

## Laser Power Detector

### FEATURES

- Highly sensitive thermal detector
- 100  $\mu$ W to 5 W power range
- Sensitive to all wavelengths from UV to MIR
- Compact design
- Linear power response
- Attractive OEM pricing



gRAY B01-SC



gRAY B05-SC

Product Name	gRAYB01-SC	gRAYB05-SC
Article Number	A-044392	A-044580
Detector Type	Thermopile	Thermopile
Spectral Range [ $\mu$ m]	0.19 – 15	0.19 – 15
Sensing Area (a x b) [mm x mm]	4.4 x 4.4	10.0 x 10.0
Sensor Thickness (d) [mm]	0.5	0.5
Max. Power [W]	1 (additional cooling necessary by heat sink)	5 (additional cooling necessary by heat sink)
Power Resolution <sup>a</sup> [ $\mu$ W]	10	10
Min. Detectable Power [ $\mu$ W]	100	100
Max. Average Power Density [kW/cm <sup>2</sup> ]	1.5	1.5
Max. Energy Density <sup>b</sup> [J/cm <sup>2</sup> ]	0.125 (@ 1064 nm, 10 ns) 0.173 (@ 266 nm, 4.8 ns)	0.125 (@ 1064 nm, 10 ns) 0.173 (@ 266 nm, 4.8 ns)
Min. Sensitivity <sup>b</sup> (Z) [mV/W]	100	100
Temperature Dependence of Z [%/°C]	0.125	0.125
Rise Time (0-95%) [s]	1.1	1.1
Linearity with Power [ $\pm$ %]	0.2	0.2
Operating Temperature Range Min / Max [°C]	-50 / 150	-50 / 150
Cooling Method	Conduction, convection	Conduction, convection
Electrical Connection (Solder Pads)	Bottom & top side	Bottom & top side

<sup>a</sup> Experimentally evaluated values under optimal steady state conditions. Limited by noise of measurement device.

<sup>b</sup> Carried out at certified LIIDT test laboratory.

