

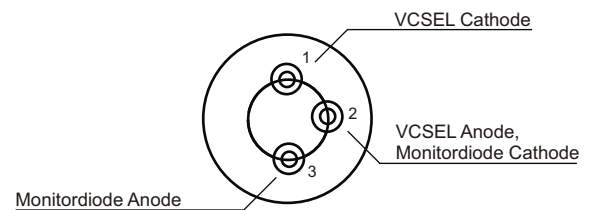
High Speed - VCSEL 850 nm (VCSEL = Vertical Cavity Surface Emitting Laser)

Features of Diode

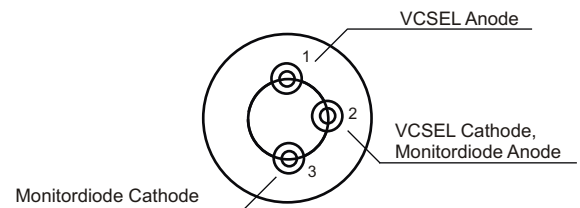
- 850 nm multi-mode oxide isolated VCSEL
- Capable of modulation operation from DC to 2.5 Gbps
- TO-46 flat window metal can component
- Designed for drive currents between 3-15 mA average
- Packaged with a back monitor
- Unattenuated version



PINOUT (Bottom View)



Type A



Type B

Absolute maximum ratings

| Parameter | Min. | Max. |
|----------------------------------|--------|--------|
| Storage temperature | -40 °C | 100 °C |
| Operating temperature | -40 °C | 85 °C |
| Laser continuous forward current | | 12 mA |
| Laser reverse voltage | | 5.0 V |

Electrical-optical characteristics

| Parameter VCSEL | Test Condition | Min. | Typ. | Max. |
|-------------------------------|--|--------|----------|--------|
| Wavelength | $I_F = 7 \text{ mA}$, $T_A = 0 \text{ °C to } 85 \text{ °C}$ | 830 nm | 850 nm | 860 nm |
| Threshold current | | 0.5 mA | 1.8 mA | 2.5 mA |
| Laser forward voltage | $I_F = 7 \text{ mA}$ | | 1.8 V | 2.0 V |
| Rise and fall time | $P_{AVG} = 2 \text{ mW}$, extinct. Ratio=10 | | | 150 ps |
| Parameter Monitor diode | Test Condition | Min. | Typ. | Max. |
| Monitor current | $P_O = 0.625 \text{ mW}$, $T_A = 25 \text{ °C}$ | | 0.025 mA | |
| Dark current | $P_O = 0 \text{ mW}$, $V_R = 3 \text{ V}$ | | | 20 nA |
| PD capacitance | $V_R = 3 \text{ V}$, $f = 1 \text{ MHz}$ | | 40 pF | 55 pF |
| Parameter Receptacle | | Min. | Typ. | Max. |
| Optical output power (type A) | Multimode 50/125 μm fiber | | 1.4 mW | |
| Possible receptacle (type A) | ST1, ST2, ST4, P2, LC, SC, FC1, FC2, Fiberdip, SMA1 ¹⁾ , SMA2 ¹⁾ | | | |

Compliant with RoHS-requirements (2002/95/EG vom 27.01.2003)