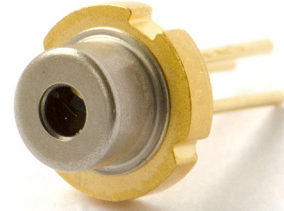


TG 442-S

Visible and UV laser diodes in TO56 package



Features:

Optical output power: 50mW (T_{case}=20°C)

Peak wavelength: 442+/- 2 nm @RT

Efficient radiation source for cw and pulsed operation

Single tranverse mode semiconductor laser

Absolute maximum ratings

| Item | Symbol | Absolute Maximum Ratings | Unit |
|----------------------------|---------------|--------------------------|------|
| Allowable Reverse Current | I_r | 1 | [uA] |
| PD Reverse Voltage | V_r | 5 | [V] |
| Storage Temperature | $T_{storage}$ | -10~85 | [°C] |
| Operating Case Temperature | T_C | 0~60 [*] | [°C] |

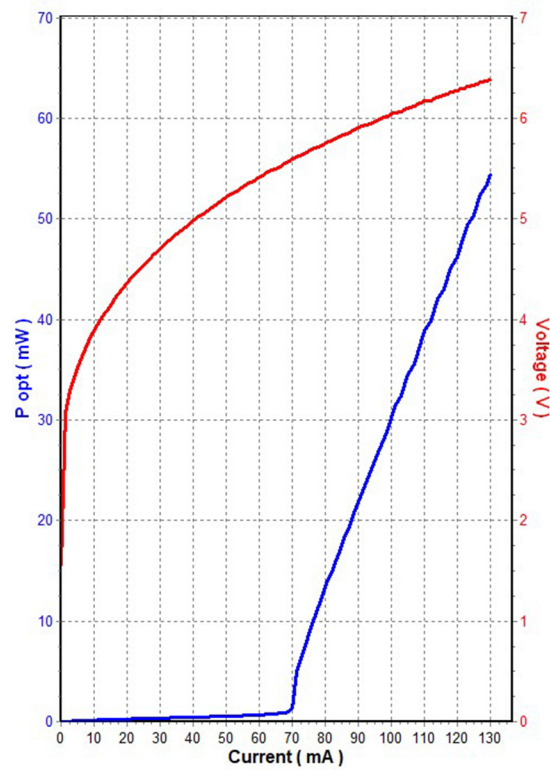
Electric/Optical Characteristics

| Item | Condition | Symbol | Value | Unit |
|------------------------------|------------|-------------|----------|----------|
| Optical Output Power | CW | P_O | 50 | [mW] |
| Peak Wavelength | $P_O=50mW$ | λ_p | 442 +/-2 | [nm] |
| Threshold Current | CW | I_{th} | 54-69 | [mA] |
| Operating Current | $P_O=50mW$ | I_{op} | 113-124 | [mA] |
| Temperature wavelength shift | $P_O=50mW$ | DI | 0.05 | [nm/deg] |
| Beam divergence - Fast axis | | | 32 | deg |
| Beam divergence - Slow axis | | | 7 | deg |

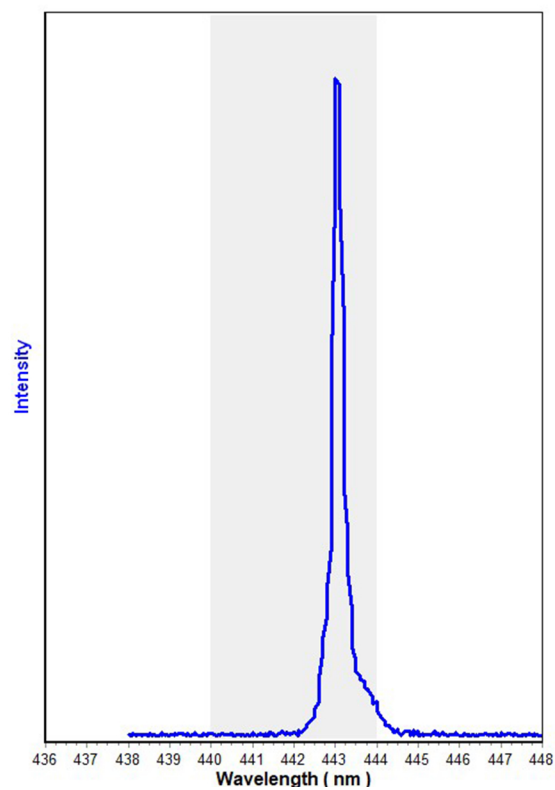
*Please notice that the laser diode is designate to operate at room temperature (20 deg. C). The temperature increase leads to the shorter lifetime and lower output current.

TG 442-S

Optical output power

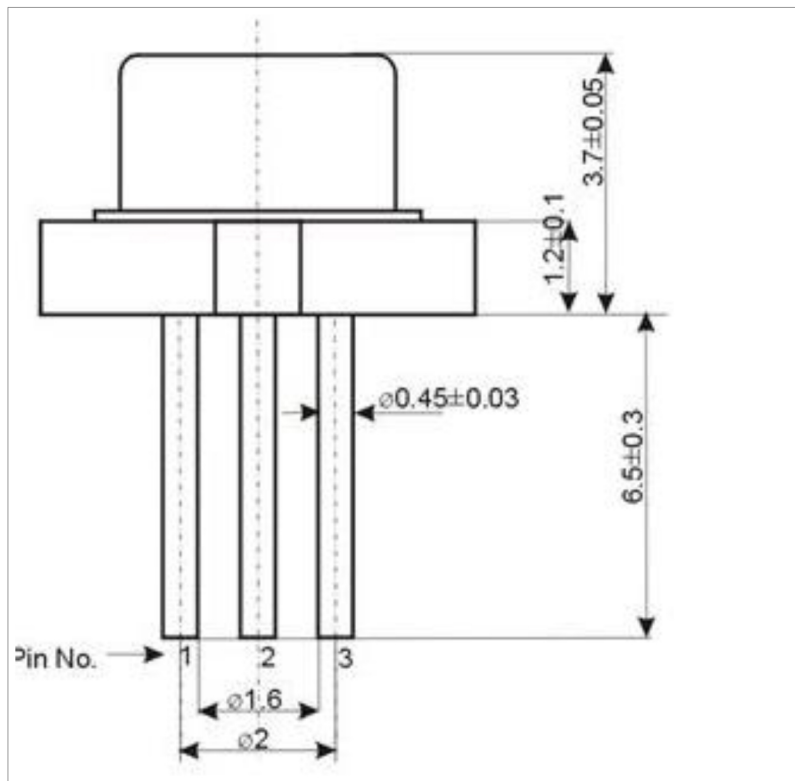


Wavelength



TG 442-S

Physical dimensions



Electrical connections

Laser is connected to isolated pins “1” and “3”. Pin “2” is connected with the case and not active.

