TSD-8B30-029

850nm Oxide VCSEL Emitter

Preliminary

ELECTRO-OPTICAL CHARACTERISTICS：

PARAMETERS	SYMBOL	MIN	TYP	MAX	UNIT	CONDITIONS
Threshold Current	I_{th}		35		mA	
Output Power	P_o	100	120		mW	I_F =150mA
Slope Efficiency	η		1.0		W/A	
Forward Voltage	V_F		2.0	2.3	V	I_F =150mA
Conversion efficiency	PCE		35		%	I_F =150mA
Wavelength	λ_P	840	850	860	nm	I_F =150mA
Wavelength Shift			0.07		nm/℃	
Beam Divergence	θ		25		degree	I_F =150mA ($1/e^2$)

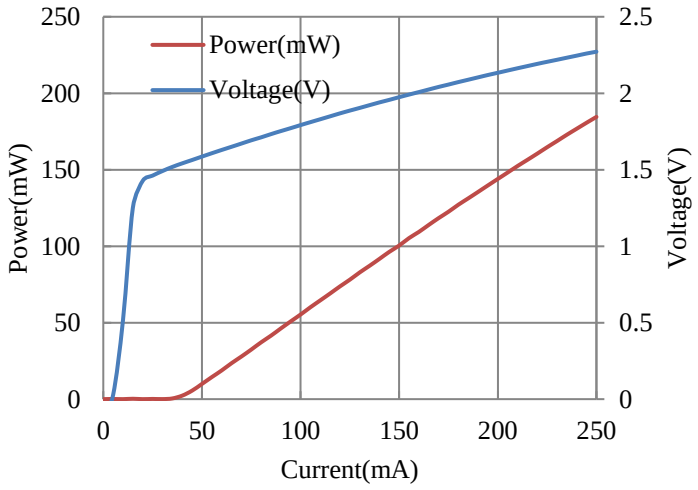
Notes:

All parameters except mentioned are measured at 25℃, CW operation.

ABSOLUTE MAXIMUM RATINGS：

PARAMETERS	MIN	MAX	UNIT	CONDITIONS
Storage Temperature	-40	125	℃	
Operating Temperature	-20	85	℃	
Continuous Forward Current		200	mA	
Solder Reflow Temperature		260	℃	max 10 seconds

ELECTRO-OPTICAL CHARACTERIZATION：



Typical electro / optical characteristics curves measured at 25℃, CW operation

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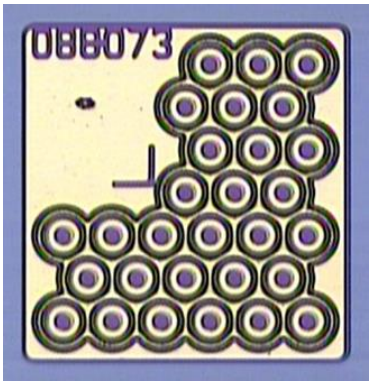
OUTLINE DIAGRAM：

- Chip length：290 μm ± 10 μm
- Chip width： 280 μm ± 10 μm
- Chip thickness：150 ± 15 μm
- Anode bond pad：110 x 110 um
- Number of apertures：29



WARNING：

The VCSEL is a class 3B laser in the safety standard IEC60825-1:2014 and should be treated to avoid exposure to beam.