

• Description

SemeaTech's 3cc Cesium Iodine Gamma Sensor consists of a cesium iodide crystal, a photodiode, and a high-gain preamplifier that can be used to measure X and γ radiation from 50keV to 3MeV. It features high sensitivity and an instant response time (of about a second) to a very minor change of X and γ (0.01 μ Sv/h).

The sensor is housed in a 45x24x18 \pm 0.5mm metal housing with a cable of approx, 55mm as the connection interface. The connector is a 4-pin MOLEX PicoBlade 1.25mm (.049") connector (reference Molex connector, part No.51021-0400). Pin assignment are shown below:

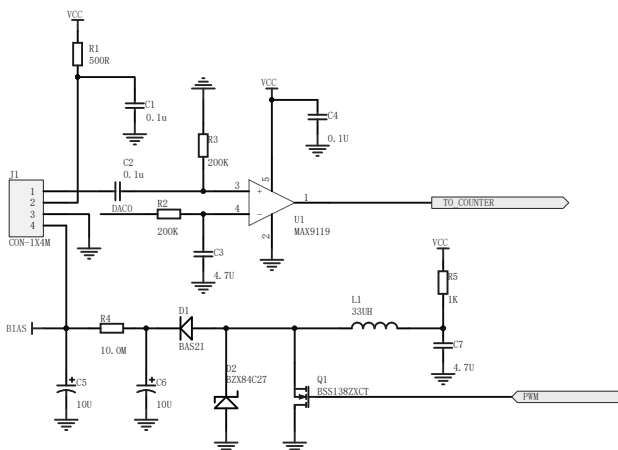
• Electrical Characteristics

Output:	A full width at half maximum of appr. 60 μ s quasi-Gaussian pulse
Power:	2.7 V ~ 3.3 V
Bias:	30 V recommended, maximum 50 V
Noise Level:	80 mV \pm 15 mV at room temperature

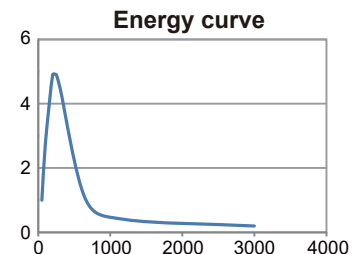
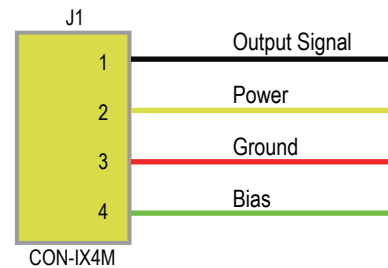
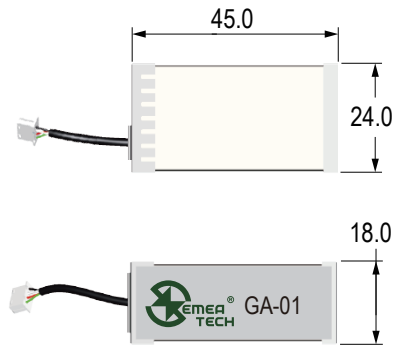
• Detection Performance

Energy Detection Range:	50 keV ~ 3 MeV
Response Time:	1 s
Signal Amplitude:	0.9 V \pm 0.1 V @ 662 keV
Detection Efficiency:	25,000 \pm 20%count/ μ Sv @ 662 keV
Noise Temperature Effect:	Refer to PIN diode characteristics
Working Temperature:	-20°C ~ 50°C
Life Span:	5 years
Upper Limit of Measurable Dose Rate:	20 mRem/h
Static Current:	< 600 μ A @ 3.3 V
Warranty:	15 months

• Application Circuit Reference



• Product Dimensions



All dimensions in mm

All tolerances \pm 0.20mm unless otherwise stated