

**characteristics :**

- ◆ low cost SiC-photodiode
- ◆ active area: 0,05 mm<sup>2</sup>
- ◆ spectral range: 210 ... 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 :**

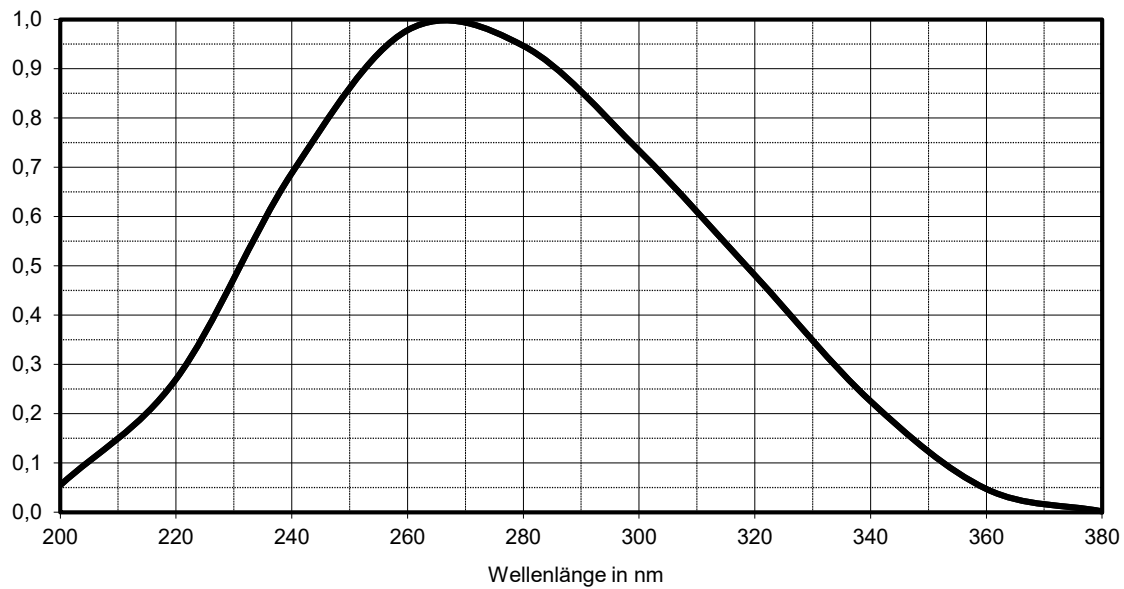
- ◆ reverse voltage 20 V
- ◆ operating temperature range - 40 °C ... 125 °C
- ◆ storage temperature range - 40 °C ... 125 °C
- ◆ soldering temperature (3s) 300 °C

**technical data :**

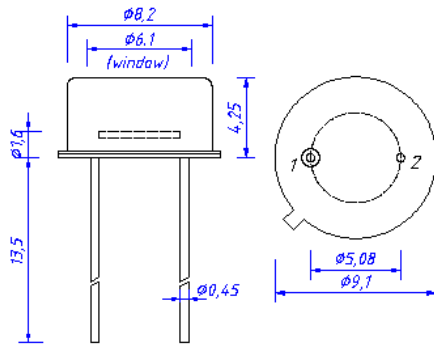
 test conditions, as not otherwise specified: T<sub>A</sub> = 25 °C , V<sub>R</sub> = 0 V

parameter	test condition	JEA0,05 / JEA0,05I	JEA0,05S / JEA0,05ISZ	JEA0,05SS / JEA0,05ISSZ	unit
active area		0,288x0,288			mm <sup>2</sup>
spectral range	S = 0,1 x S <sub>max</sub>				
λ <sub>min</sub>		210			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	30			pF
field of view (FOV)		±40	±27	±40	degree
FOV for isolated assembly		±44	±30	±48	degree
weight		0,8	0,3	0,3	gram
package drawing for direct or isolated assembly		TO39 / TO39(i)	TO18 / TO18(i)	TO52 / TO52(i)	

relativ spectral responsivity

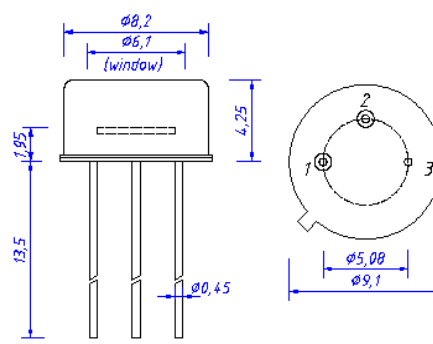


package dimension TO39



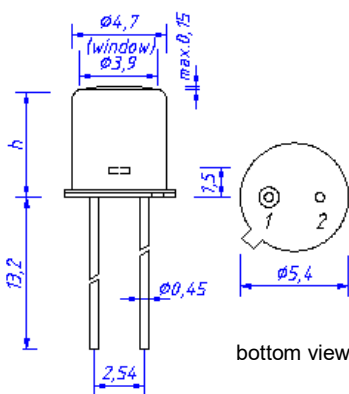
1 anode  
2 cathode+case

TO39(i)



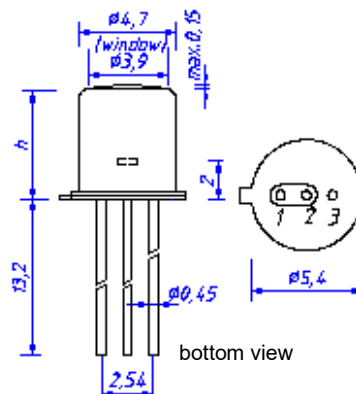
1 anode  
2 kathode  
3 case

package dimension TO18 / TO52



1 anode  
2 cathode+case

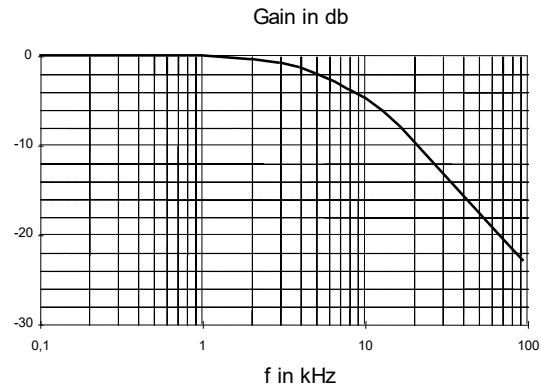
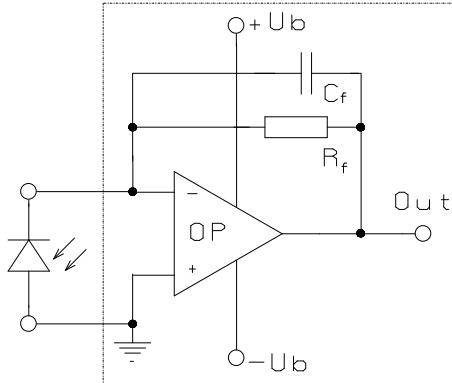
TO18(i) / TO52(i)



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 1 pF.

The chart shows dependence of amplitude of the application circuit with OP-amp = AD795,  $R_f = 10 \text{ M}\Omega$  and  $C_f = 1 \text{ pF}$ .