

preliminary data sheet

**characteristics :**

- ◆ active area: 0,25 mm<sup>2</sup>
- ◆ spectral range: 205 ... 355 nm
- ◆ high UV-responsivity: 0,18 A/W
- ◆ hermetically sealed TO-package
- ◆ option for isolated assembly of photodiode
- ◆ HT-option for extended working temperature range 150°C
- ◆ RoHS, REACH and WEEE conform

**applications :**

- ◆ optical measurements in UV-range
- ◆ control of sterilization lamps
- ◆ flame control


**absolute maximum ratings :**

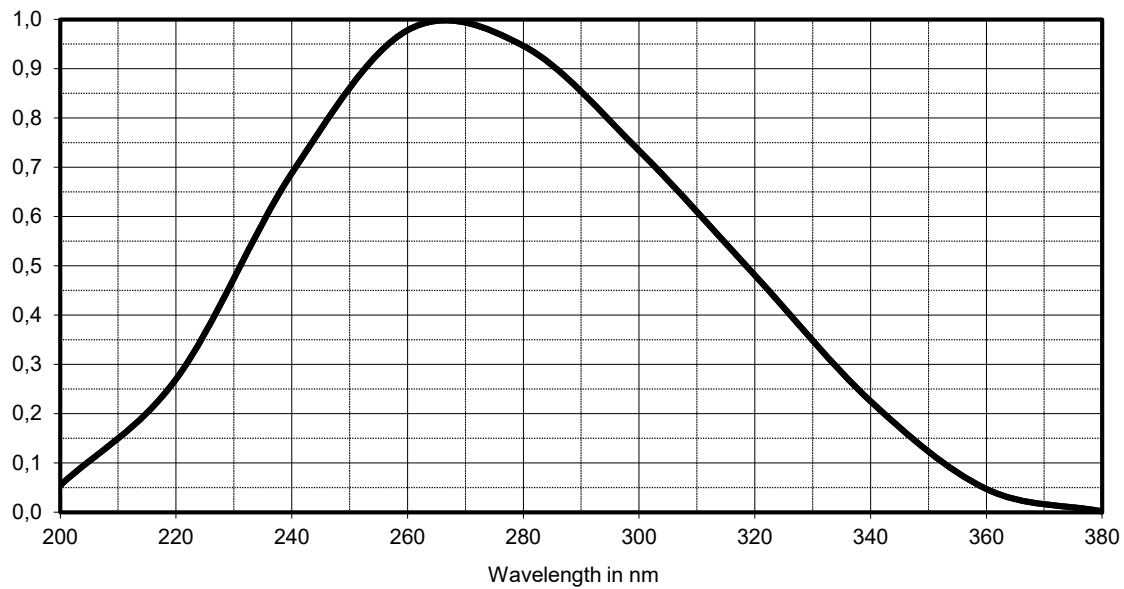
- ◆ reverse voltage 10 V
- ◆ operating temperature range - 40 °C ... 125 °C
- ◆ storage temperature range - 40 °C ... 125 °C
- ◆ soldering temperature (3s) 260 °C

**technical data :**

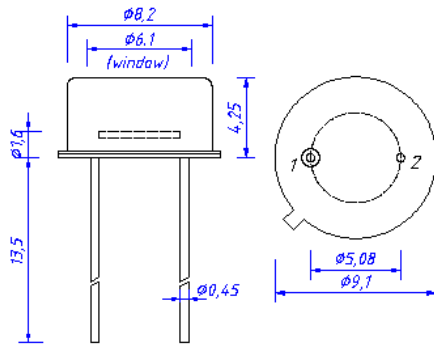
test conditions, as not otherwise specified: T<sub>A</sub> = 25 °C , V<sub>R</sub> = 0 V

