

# OEM-STYLE CASELESS DIODE MODULES

Space Saving no case design  
Fixed or adjustable focus options  
Integrate into your product  
More options available, call us.

| Platform                | (X = 1-9) | 230X-Y-ZZZ                 |     |     |     |
|-------------------------|-----------|----------------------------|-----|-----|-----|
| Optical                 |           |                            |     |     |     |
| Power Output (mW)       | Y         | 1                          |     | 3   |     |
| Wavelength (nm)         | Z         | 635                        | 650 | 635 | 650 |
| Lens                    |           | X = #1-8 plastic, #9 glass |     |     |     |
| Beam Shape              |           | X = #1-8 ellipse, #9 line  |     |     |     |
| Beam Divergence (mrad)  |           | <2                         |     |     |     |
| Electrical              |           |                            |     |     |     |
| Operating Current (mA)  |           | <50                        |     |     |     |
| Operating Voltage (VDC) |           | 3*                         |     |     |     |
| Environmental           |           |                            |     |     |     |
| Operating Temps (°C)    |           | -10 to +30                 |     |     |     |
| Storage Temps (°C)      |           | -40 to +50                 |     |     |     |

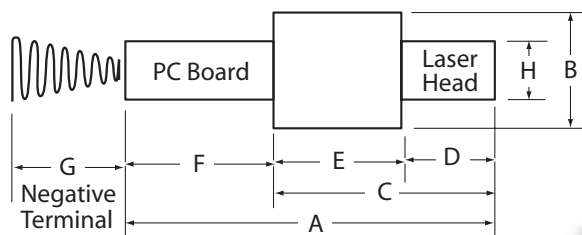
\*4.5 Volt is also available for all models.

**Electrical considerations:** For heat sink considerations, the laser diode module body is positively charged. Please keep this in mind when designing your device.

Models 2301, 2305, 2306 have a momentary contact switch on the printed circuit board.

Models 2301, 2304, 2305, 2306 have a negative terminal spring and positive ground for the brass body (details D and E). Typically the spring is used to hold a battery in place, and power the module.

Models with wire leads: black supply lead (-); red supply lead (+).



| mm   | A    | B    | C    | D   | E   | F    | G | H   |
|------|------|------|------|-----|-----|------|---|-----|
| 2301 | 32.5 | 6.5  | 13.5 |     |     | 19   | 4 |     |
| 2302 | 26   | 8.6  | 11.5 | 8   | 3.5 | 14.5 |   | 6.5 |
| 2303 | 18   | 9.1  |      |     |     |      |   |     |
| 2304 | 18.5 | 10.5 | 13.5 | 9.5 | 4   | 4    | 5 | 8.5 |
| 2305 | 34   | 10.5 | 17   | 10  | 7   | 17   | 9 | 8.7 |
| 2306 | 33.5 | 12.1 | 17   | 10  | 7   | 16.5 | 8 | 8.7 |
| 2307 | 35   | 12.1 | 17   | 10  | 7   | 8    |   | 8.7 |
| 2308 | 29   | 11   | 18.5 |     |     | 10.5 |   |     |
| 2309 | 30   | 10.5 |      |     |     |      |   |     |

