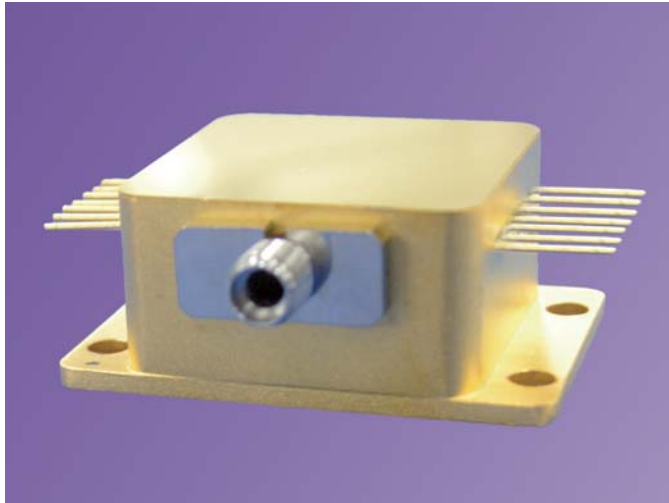


976nm 10W Detachable Laser Diode Module

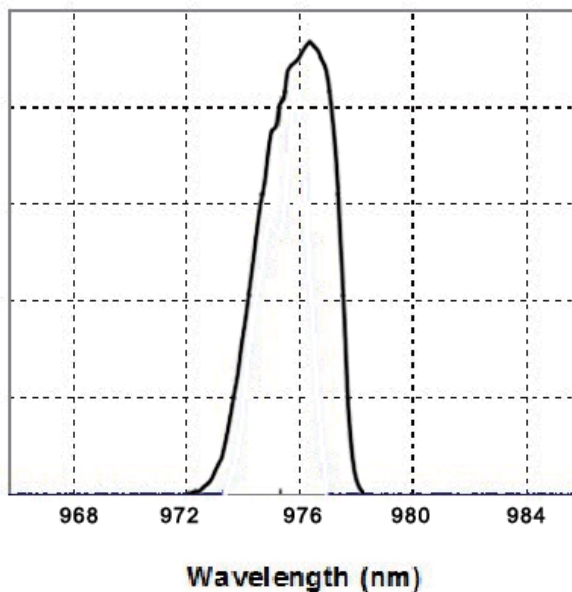
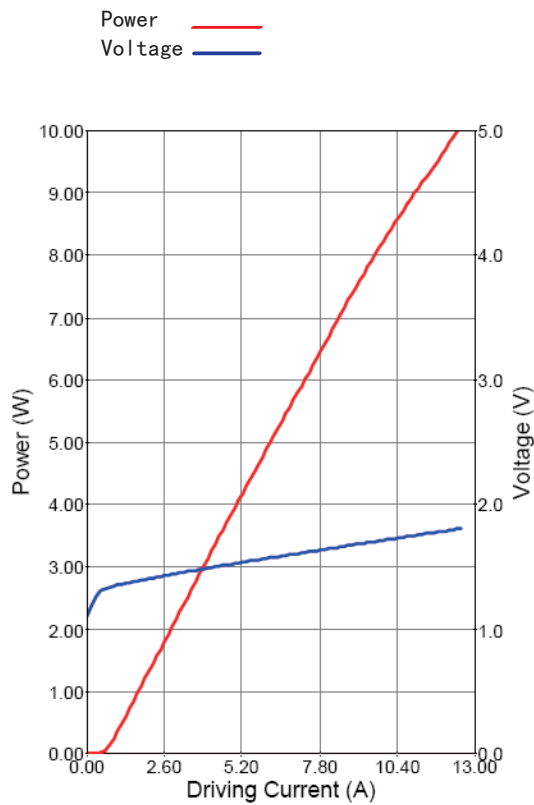
Functions: PD, TEC, Thermistor, Aiming Beam, Fiber Detector

G976-10WD-14HHL-PTFS



| Features |
|----------------------------|
| Output power:10W |
| Wavelength:976nm |
| Aiming beam: 650nm |
| Fiber coupling for: 200 μm |
| 0.22NA |
| Fiber detector |
| Application |
| Medical use |
| Material processing |

976nm Characteristics (25°C)



Typical Device Performance (25°C)

| Parameter | | Symbol | Typical | Unit |
|------------|-----------------------------------|-----------------------------|-------------------------|--------------------------------|
| | | | G976-10WD-14HHL-PTFS | |
| Optical | CW Output Power | P_{op} | 10 | W |
| | Center Wavelength | λ_c | $976 \pm 3, 976 \pm 10$ | nm |
| | Spectral Width (90% of Power) | $\Delta \lambda$ | <3 | nm |
| | Wavelength Shift with Temperature | $\Delta \lambda / \Delta T$ | 0.3 | nm/°C |
| Pilot beam | Output Power | P_a | >2 | mW |
| | Wavelength | λ_a | 650 ± 10 | nm |
| | Voltage | V_a | 2, 2, 5, 0 | V |
| | Current | I_a | <30 | mA |
| Electrical | Threshold Current | I_{th} | 0.6 | A |
| | Operating Current | I_{op} | 12 | A |
| | Operating Voltage | V_{op} | 1.9 | V |
| | Slope Efficiency | η_{es} | 0.8-0.9 | W/A |
| | PD | I_{mo} | 0.2-2.0 | mA |
| | TEC Max Current | I_t | 6 | A |
| | TEC Max Voltage | V_t | 9.8 | V |
| | Thermistor | R_t | $10 \pm 5\% / 3477$ | (K Ω) / β (25°C) |
| Fiber | Fiber Core Diameter | d_{core} | 200, 400 | μm |
| | Numerical Aperture | NA | 0.22 | - |
| | Connector | - | ST, FC, SMA905 | - |

Other Parameters

| Parameter | Operating Temperature /°C | Storage Temperature /°C | Storage Relative Humidity /% | Lead Soldering Temperature, 10s max/ °C | MTBF/h |
|-----------|---------------------------|-------------------------|------------------------------|---|--------|
| Min | 10 | -20 | - | - | 10000 |
| Max | 30 | 80 | 90 | 250 | - |

Package Dimensions (mm)

| Pin | Function | Pin | Function |
|-----|------------|-----|--|
| 1 | Case | 8 | TEC (-) |
| 2 | Laser (+) | 9 | Fiber Detection PDP |
| 3 | Thermistor | 10 | Fiber Detection LED (-) |
| 4 | Thermistor | 11 | Fiber Detection LED (+) Fiber Detection PDN |
| 5 | Laser (-) | 12 | Aiming Beam LD (+) |
| 6 | PD (P) | 13 | Aiming Beam LD (-) |
| 7 | PD (N) | 14 | TEC (+) |