Parameter	test conditions	JEA0,25 / JEA0,25I	JEA0,25S / JEA0,25ISZ	JEA0,25SS / JEA0,25ISSZ	unit
active area		0,55x0,55			mm <sup>2</sup>
spectral range					
λ <sub>min</sub>	S = 0,1 x S <sub>max</sub>	205			nm
λ <sub>max</sub>		355			nm
wavelength of peak response		265			nm
peak response S <sub>max</sub>	λ = 265 nm	0,18			A/W
spectral response S <sub>254nm</sub>	λ = 254 nm	0,16			A/W
dark current I <sub>R</sub>	V <sub>R</sub> = 1 V	10			fA
junction capacitance C	f = 10 kHz	75			pF
field of view (FOV)		±45	±35	±40	°
FOV for isolated assembly		±48	±38	±45	°
weight		0,8	0,3	0,3	g
package drawing for direct or isolated assembly		TO39 / TO39(i)	TO18 / TO18(i)	TO52 / TO52(i)	

relativ spectral responsivity

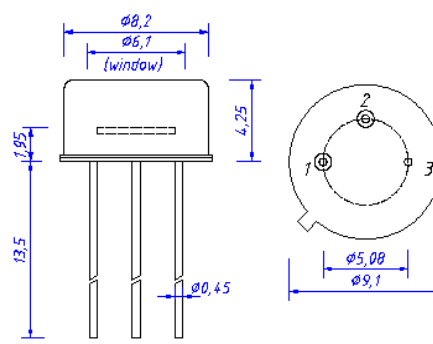


package dimension TO39



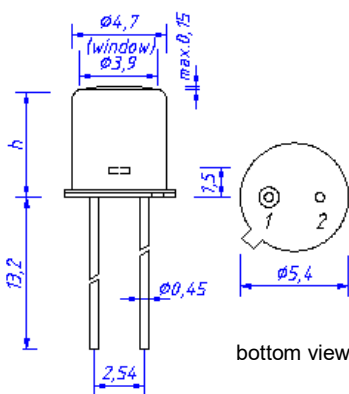
1 anode  
2 cathode+case

TO39(i)



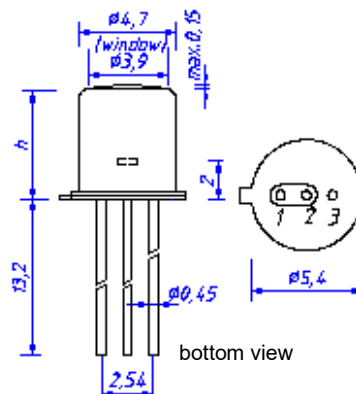
1 anode  
2 cathode  
3 case

package dimension TO18 / TO52



1 anode  
2 cathode+case

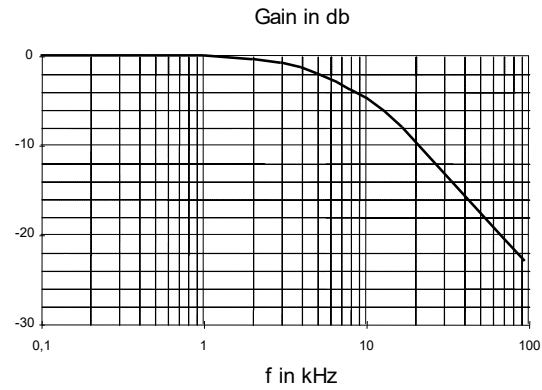
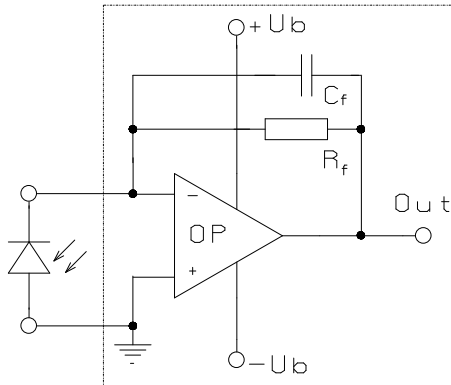
TO18(i) / TO52(i)



1 anode  
2 cathode  
3 case

TO18/TO18(i): h = 5,2 mm  
TO52/TO52(i): h = 3,7 mm

## application example



The application example shows a typical circuit  $R_f$  is responsible for the gain of the circuit  $C_f$  compensates the reverse junction capacitance of the photodiode and the input capacitance of the OP-amp. The exact value of  $C_f$  depends on  $R_f$ , used OP-amp and capacitance of the circuit. A typical value is 1pF. The chart shows dependence of amplitude of the application circuit with OP-amp = AD795,  $R_f = 10 \text{ M}\Omega$  and  $C_f = 1 \text{ pF}$ .