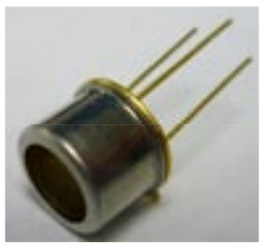
PRINCETON OPTRONICS

3mW Single-Mode, High-Speed 975nm VCSEL
Part # PSM-HS-TO-003-W0975

- *Vertical-Cavity Surface-Emitting Laser technology*
- *3 mW single-fundamental-mode power at 980nm*
- *5 GHz modulation speed*
- *Custom wavelengths available (808-1064nm)*



Optical & Electrical Characteristics

PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
CW Single-mode Power	4mA, 20C Heat-sink	3	3.5	--	mW
Threshold current	20C Heat-sink	--	0.25	0.4	mA
Operating current	3mW, 20C Heat-sink	--	4	5	mA
Operating voltage	3mW, 20C Heat-sink	--	2.2	2.5	V
Differential resistance	3mW, 20C Heat-sink	--	200	220	Ω
Slope efficiency	20C Heat-sink	0.8	0.9	--	W/A
Conversion efficiency	1.4mW, 20C	40	45	--	%
Center wavelength	3mW, 20C Heat-sink	965	975	985	nm
SMSR (1)	3mW, 20C Heat-sink	-25	-30	--	dB
Wavelength shift	20C Heat-sink	0.060	0.065	0.070	nm/°C
Beam divergence (2)	3mW, 20C Heat-sink	--	16	20	°
Modulation speed (3)	3mW, 20C Heat-sink	4	5	--	GHz

(1) Side-Mode Suppression Ratio
(2) Full-width, $1/e^2$
(3) Small signal, 3dB bandwidth

Maximum Absolute Ratings

PARAMETER	CONDITIONS
Forward current	6mA
Reverse current	25μA
Operating temperature	0 to +80 °C
Storage temperature	-40 to +80 °C

