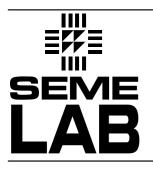
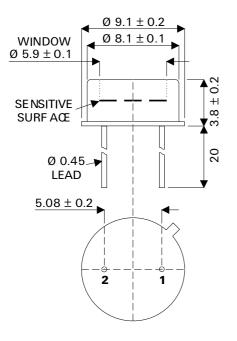
# SMP600G-EM



MECHANICAL DATA Dimensions in mm.



### TO-39 Package

Pin 1 – Anode

Pin 2 – Cathode & Case

## P.I.N. PHOTODIODE

## FEATURES

- HIGH SENSITIVITY
- VISIBLE AND UV BLIND
- EXCELLENT LINEARITY
- LOW NOISE
- WIDE SPECTRAL RESPONSE
- RG850 INTEGRAL OPTICAL FLTER
- TO39 HERMETIC METAL CAN PACKAGE
- EMI SCREENING MESH AVAILABLE

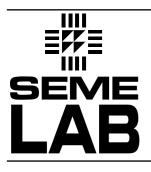
## DESCRIPTION

The SMP600G-EM is a Silicon P.I.N. photodiode incorporated in a hermetic metal can package. The electrical terminations are via two leads of diameter 0.018" on a pitch of 0.2". The can structure incorporates an optical filter that only transmits infra-red light. The cathode of the photodiode is electrically connected to the package.

The larger photodiode active area provides greater sensitivity than the SMP550 range of devices, with a slight reduction in speed. Inherent in the device geometry is a reduction in the receiving angle. The photodiode structure has been optimised for high sensitivity, light measurement applications. The metal can and optional screening mesh ensure a rugged device with a high degree of immunity to radiated electrical interference.

## **ABSOLUTE MAXIMUM RATINGS** (T<sub>case</sub> = 25°C unless otherwise stated)

Operating temperature range	-40°C to +70°C
Storage temperature range	-45°C to +80°C
Temperature coefficient of responsively	0.35% per °C
Temperature coefficient of dark current	x2 per 8°C rise
Reverse breakdown voltage	60V

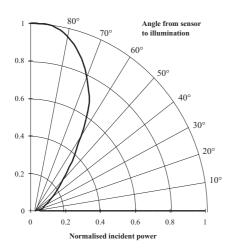


## SMP600G-EM

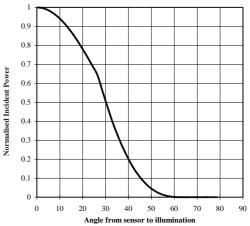
## CHARACTERISTICS (Tamb=25°C unless otherwise stated)

Characteristic	Test Conditions.		Min.	Тур.	Max.	Units
Responsively	λ at 900nm		0.45	0.55		A/W
Active Area				15		mm <sup>2</sup>
Dark Current	E = 0 Dark	1V Reverse		2	6	nA
	E = 0 Dark	10V Reverse				
Breakdown Voltage	E = 0 Dark	10µA Reverse	60	80		V
Capacitance	E = 0 Dark	0V Reverse		90		pF
	E = 0 Dark	20V Reverse		25		
Rise Time	30V Reverse		12			ns
	50Ω					115
NEP	900nm			20x10 <sup>-14</sup>	0.45	W/√Hz

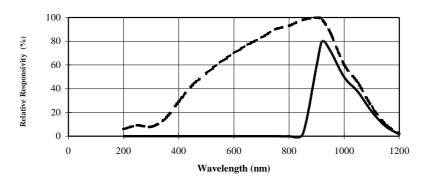
#### **Directional characteristics**



### **Directional Characteristics**



#### **Spectral Response**



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