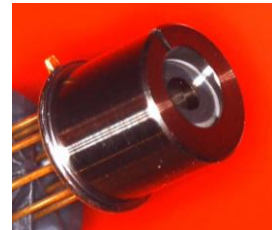
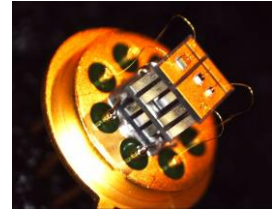


P763/01_2

- ✓ 763 nm single-mode VCSEL
- ✓ 2 nm tuning range
- ✓ Designed for TDLAS application
- ✓ ESD protection built in



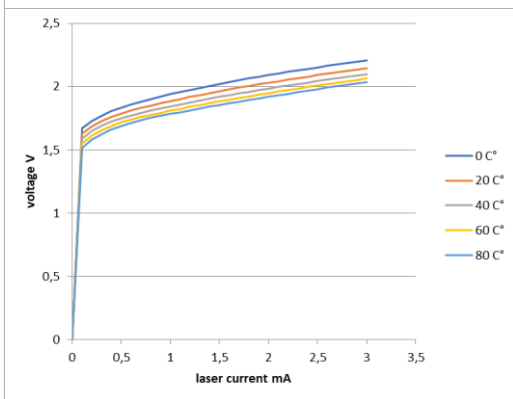
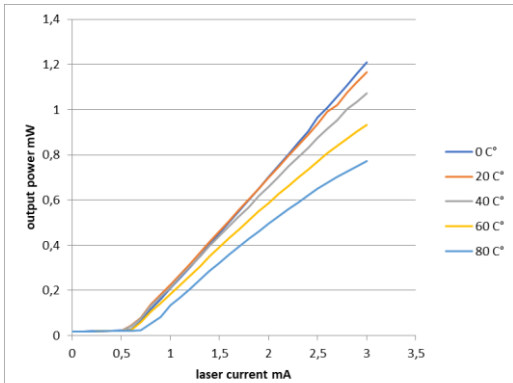
ELECTRO-OPTICAL CHARACTERISTICS						
PARAMETER	SYMBOL	UNIT	MIN	TYP	MAX	CONDITIONS
Emission wavelength	λ_R	nm	762	763	764	T = 20°C, I _{OP} = 2.0 mA
Threshold current	I _{TH}	mA		0,5	1,0	T = 20°C
Output power	P _{opt}	mW	0,3			T = 20°C
Laser current	I _{OP}	mA			2,0	P _{opt} = 0.3 mW
Laser voltage	U _{OP}	V		2,0		P _{opt} = 0.3 mW
Slope efficiency	η_S	W/A		0,5		T = 20°C
Differential series resistance	R _S	Ω		150		T = 20°C, I _{OP} = 2.0 mA
3dB modulation bandwidth	ν_{3dB}	GHz	0,1			T = 20°C, I _{OP} = 2.0 mA (due to ESD protection diode)
Wavelength tuning over current		nm/mA	0,2	0,4	0,6	
Wavelength tuning over temperature		nm/K		0,06		
Thermal resistance (VCSEL chip)	R _{thermal}	K/mW	3		5	
Side mode supression		dB	20			T = 20°C, I _{OP} = 2.0 mA
Beam divergence	θ	°	10		25	T = 20°C, I _{OP} = 2.0 mA, full width 1/e ²
Integrated TEC&thermistor						
TEC current		mA	-200		200	TEC voltage <0.5 V
NTC Thermistor Resistance		K Ω	9,5	10	10,5	T = 25°C
NTC Temperature Dependence		K Ω	10/exp[3892·(1/298K-1/T _{op})]			

*typical emission wavelength can be determined between 759 and 764nm

MAXIMUM RATINGS			
PARAMETER	UNIT	MIN	MAX
Ambient temperature	°C	-20	55
Storage temperature	°C	-40	85
Laser current	mA	-10	3
TEC current	mA	-250	250
ouput power cw	mW		10

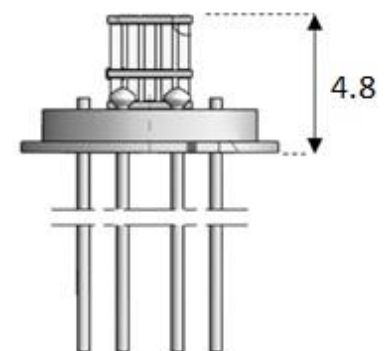
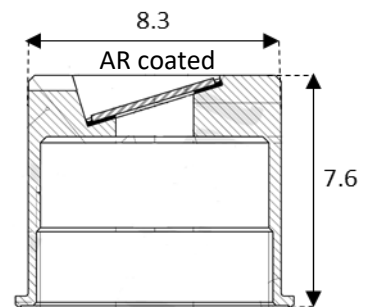
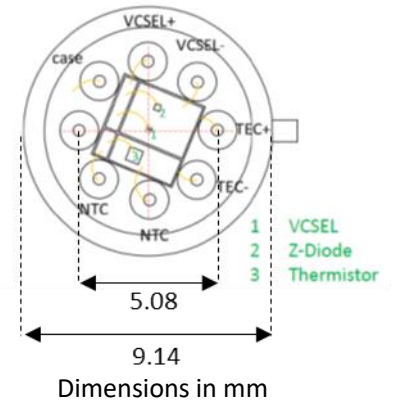


LIV(T)

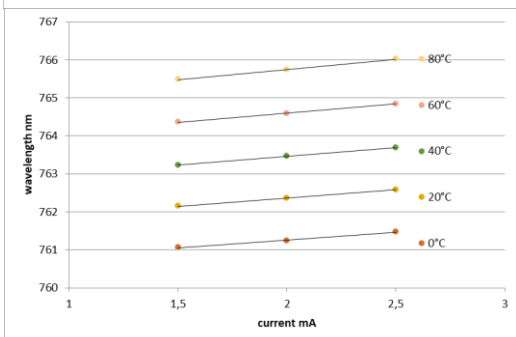
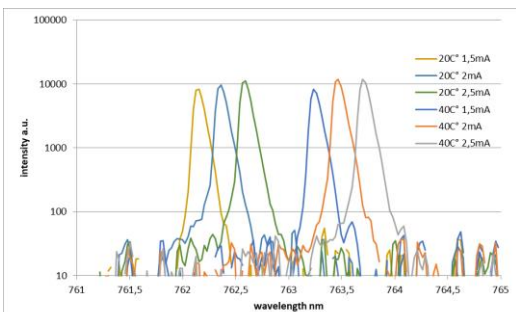


Top view

TO39



OS(T)



Product ID: P763/01_2

TO39 w/ TEC, thermistor & ESD protection

Product ID is adjusted according to selection of typical emission wavelength