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| Main technical data:  |  |  |  | | --- | --- | --- | | Wavelength range | 790..820 or 940..980nm | | | Spectral width (FWHM) | 2 nm | | | Beam divergance (FWHM) | 40x10 degrees | | | **Temperature coefficients** | | | | threshold current, T° | | 120..140°C | | T° can be modeled as ITH2=ITH1exp[(T2-T1)/To] | | operating current | | 0.8%/°C | | wavelength generation | | 0.3nm/°C | | Thermal resistance | | 5..10°C/W | | Series resistance, typical | | Rs=(Voper-1,5V)/Iop | | Monitor photodiode | sensitivity | 0.3..10 mkA/mW | | operates without reverse bias | |  |  |  |  | | --- | --- | --- | | **Thermoelectric Cooler** | | | | Max. Drive Current | TB-31-0,6/0,8 for ATC-C500 | 2.0 A | | TB-17-1,0/0,7 for ATC-C1000 | 7.0 A | | Max. Drive Voltage | TB-31-0,6/0,8 for ATC-C500 | 3.5 V | | TB-17-1,0/0,7 for ATC-C1000 | 2.0 V | | Thermistor R @ +25°C | 10kOhm ± 5% | |  |  |  | | --- | --- | | Typical ATC-SD laser diodes and arrays characteristics **Typical Light vs Current characteristics** | | | http://www.atcsd.ru/grapfic/500-35.gif | http://www.atcsd.ru/grapfic/500-200.gif | http://www.atcsd.ru/grapfic/1000-100.gif | | http://www.atcsd.ru/grapfic/2000-200.gif | http://www.atcsd.ru/grapfic/2000-100.gif | http://www.atcsd.ru/grapfic/3000-380.gif | | http://www.atcsd.ru/grapfic/4000-500.gif | http://www.atcsd.ru/grapfic/4000-200.gif | http://www.atcsd.ru/grapfic/Q60-11.gif | | http://www.atcsd.ru/grapfic/Q70-11.gif | http://www.atcsd.ru/grapfic/q100-11.gif | http://www.atcsd.ru/grapfic/q150-11.gif |  |  |  |  | | --- | --- | --- | | **Typical Emission spectrum** | **Typical Farfield energy distribution** | | | http://www.atcsd.ru/grapfic/LDspectr.gif | http://www.atcsd.ru/grapfic/LDfar1.gif | http://www.atcsd.ru/grapfic/LDfar2.gif | |
| High power diode lasers are - according to International Electronical Commission Standard - class 4 laser products. The lEC-Standard includes safety regulations for eye and personnel protection that must be observed to avoid any harm to operating personnel. |

## Основные технические характеристики:

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| Длина волны излучения | 790..820 или 940..980 нм | |
| Спектральная ширина (FWHM) | 2 нм | |
| Расходимость излучения (FWHM) | 40x10 градусов | |
| **Температурные коэффициенты** | | |
| Пороговый ток, T° | | 120..140 °C |
| T° определяется выражением ITH2=ITH1exp[(T2-T1)/To] |
| Рабочий ток | | 0.8 %/°C |
| Длина волны генерации | | 0.3 нм/°C |
| Тепловое сопротивление | | 3..8 °C/Вт |
| Последовательное омическое сопротивление, определяется выражением | | Rs=(Voper-1,5 В)/Iop |
| Фотодиод обратной связи | чувствительность | 0.3..10 мкА/мВт |
| работает без обратного смещения | |

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| **Термобатарея** | | |
| Максимальный ток | TB-31-0,6/0,8 для ATC-C500 | 2.0 A |
| TB-17-1,0/0,7 для ATC-C1000 | 7.0 A |
| Maксимальное напряжение | TB-31-0,6/0,8 для ATC-C500 | 3.5 В |
| TB-17-1,0/0,7 для ATC-C1000 | 2.0 В |
| Tерморезистор R при +25 °C | 10 КОм ± 5 % | |

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| **Типичные ватт-амперные характеристики** | | |
| <http://www.atcsd.ru/rus/grapfic/500-200.gif> | <http://www.atcsd.ru/rus/grapfic/1000-100.gif> |  |
| **ATC-C1000-380**  <http://www.atcsd.ru/production/laser_diodes_and_series/c1000-380.JPG> | **ATC-10000-200**  <http://www.atcsd.ru/production/laser_diodes_and_series/c10000.JPG> | **ATC-C15000-400**  <http://www.atcsd.ru/production/laser_diodes_and_series/c15000.JPG> |
| <http://www.atcsd.ru/rus/grapfic/2000-100.gif> | <http://www.atcsd.ru/rus/grapfic/4000-200.gif> | **ATC-C8000-200**  <http://www.atcsd.ru/production/laser_diodes_and_series/c8000.JPG> |
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| **ATC-Q250-10-810**  <http://www.atcsd.ru/production/laser_diodes_and_series/q250.JPG> | **ATC-Q120-10-940** <http://www.atcsd.ru/production/laser_diodes_and_series/q120.JPG> |  |

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| **Типичный спектр  излучения** | **Типичное распределение  энергии в дальнем поле** | |
| <http://www.atcsd.ru/rus/grapfic/LDspectr.gif> | <http://www.atcsd.ru/rus/grapfic/LDfar1.gif> | <http://www.atcsd.ru/rus/grapfic/LDfar2.gif> |