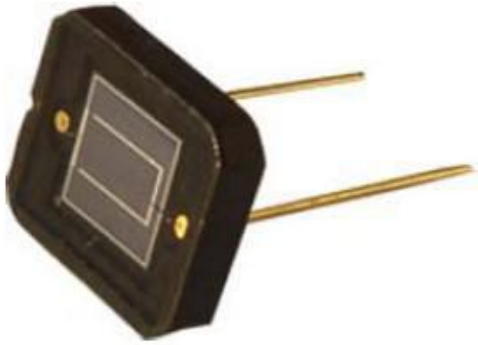
2DU6

Description

The 2DU6 is a high speed and high sensitive PIN photodiode in a miniature flat plastic package. Its top view construction makes it ideal as a low cost replacement of TO–5 devices in many applications. Due to its water clear epoxy the device is sensitive to visible and infrared radiation. The large active area combined with a flat case gives a high sensitivity at a wide viewing angle.

Features

Large radiant sensitive area (A=36 mm2) Wide angle of half sensitivity φ = ± 65° High photo sensitivity
Suitable for visible and near infrared radiation
Windowless package



Applications

High speed photo detector
ArF excimer laser detection
Various UV detection

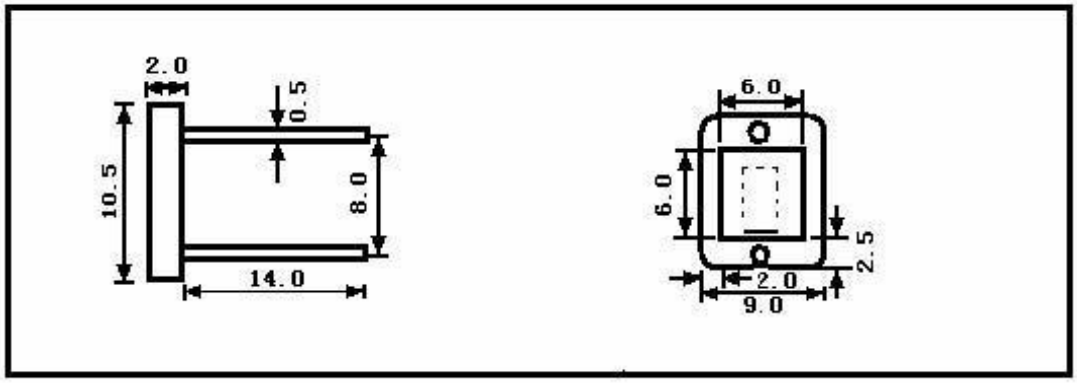
Absolute maximum ratings (Ta=25 °C)

Parameter	Symbol	Value	Unit
Reverse voltage	Vr Max.	30	v
Operating temperature	Topr	-20 to +60	°C
Storage temperature	Tstg	-55 to +80	°C

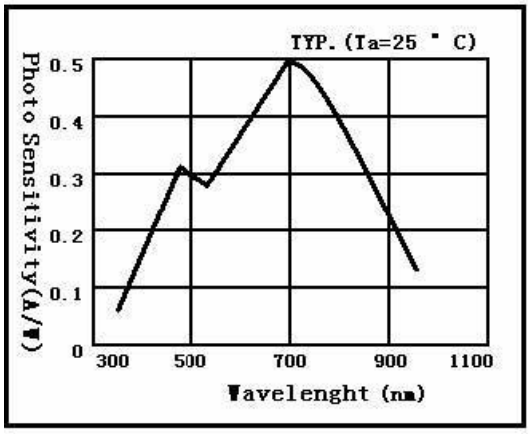
Electrical and optical characteristics (Ta=25 °C)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Spectral response range	λ		-	320 to 1100	-	nm
Peak sensitivity wavelength	λp		-	700	-	nm
Photo sensitivity	S	Isc=32μA	0.3	0.42	-	mA/mW
Dark current	ID	Vr=0.01V	-	0.1		nA
Terminal capacitance	Ct	Vr=0 V, f=10 kHz	-	4	-	nF
Rise time	tr	Vr=0 V, RL=1 kΩ 10 to 90 %	-	9	-	μs

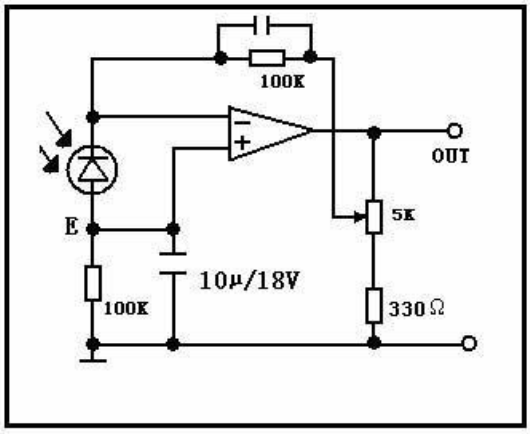
Dimensional outline (unit: mm)



Spectral Response



˜Circuit



Handling precautions Handle the photodiodes in a clean room.

Never touch the photodiode chip surface and wire bonding. Wear dust-proof gloves and dust-proof mask.
Use an air dust cleaner to blow away dust and foreign matter on the photodiode chip surface.
Do not clean the photodiodes by any method other than air blow.