

Silicon Photodetectors

EOT's Silicon Photodetectors contain PIN photodiodes that utilize the photovoltaic effect to convert optical power into an electrical current. When terminated into 50Ω into an oscilloscope, the pulsewidth of a laser can be measured. When terminated into 50Ω into a spectrum analyzer, the frequency response of a laser can be measured. EOT's Silicon Photodetectors come with their own internal bias supply consisting of long-life lithium cells. Plugging a coaxial cable into the photodetector's BNC output connector and terminating into 50Ω at the oscilloscope or spectrum analyzer is all that is required for operation.



Applications:

- Monitoring the output of Q-switched lasers
- Monitoring the output of mode-locked lasers
- Monitoring the output of externally modulated CW lasers
- Time domain and frequency response measurements

Features:

- Silicon photodetectors can be ordered with optional wall plug-in power supply
- Available with optional SMA input receptacle

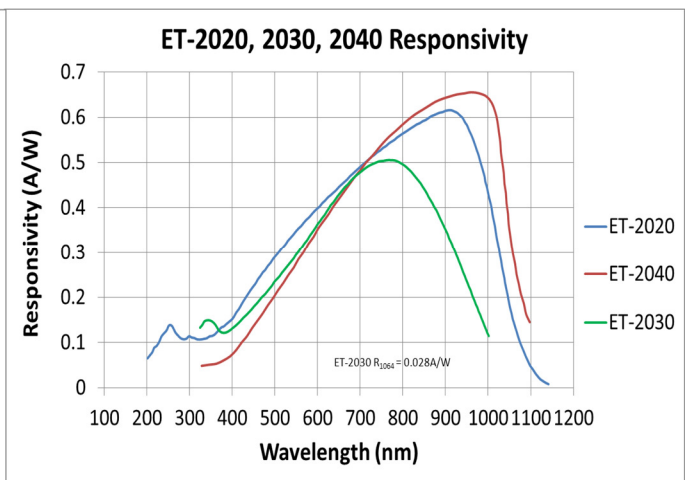
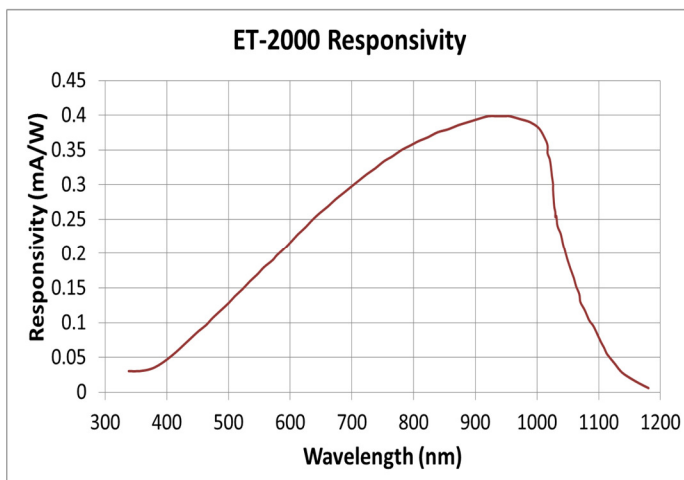
Specifications^a:

Part No. (Model)	120-10000-0001 ^b (ET-2000)	120-10006-0001 ^{bc} (ET-2020)	120-10011-0001 ^b (ET-2030)	120-10028-0001 ^b (ET-2040)
Rise Time/Fall Time	<350ps/<350ps	<1.5ns/<1.5ns	<300ps/<300ps	<30ns/<30ns
Responsivity at 830nm	0.12mA/W	0.6A/W	0.47A/W	0.6A/W
Power Supply (VDC)	3	24	9	24
Bandwidth	>1.0GHz	>200MHz	>1.2GHz	>25MHz
Active Area Diameter	110μm x 55μm	2.55mm	0.4mm	4.57mm
Dark Current (nA)	<0.11	<10	<0.1	<10
Acceptance Angle (1/2 angle)	20°	50°	30°	60°
Noise Equivalent Power (pW/√Hz)	<0.15	<0.09	<0.01	<0.09
Maximum Linear Rating	CW current: 20mA Energy per 10ns pulse: 20μJ	CW current: 2.5mA Pulse current: 15mA	CW current: 3mA Pulse current: 3mA	CW current: 2mA Optical input: 3mW
Mounting (Tapped Holes)	8-32 or M4	8-32 or M4	8-32 or M4	8-32 or M4
Output Connector	BNC	BNC	BNC	BNC

^a Product specifications and pricing subject to change without notice.

^b RoHS compliant.

^c Optional FC available.



