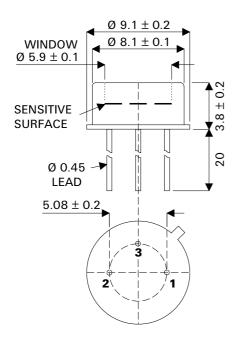


SMP600G-FJ

MECHANICAL DATA

Dimensions in mm.



TO-39 Package

Pin 1 – Anode Pin 2 – Cathode Pin 3 – Case

P.I.N. PHOTODIODE

FEATURES

- HIGH SENSITIVITY
- PHOTODIODE ISOLATED FROM PACKAGE
- EXCELLENT LINEARITY
- LOW NOISE
- WIDE SPECTRAL RESPONSE
- INTEGRAL OPTICAL FILTER OPTION note 1
- TO39 HERMETIC METAL CAN PACKAGE
- EMI SCREENING MESH AVAILABLE

Note 1 Contact Semelab Plc for filter options

DESCRIPTION

The SMP600G-FJ 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 permits a wide range of optical filter options. The photodiode is electrically isolated from the package, which has a separate earth lead.

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, 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
	1

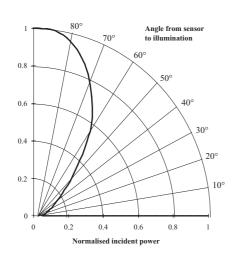


SMP600G-FJ

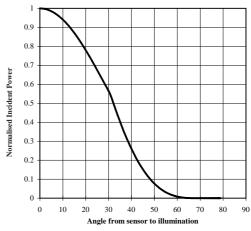
CHARACTERISTICS (T_{amb}=25°C unless otherwise stated)

Characteristic	Test Conditions.		Min.	Тур.	Max.	Units
Responsively	λ at 900nm		0.45	0.55		A/W
Active Area				15		mm²
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			12		113
NEP	900nm			20x10 ⁻¹⁴	0.45	W/√Hz

Directional characteristics



Directional Characteristics



Spectral Response

