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UV - Photodetector with integrated amplifier

JIC 117 A
JIC 118 A
JIC 119 A

characteristics :

- integrated UV-A filter
- spectral range 315... 395 nm
- active area 0,055 mm^2
- responsivity, decadic staggering 0,3/3/30 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 UV-A part of UV-lamps
- control of irradiancy in varnish and adhesive hardening

absolute maximum ratings:

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

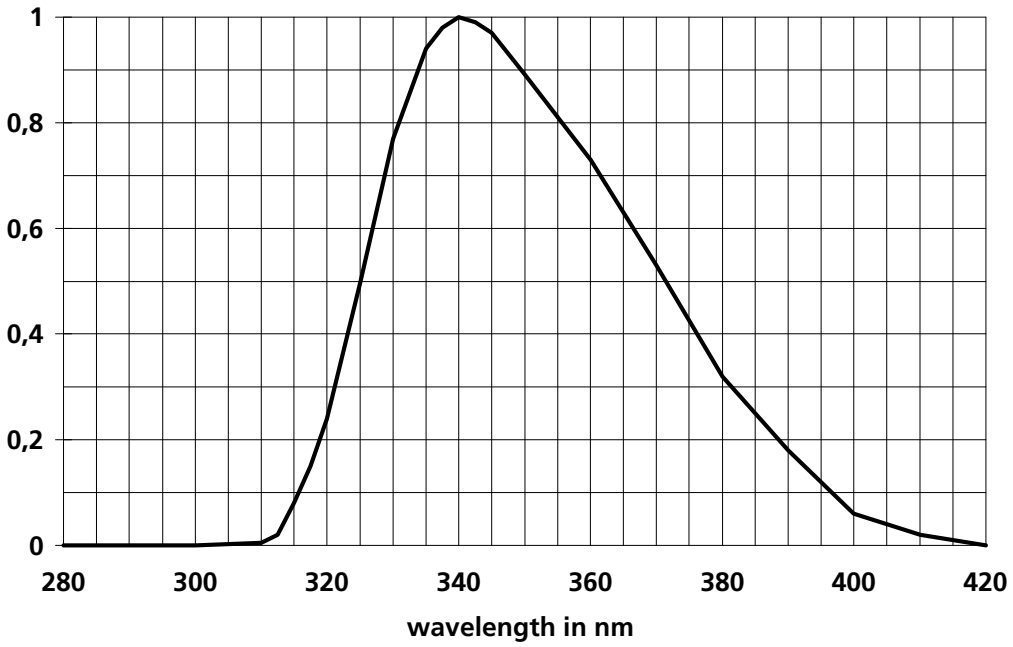
technical data :

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

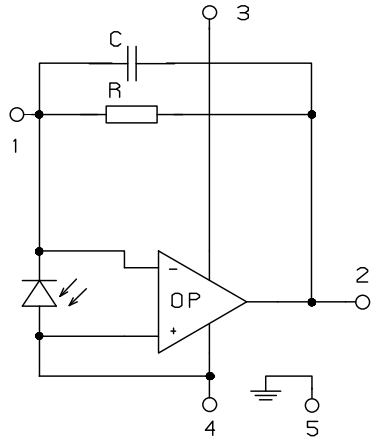
parameters	test condition	JIC117A	JIC118A	JIC119A	unit
feedback resistor		10	100	1.000	MΩ
dark offset voltage	E = 0 lx	± 1	± 2	± 3	mV
noise voltage	B = 1 kHz	1			mV_{rms}
max. spectral responsivity	λ = 340 nm	0,3	3	30	mV/nW
risetime		20	100	700	µs
bandwidth	- 3 dB	15	3	0,5	kHz
saturation voltage	R_L = 2 kΩ	+ 4,95 (+ 4,8)			V
short current		± 50			mA
supply voltage		+ 2,7...+ 5			V
current consumption		750 (1100)			µA

DATA SHEET

relative spectral responsivity

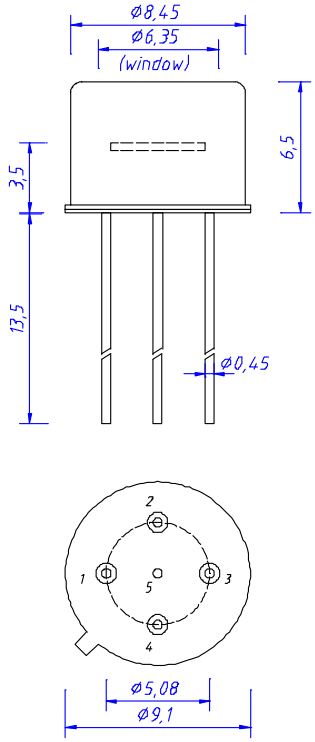


pin configuration



1 R_f
2 Out
3 V_S
4 GND
5 Case

package dimensions



application hints:

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

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