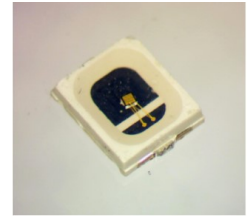


25mW 850nm VCSEL Array PCW-SMS-0025-W0850

- Vertical-Cavity Surface-Emitting Laser technology
- Very high reliability, high temperature operation
- High efficiency
- Surface-mount encapsulated, low-cost, high-volume packaging



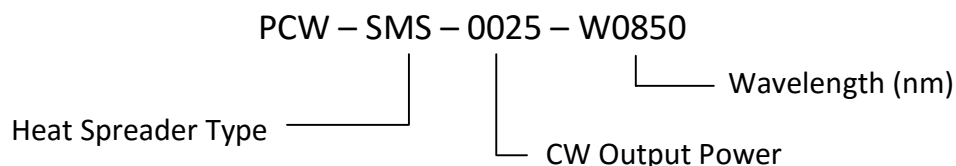
Optical & Electrical Characteristics

PARAMETER	CONDITIONS	TYP	UNIT
CW Output power	20°C Heat-sink	25	mW
Threshold current	20°C Heat-sink	3	mA
Operating current	20°C Heat-sink	30	mA
Operating voltage	20°C Heat-sink	2.2	V
Differential resistance	20°C Heat-sink	25	Ω
Conversion efficiency	20°C Heat-sink	40	%
Center wavelength	20°C Heat-sink	850-870	nm
Spectral width (FWHM)	20°C Heat-sink	1	nm
Wavelength shift	--	0.07	nm/°C
Beam divergence (FW $1/e^2$)	20°C Heat-sink	17	°
Emission area	--	0.2 x 0.2	mm ²

Maximum Absolute Ratings

PARAMETER	CONDITIONS
Forward current	100 mA
Reverse current	1 μ A
Operating temperature	0 to +70 °C
Storage temperature	-40 to +80 °C

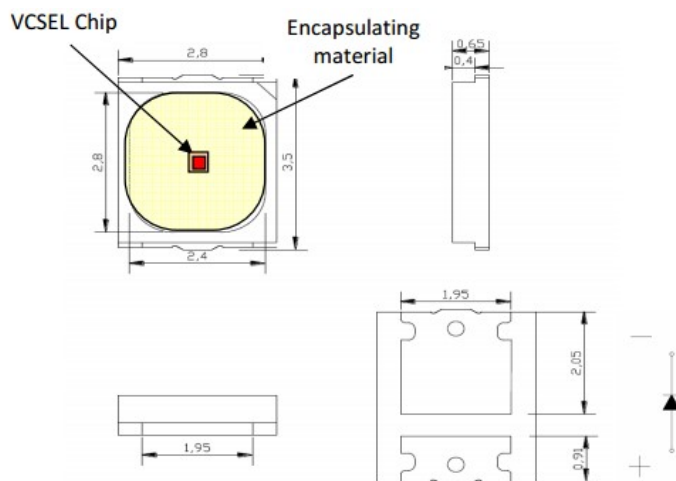
Ordering information



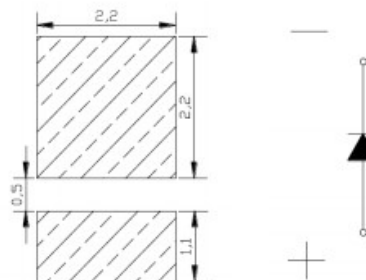
Mechanical Characteristics

PARAMETER	CONDITIONS
Package width	2.8 ± 0.15 mm
Package length	3.5 ± 0.15 mm
Package height	0.65 ± 0.15 mm
Light emitting area	0.3 x 0.3 mm ²
Max solder temperature	260 °C

