TSD-8A20-700

Implant VCSEL Emitter(850nm)

ELECTRO-OPTICAL CHARACTERISTICS:

PARAMETERS	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITIONS
Threshold Current	I_{th}	2	3.5	5	mA	
Output Power	P_o	2.5	3	3.6	mW	I_F =12 mA
Wavelength	λ_P	840	850	865	nm	I_F =12 mA
Forward Voltage	V_F	1.8	1.95	2.1	V	I_F =12 mA
Beam Divergence	θ			15	degree	I_F =6 mA ($1/e^2$)
ESD	V_{ESD}		600		V	Human body mode

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

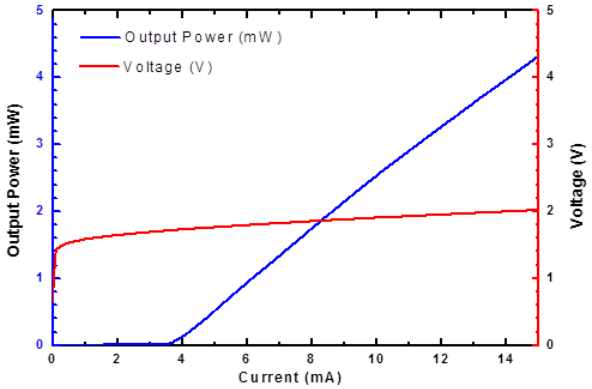
THERMAL CHARACTERISTICS:

PARAMETERS	MIN	TYP	MAX	UNIT	CONDITIONS
P_O Temperature Coefficient		-1.0		%/℃	T_a=0~70℃ / I_F=12mA
V_F Temperature Coefficient		-2.5		mV/℃	T_a=0~70℃ / I_F=12mA
λ_P Temperature Coefficient		0.06		nm/℃	T_a=0~70℃ / I_F=12mA

ABSOLUTE MAXIMUM RATINGS:

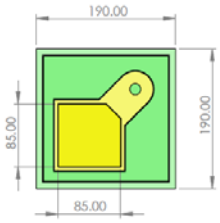
PARAMETERS	MIN	MAX	UNIT	CONDITIONS
Storage Temperature	-40	125	℃	
Operating Temperature	-20	70	℃	
Continuous Forward Current		12	mA	
Continuous Reverse Voltage		5	V	10μA

TYPICAL ELECTRO-OPTICAL CHARACTERISTICS CUVERS(Ta=25℃):



OUTLINE DIAGRAM:

- Chip length: 190 μm
- Chip width: 190 μm
- Chip thickness: 200 ± 15 μm



WARNING:

The VCSEL is a class IIIb laser in the safety standard ANSI Z136.1 and should be treated as a potential eye hazard.