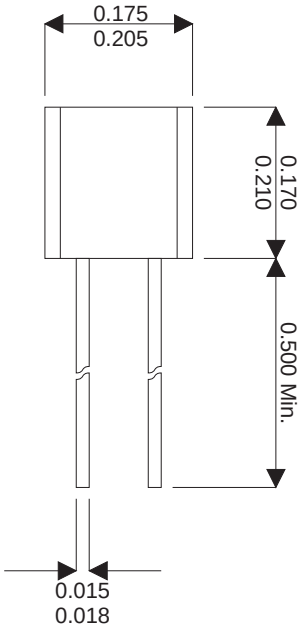
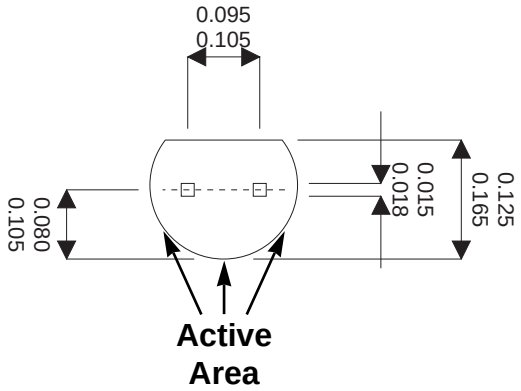
SMP400G-X2

P.I.N. PHOTODIODE

MECHANICAL DATA
Dimensions in inches.





TO-92 Package

FEATURES

- **WATER CLEAR PLASTIC**
- **WIDE SPECTRAL RESPONSE**
- **0.1” (2.54mm) LEAD SPACING**
- **LOW DARK CURRENT**

DESCRIPTION

The SMP400G-X2 is a silicon PIN photodiode which is incorporated in a colourless plastic package. The terminals are solder tabs with 0.1” (2.54mm) spacing. Due to its design the diode can be assembled vertically on PC board.

Arrays can be realised by multiple arrangements. This versatile photo detector can be used as a diode as well as a voltage cell.

The signal / noise ratio is particularly favourable , even at low illuminances.

The PIN photodiode is outstanding for low junction capacitance , high cut off frequency and short switching time. It is particularly suitable for IR sound transmission and remote control.

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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SMP400G-X2

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			0.62		mm^2
Dark Current	E = 0 Dark 1V Reverse		0.1	1.0	nA
	E = 0 Dark 10V Reverse		0.5	2.5	
Breakdown Voltage	E = 0 Dark 10µA Reverse	60	80		V
Capacitance	E = 0 Dark 0V Reverse		8	12	pF
	E = 0 Dark 20V Reverse		1.5	2.5	
Rise Time	30V Reverse 50Ω		4		ns
NEP	900nm		7.2		W/√Hz