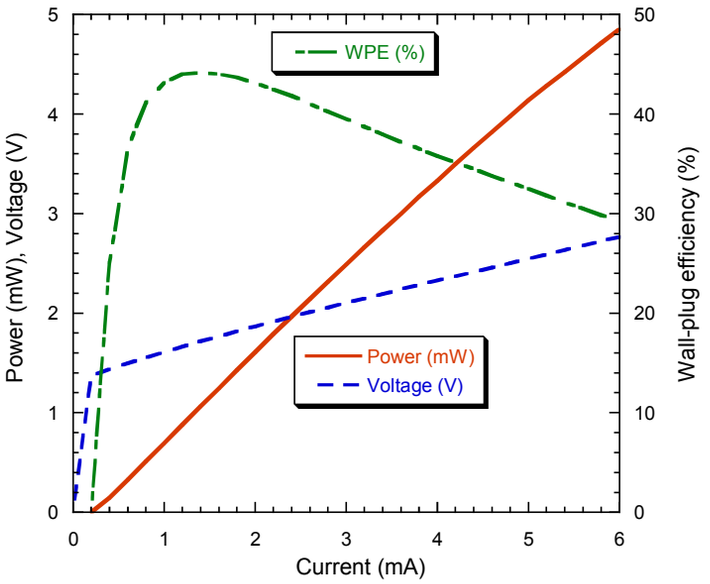
Ordering information

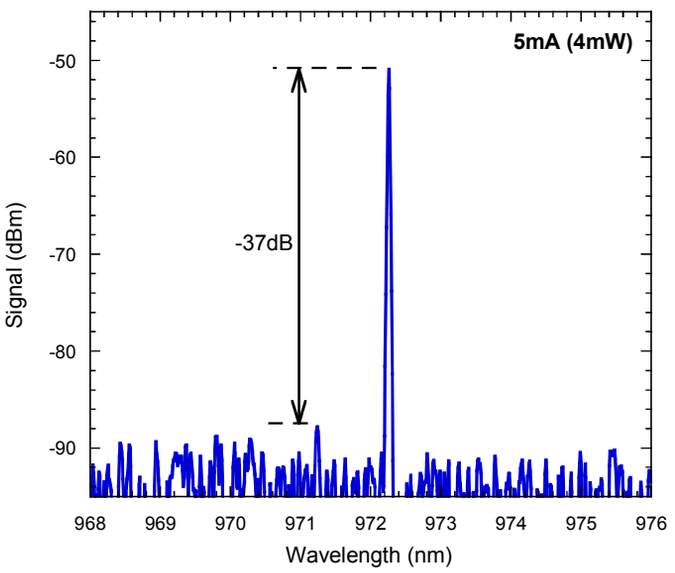
PSM – HS – TO – 003 – W0975

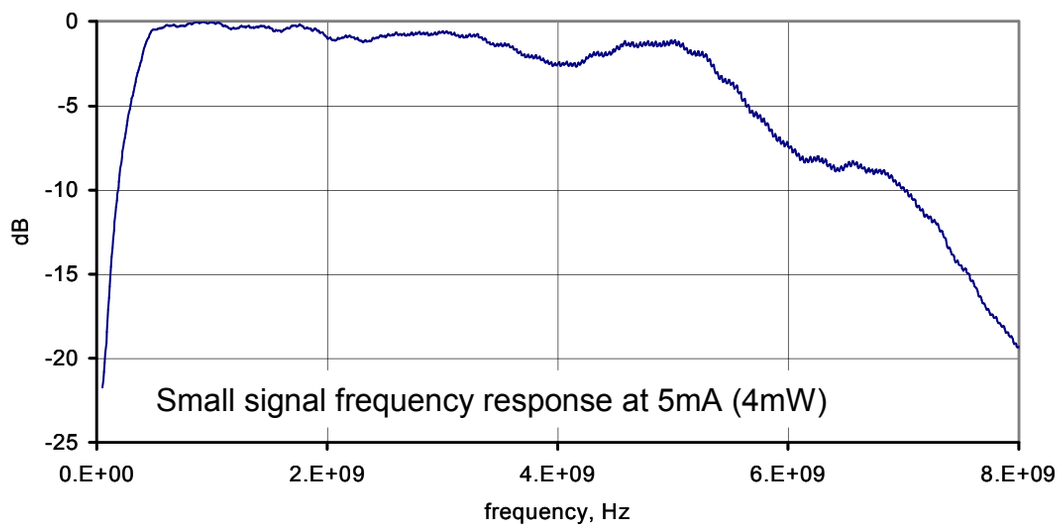
- PSM – HS – TO: Package type
- 003: CW Output Power (mW)
- W0975: Wavelength (nm)

M SQUARE
株式会社 エムスクエア http://www.mxmco.com info@mxmco.com
〒101-0051 東京都千代田区神田神保町1-34-2F TEL(03)3294-0560 FAX(03)3294-0563
〒815-0041 福岡市南区野間 1-10-18 TEL(092)554-6800 FAX(092)554-6802

Typical Performance







Copyright © 2010 Princeton Optronics, Inc.
All Rights Reserved.

Princeton Optronics reserves the right to change product design and specifications at any time without notice.
No license is granted by implication or otherwise under any patents or patent right of Princeton Optronics.
No responsibility is assumed for the use of these products, nor for any infringement on the rights of others resulting from the use of these products

Laser diode product components are intended for use in a user-devised end system. However, these products are capable of emitting Class IIIB 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. A – 05/10

M SQUARE
株式会社 エム スクエア http://www.mxmco.com info@mxmco.com
〒101-0051 東京都千代田区神田神保町1-34-2F TEL(03)3294-0560 FAX(03)3294-0563
〒815-0041 福岡市南区野間1-10-18 TEL(092)554-6800 FAX(092)554-6802