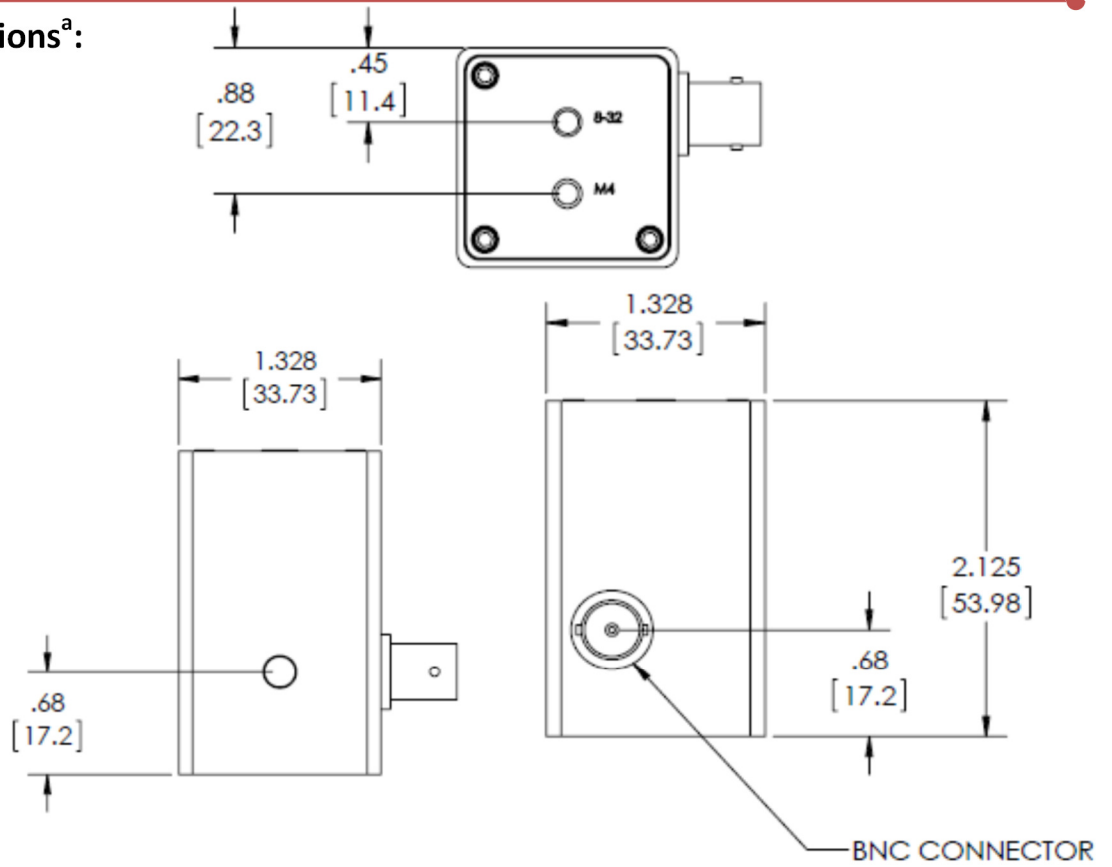
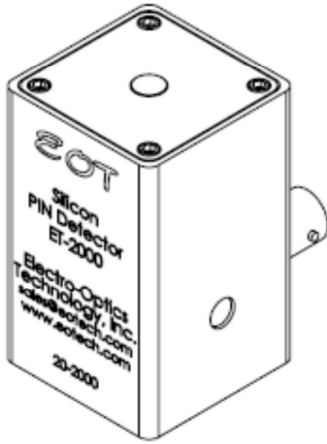
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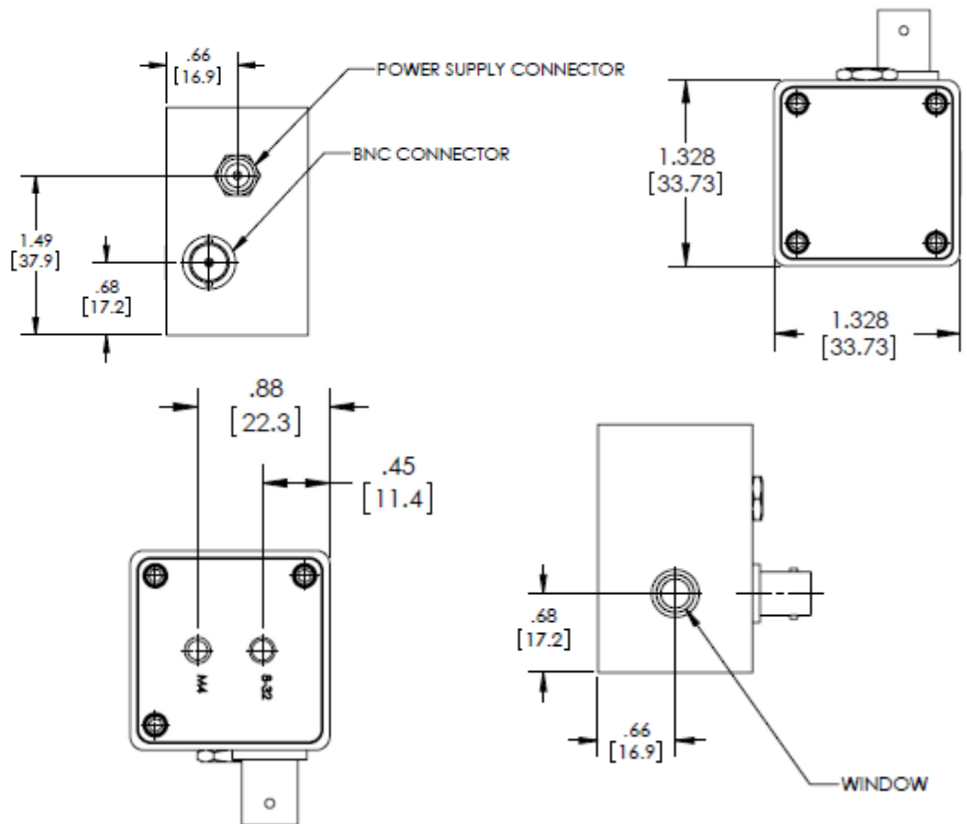
Document 002-00040-0001 (03/17/2014)

ET-2000, 2030 Dimensions^a:



^a All dimensions in inches

ET-2020, 2040 Dimensions^a:



^a All dimensions in inches

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