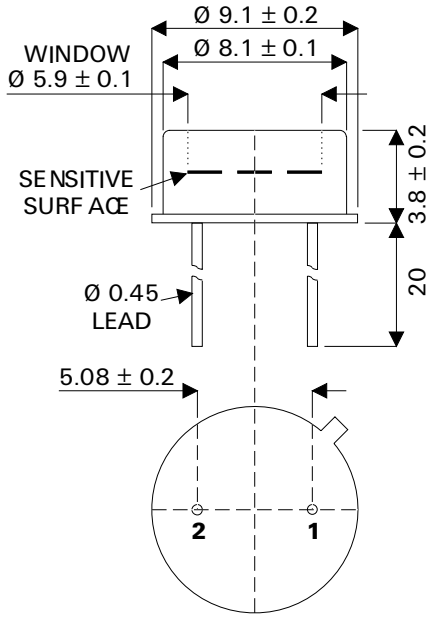
SMP600G-EL

MECHANICAL DATA
Dimensions in mm.

P.I.N. PHOTODIODE



TO-39 Package

Pin 1 – Anode Pin 2 –Cathode & Case

FEATURES

- **HIGH SENSITIVITY**
- **EYE RESPONSE DETECTION**
- **EXCELLENT LINEARITY**
- **LOW NOISE**
- **WIDE SPECTRAL RESPONSE**
- **BG18 INTEGRAL OPTICAL FILTER**
- **TO39 HERMETIC METAL CAN PACKAGE**
- **EMI SCREENING MESH AVAILABLE**

DESCRIPTION

The SMP600G-EL 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 centre diameter of 0.2". The can structure incorporates an photoptic response optical filter with peak transmission at 510nm. 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, asymmetric light measurement applications. The metal can, isolated photodiode and optional screening mesh ensure a rugged device with a high degree of immunity to conducted and radiated electrical interference.

ABSOLUTE MAXIMUM RATINGS (T_{case} = 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

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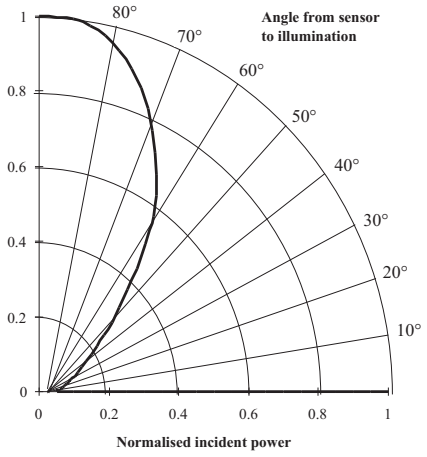
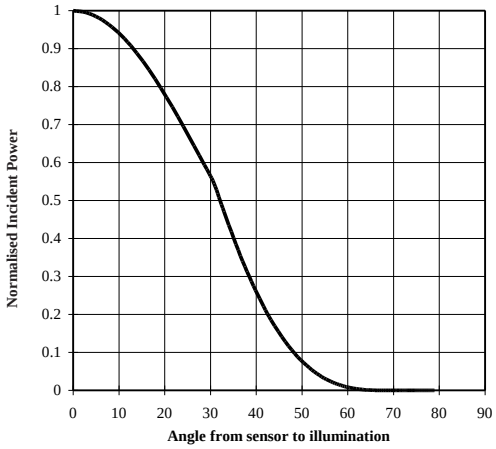
CHARACTERISTICS (T_{amb}=25°C unless otherwise stated)

Characteristic	Test Conditions.	Min.	Typ.	Max.	Units
Responsively	λ at 900nm	0.45	0.55		A/W
Active Area			15		mm^2
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 50Ω		12		ns
NEP	900nm		$20x10^{-14}$	0.45	W/√Hz

Directional characteristics



Directional Characteristics



Spectral Response