

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 500 into an oscilloscope, the pulsewidth of a laser can be measured. When terminated into 500 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 500 at the oscilloscope or spectrum analyzer is all that is required for operation.

Applications:

Features:

Silicon photodetectors can be ordered with

optional wall plug-in power supply

- 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

Specifications^a:

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Part No. (Model)	120-10000-0001 (ET-2000)	120-10011-0001 (ET-2030)	120-10028-0001 (ET-2040)	120-10133-0001 (ET-2060)	120-10134-0001 (ET-2070)
Rise Time/Fall Time	<350ps/<350ps	<300ps/<300ps	<30ns/<30ns	<320ps/<320ps	3ns/3ns
Responsivity at 830nm	0.03A/W	0.47A/W	0.6A/W	0.47A/W	0.56A/W
Power Supply	3VDC	9VDC	24VDC	9VDC	24VDC
Bandwidth	>1.0GHz	>1.2GHz	>25MHz	>1.1GHz	>118MHz
Active Area Diameter	110μm x 55μm	0.4mm	4.57mm	0.4mm	2.55mm
Dark Current	<0.11nA	<0.1nA	<10nA	<0.1nA	<10nA
Acceptance Angle (1/2 angle)	20°	10°	60°	N/A ^b	50°
Noise Equivalent Power	<0.15pW/√Hz	<0.01pW/√Hz	<0.09pW/√Hz	<0.01pW/√Hz	<0.10pW/√Hz
Maximum Linear Rating	CW current: 20mA Energy per 10ns pulse: 20µJ	CW current: 3mA Pulse current: 3mA	CW current: 2mA Optical input: 3mW	CW current: 3mA Pulse current: 3mA	CW current: 2.5mA Pulse current: 15mA
Mounting (Tapped Holes)	8-32 or M4	8-32 or M4	8-32 or M4	8-32 or M4	8-32 or M4
Output Connector	BNC	BNC	BNC	BNC	BNC

^a Product specifications are subject to change.

^b Includes FC receptacle

Note: All products are RoHS compliant.









^a All dimensions in inches



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