TSD-9A30-703

Implant VCSEL Emitter(940nm)

ELECTRO-OPTICAL CHARACTERISTICS：

PARAMETERS	SYMBOL	MIN	TYP	MAX	UNIT	CONDITIONS
Threshold Current	I_{th}		6		mA	
Output Power	P_o	8	11	14	mW	I_F=24mA
Slope Efficiency	η		0.60		mW/mA	
Forward Voltage	V_F		2.1	2.25	V	I_F=24 mA
Series Resistance	R_s		20		Ω	
Wavelength	λ_P	930	940	955	nm	I_F=24mA
Beam Divergence	θ		15		degree	I_F=24 mA ($1/e^2$)

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

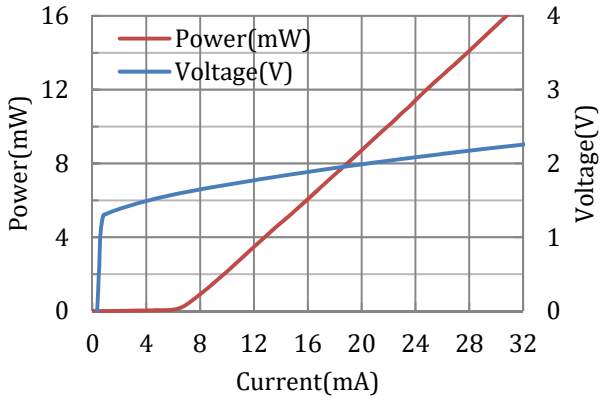
THERMAL CHARACTERISTICS：

PARAMETERS	MIN	TYP	MAX	UNIT	CONDITIONS
P_O Temperature Coefficient		-1.0		%/℃	T_a=0~70℃/I_F=24mA
V_F Temperature Coefficient		-2.5		mV/℃	T_a=0~70℃/I_F=24mA
λ_P Temperature Coefficient		0.065		nm/℃	T_a=0~70℃/I_F=24mA

ABSOLUTE MAXIMUM RATINGS：

PARAMETERS	MIN	MAX	UNIT	CONDITIONS
Storage Temperature	-40	125	℃	
Operating Temperature	-20	70	℃	
Continuous Forward Current		30	mA	
Reverse Voltage		5	V	

ELECTRO-OPTICAL CHARACTERIZATION：



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

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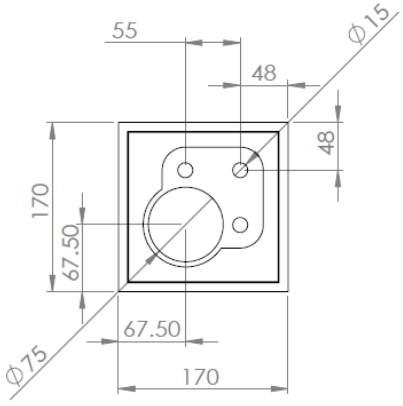
OUTLINE DIAGRAM：

- Chip length：170 μm ± 10 μm
- Chip width： 170 μm ± 10 μm
- Chip thickness：150 ± 15 μm
- Anode bond pad： Φ75um ± 2 μm



WARNING：

The VCSEL is a class 3R laser in the safety standard IEC60825-1:2014 and avoid direct eye exposure.