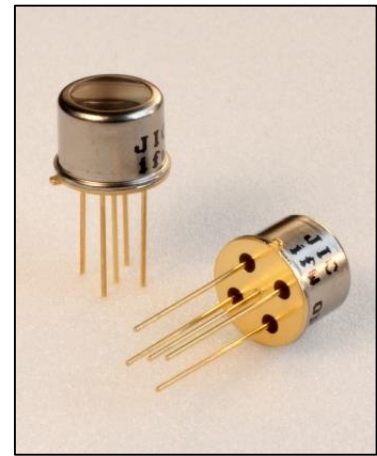


Characteristics :

- ◆ integrated spectral filter for UVA-range
- ◆ custom filter characteristics on request
- ◆ active area: 0,22 mm²
- ◆ decadic staggering of responsivity: 0,6/6/60 mV/nW
- ◆ extra sensor pin for external adjustment of gain bandwidth
- ◆ single supply voltage
- ◆ sensor assembly isolated from case
- ◆ hermetically welded TO5-metal/glass package
- ◆ RoHS und WEE conform

**Applications :**

- ◆ selective measurement of the UVA region
- ◆ solar UV-index measurements
- ◆ control of UV-lamps

Absolute Maximum Ratings :

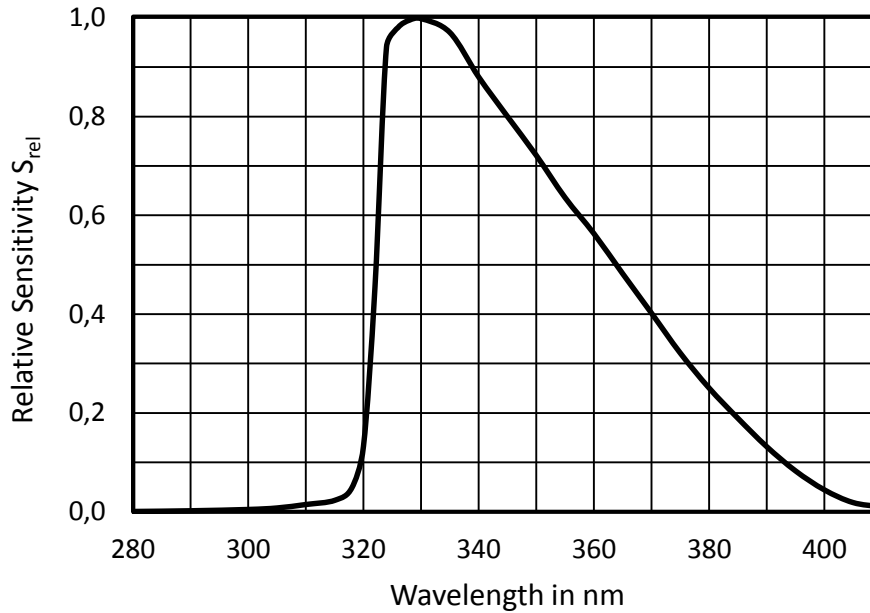
- ◆ supply voltage 5,5 V
- ◆ working temperature - 25 °C ... 85 °C
- ◆ storage temperature - 40 °C ... 100 °C
- ◆ soldering temperature (5s) 300 °C

Technical Specifications :

Parameter	Test conditions	JIC137A	JIC138A	JIC139A	Unit
Transimpedance		10	100	1.000	MΩ
dark offset voltage	E = 0 lx	± 1	± 2	± 3	mV
noise voltage	B = 1 kHz	1			mV _{rms}
max. spectral responsivity S_{max}	$\lambda = 330$ nm	0,6	6	60	mV/nW
rise time		30	150	600	μs
bandwidth	- 3 dB	10	2	0,5	kHz
saturation voltage	R _L = 2 kΩ	+ 4,95 (+ 4,8)			V
short circuit current		± 50			mA
supply voltage		+ 2,7 ... + 5			V
current consumption		750 (1100)			μA

common test conditions, if not specified otherwise: T_A = 25 °C, V_S = +5 V
typical values, maximum values in brackets

Relative Spectral Sensitivity

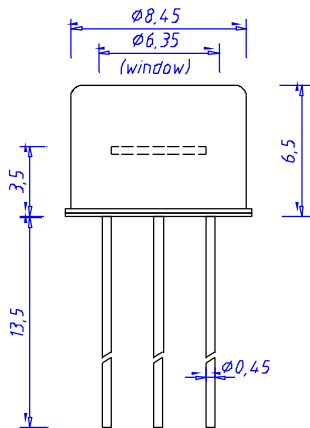


Spectral Specifications :

Parameter		Test conditions	JIC137A	JIC138A	JIC139A	Unit
spectral range	λ_{min}	$S = 0,1 * S_{max}$	315			nm
	λ_{max}		395			nm
wavelength of max. sensitivity λ_p		$S = S_{max}$	330			nm
max. spectral responsivity S_{max}		$\lambda = 330 \text{ nm}$	0,6	6	60	mV/nW
field of view		$S = 0,5 * S_{max}$	± 45			degree

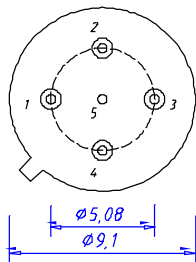
common test conditions, if not specified otherwise: $T_A = 25 \text{ }^\circ\text{C}$, typical values

Case Dimensions



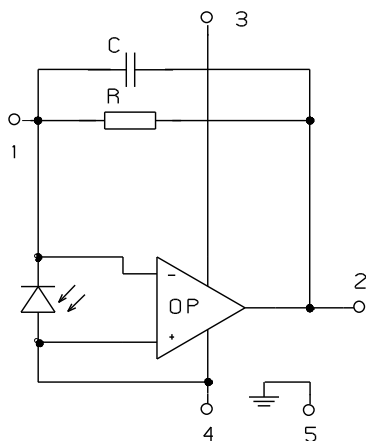
pin configuration:

- 1 R_F
- 2 Out
- 3 V_S
- 4 GND
- 5 Case



bottom view

Application Example



If an external resistor for gain reduction between pin "1" and "2" is used, it is good practice to keep the connector-length as short as possible to reduce noise incoupling and capacitive interference.

If the internally adjusted gain is used only, it is good practice to cut pin "1".