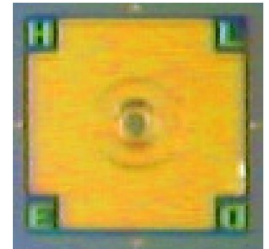


1mW Single-Mode 808nm VCSEL PSM-TO-001-W0808

- Vertical-Cavity Surface-Emitting Laser technology
- > 1mW single-fundamental-mode power at 808 nm
- Top-side emission
- Custom wavelengths available (808 - 1064 nm)



Optical & Electrical Characteristics

PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
CW Single-mode power	I_{op} , 25°C Heat-sink	0.75	1	--	mW
Threshold current	25°C Heat-sink	--	0.25	0.4	mA
Operating current	P_{out} , 25°C Heat-sink	--	2	3	mA
Operating voltage	P_{out} , 25°C Heat-sink	--	2.2	2.5	V
Differential resistance	P_{out} , 25°C Heat-sink	--	200	220	Ω
Slope efficiency	25°C Heat-sink	0.8	0.9	--	W/A
Conversion efficiency	1.4mW, 25°C Heat-sink	30	35	--	%
Center wavelength	P_{out} , 25°C Heat-sink	800	808	816	nm
SMSR (1)	P_{out} , 25°C Heat-sink	-25	-30	--	dB
Wavelength shift	25°C Heat-sink	0.060	0.065	0.070	nm/°C
Beam divergence ($1/e^2$)	P_{out} , 25°C Heat-sink	--	16	20	°

(1) Side-Mode Suppression Ratio

Maximum Absolute Ratings

PARAMETER	CONDITIONS
Forward current	20 mA
Reverse current	25 μ A
Operating temperature	0 to +80 °C
Storage temperature	-40 to +80 °C

Ordering information

PSM – TO – 001 – W0808

Package Type:

BC = Bare Die

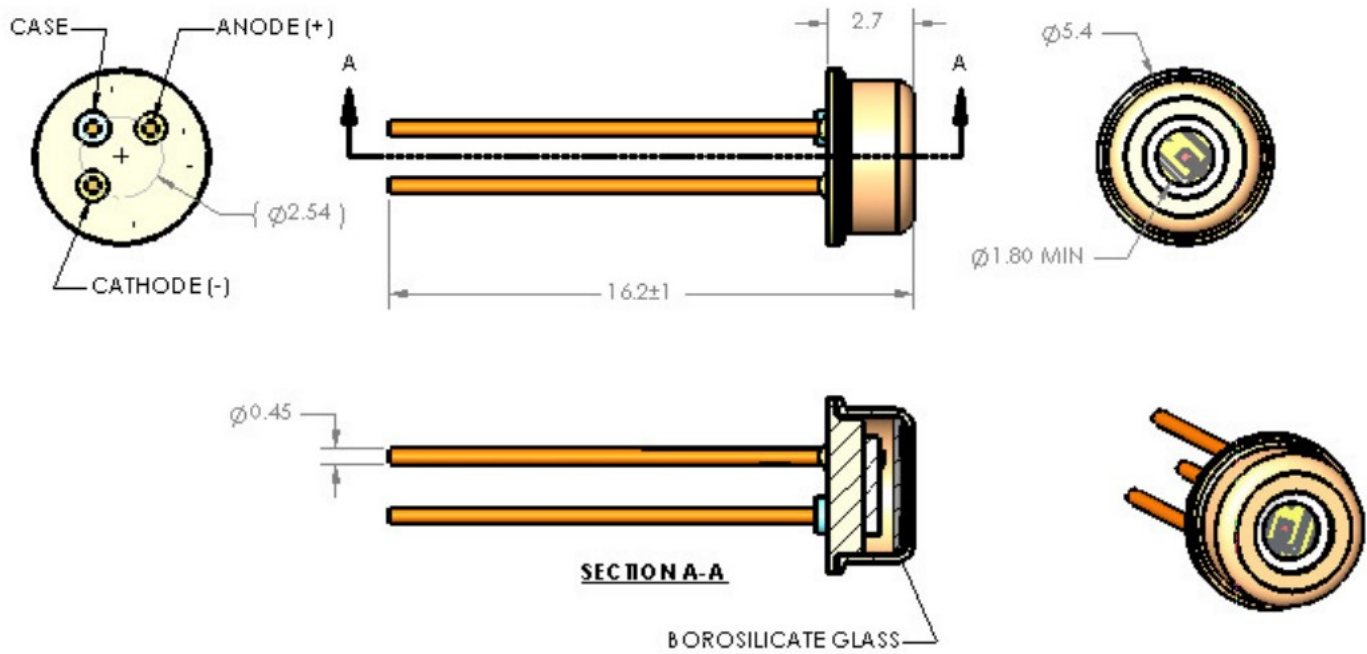
TO = TO-46

BCS = Chip-on-submount

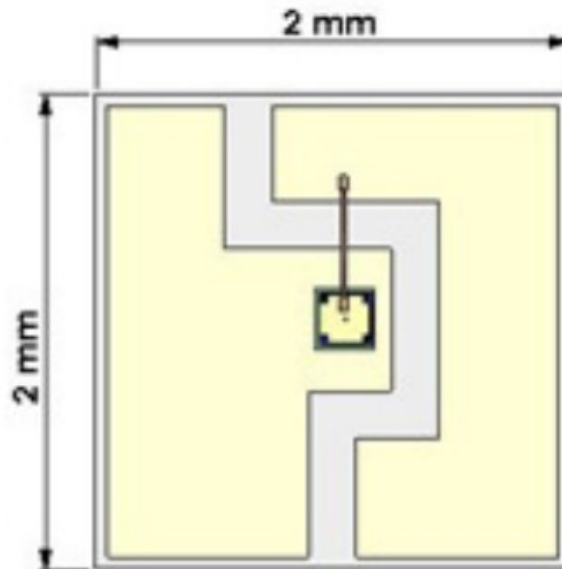
Wavelength (nm)

CW Output Power

TO-46 Package



TO-46 Package



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Laser diode product components are intended for use in a user-devised end system. However, these products are capable of emitting Class IV radiation. Extreme care must be exercised during their operation. Only persons familiar with the appropriate safety precautions should operate a laser product. Directly viewing the laser beam or exposure to specular reflections must be avoided. Serious injury may result if any part of the body is exposed to the beam. The eye is extremely sensitive to the infrared radiation and therefore, proper eye-wear must be worn at all times. Use of optical instruments with these products may increase eye hazard. Always wear eye protection when operating.



REV.B – 8/16