



**UV - Photodetector  
with integrated amplifier**

**JIC 317  
JIC 318  
JIC 319**

- characteristics :**
- ◆ spectral range 210 ... 390 nm
  - ◆ active area 0,055 mm<sup>2</sup>
  - ◆ responsivity, decadic staggering 1,2/12/120 mV/nW
  - ◆ extra sensor pin for external adjustment of gain and bandwidth
  - ◆ single supply voltage
  - ◆ sensor assembly isolated to ground
  - ◆ hermetically welded TO5-metal/glass package
  - ◆ components are in conformity with RoHS and WEEE

- applications :**
- ◆ selective UV-measurement
  - ◆ control of sterilization lamps
  - ◆ flamedetection and flamecontrol
  - ◆ control of irradiancy in varnish and adhesive hardening

**absolute maximum ratings:**

operating voltage	+15	V
operating temperature range	-25 °C ... +85	°C
storage temperature range	-40 °C ... +100	°C
soldering temperature (5s)	300	°C

**technical data :**

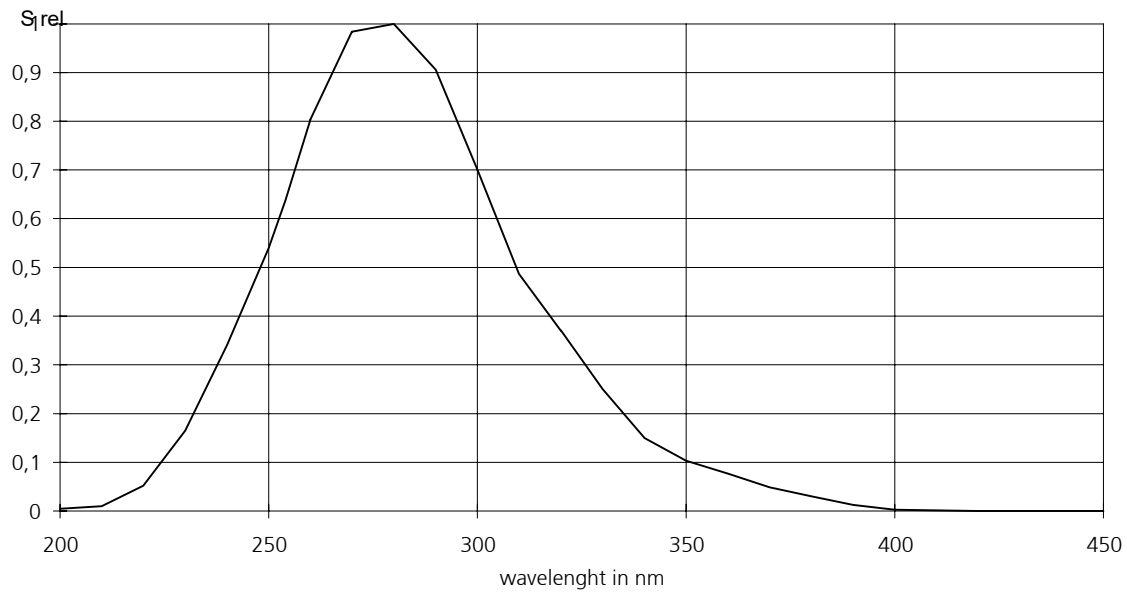
common test conditions, as not otherwise specified: T<sub>A</sub> = 25 °C, V<sub>S</sub> = +5 V  
typ. values, maximum values in brackets

parameters	test condition	JIC 317	JIC 318	JIC 319	unit
feed back resistor		10	100	1.000	MΩ
dark offset voltage	E = 0 lx	± 1	± 2	± 3	mV
noise voltage	B = 1 kHz	1			mV <sub>rms</sub>
max. of spectral responsivity	λ = 280 nm	1,2	12	120	mV/nW
risetime		20	100	700	μs
bandwidth	- 3 dB	15	3	0,5	kHz
saturation voltage	R <sub>L</sub> = 2 kΩ	+ 4,68 (+ 4,6)			V
shortcurrent		± 30			mA
operation voltage		+ 2,7...+ 13,2			V
current consumption		550 (660)			μA

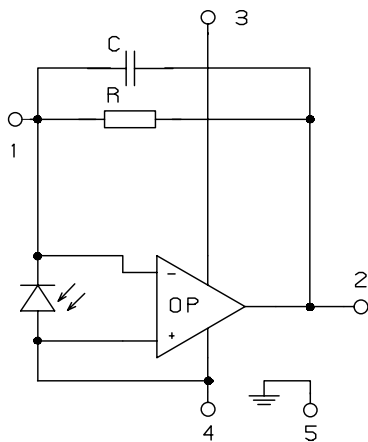
**D  
A  
T  
A  
  
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T**

# JIC 317, 318, 319

## relative spectral responsivity

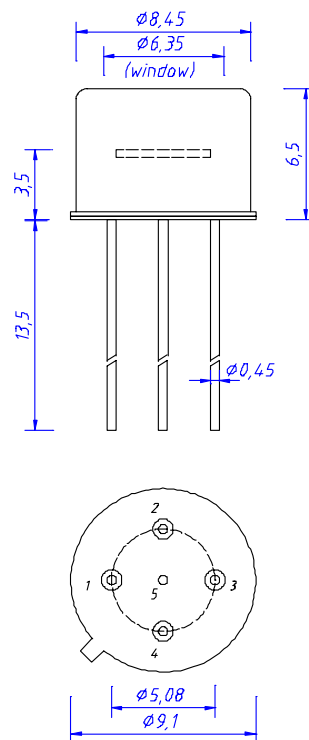


## pin configuration



- 1 R<sub>f</sub>
- 2 Out
- 3 V<sub>s</sub>
- 4 GND
- 5 Case

## package dimensions



## application hints:

- If an external resistor for reduction of gain is used, please make sure that length of connectors is as short as possible to reduce noise and capacitive interference.
- If internally adjusted gain is used only, please cut pin „1“.