar array benefit of fully mastered MOCVD quantum well technology. Appropriate design of epitaxial layers has been developed for improved efficiency and reliable operation at very high junction temperature operation.
Packaging and heat exchanger have been opimized to reduce the overall thermal resistance. TH-Q1110-B stacks are ideal for different applications under severe environmental conditions : pumping rods or slabs solid state lasers, illuminators....
Assembly in a compact and rugged package allows easy connection.



MAIN FEATURES

- 600W peak optical power
- QCW operation (200µs/100Hz)
- Over 60°C case temperature
- 120 mJ energy per pulse
- Low thermal resistance assembly
- Highly reproducible MOCVD process
- GaAlAs quantum well design

SPECIFICATIONS

Product is designed with 10 linear bar arrays

Case temperature : + 60°C Quasi-continuous mode: pulse width = 200µs
repetition rate = 100Hz

PARAMETERS	TH-Q1110-B	UNITS
QCW output power	600	Watt
Energy per pulse	120	mJ
Emitting area	10 x 3.6	mm x mm
Threshold current	25	Amp.
Operating current	90	Amp.
Operating voltage	20	Volt
Total efficiency	31 to 36	%
Beam divergence (FWHM)	12 x 40	degree

Note:
- Variation of wavelength is approximately 0.26 to 0.3 nm/°C
- Standard wavelength is 808nm
- Spectral width is $\leq$ 4nm FWHM
- Tolerance on wavelength is +/- 4nm
- Other wavelength selections are available in the range of 795 nm to 860 nm
- Specifications are for nominal lifetime 10^8 pulses (for 200µs pulse width)

ABSOLUTE MAXIMUM RATINGS :

PARAMETERS	TH-Q1110-B	UNITS
QCW output power	630	Watt
Pulse width	250	µs
Maximum duty cycle	3	%
Reverse voltage	3	Volt
Operating fluid temperature	+20 to +70	°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 ± 0.2 mm

For further information please contact :

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