UV - Photodetector with integrated amplifier

JIC 127 C
JIC 128 C
JIC 129 C

caracteristics :

- integrated UV-C filter
- spectral range 210 to 280 nm
- active area 0.055 mm^2
- responsivity, decade staggered 0.8/8/80 mV/nW
- extra sensor pin for external adjustment of gain and bandwidth
- single supply voltage [nominal +5V]
- sensor assembly isolated from ground
- hermetically welded TO-5 metal/glass package

applications :

- selective UV-measurement
- control of sterilization lamps
- flame detection and control
- lamp control in coating and adhesive curing

absolute **maximum** ratings:

supply voltage	+5.5	V
working temperature range	-25 °C ... +85	°C
storage temperature range	-40 °C ... +100	°C
welding temperature (5sec)	300	°C

technical data :

common test conditions, as not otherwise specified: T_A = 25 °C, V_S = +5 V
typ. Values (maximum values in brackets)

parameter	test condition	JIC127C	JIC128C	JIC129C	unit
feedback resistor		10	100	1.000	MΩ
dark offset voltage	E = 0 lux	± 1	± 2	± 3	mV
noise voltage	B = 1 kHz	1			mV_{rms}
max. spectral responsivity	λ = 254 nm	0.6	6	60	mV/nW
risetime		20	100	700	µs
bandwidth	- 3 dB	15	3	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

DATA SHEET

rev. 02/2003

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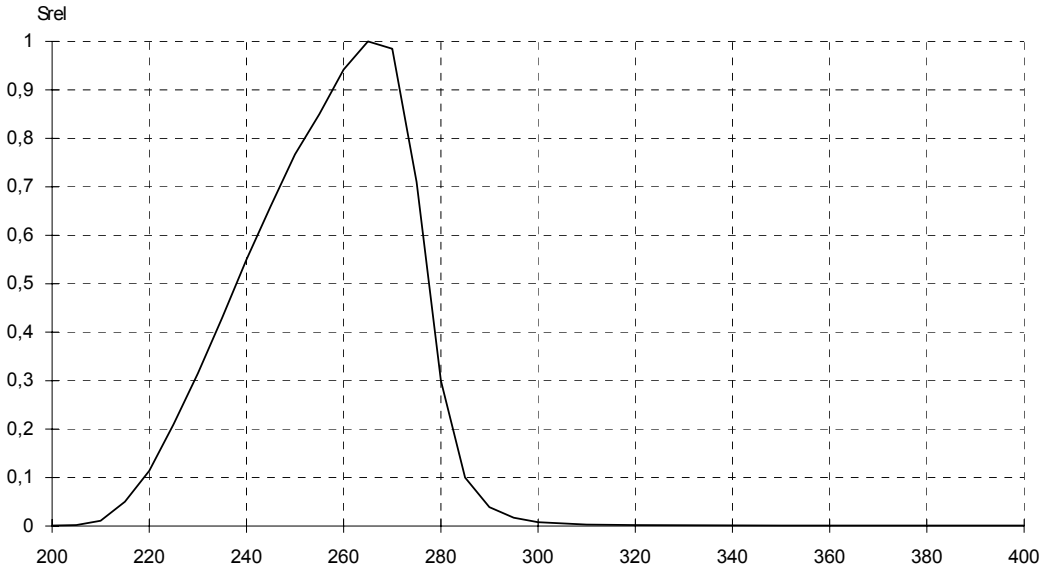
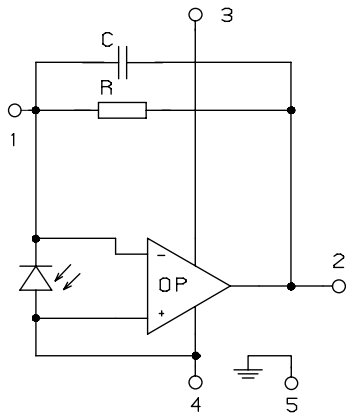
JIC 127 C, 128 C, 129 C

relative spectral responsivity

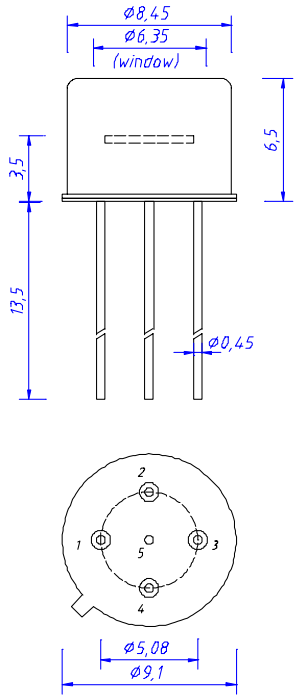


pin configuration

1 R_f
2 Out
3 V_S
4 GND
5 Case



package dimension



application hints:

- If an external resistor is used for reduction of gain, please make sure that length of the connections is as short as possible to reduce noise and capacative interference.

- If only internally adjusted gain is used, please cut pin 1.

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