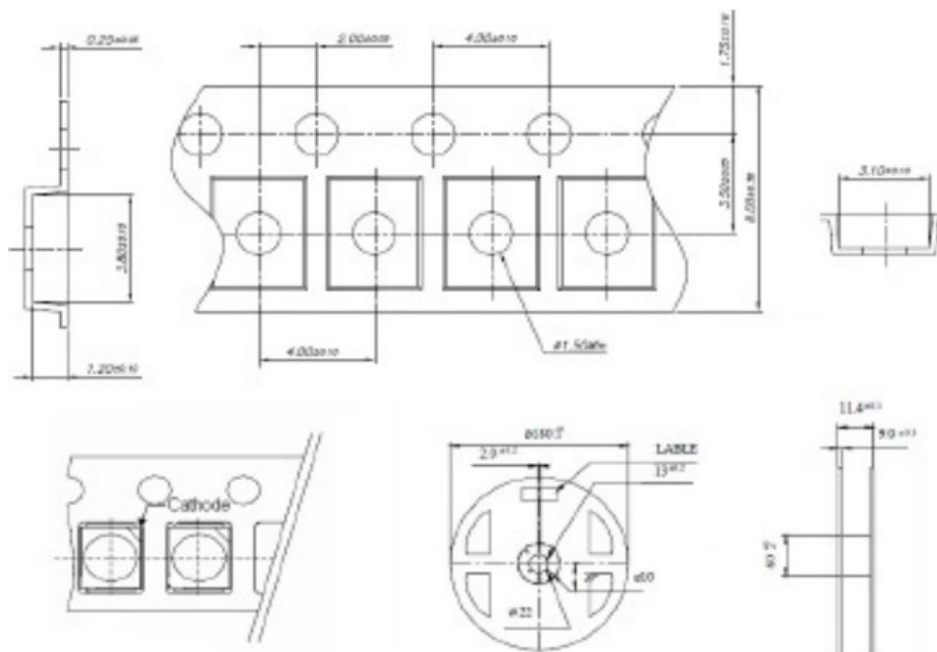
Package Dimensions (mm)



Recommended Solder Pad Design (mm)



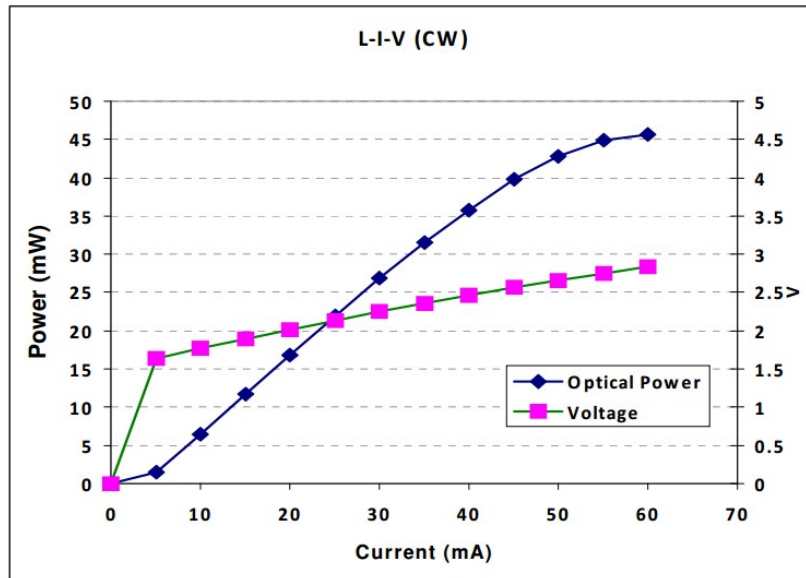
Packing Dimension (Tape & Reel)



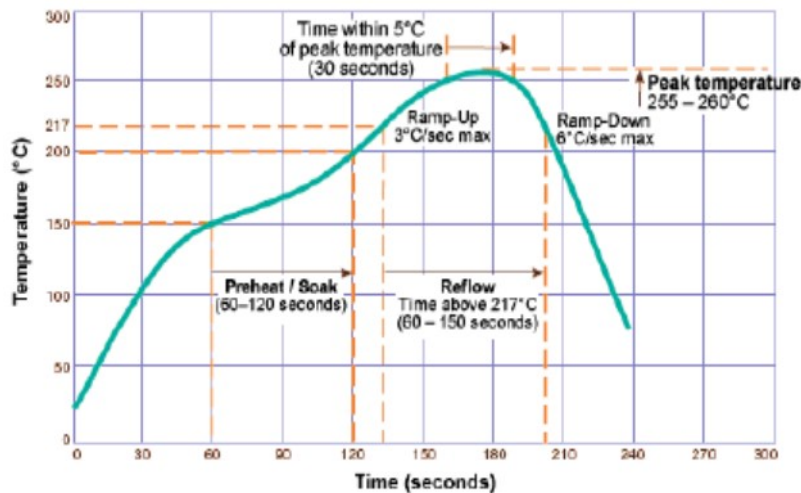
Notes:

- Quantity: 3000 pcs/reel
- Cumulative Tolerance: ±0.2mm / 10 pitches
- Adhesion Strength of Cover Tape: 0.1-0.7N when the cover tape is turned off from the tape at the angle 10° to the carrier tape

Typical Electro-Optical Characteristics



Recommended Reflow Parameters



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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.C- 8/16