

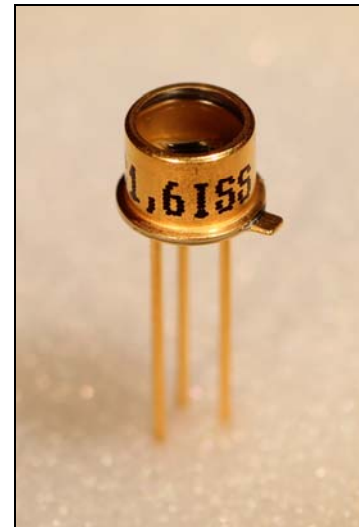


	<p>SiC-photodiodes JEC1,6IS / JEC 1,6ISS</p>
---	--

preliminary data sheet

characteristics :

- ◆ large area monolithic SiC photodiode
- ◆ active aerea: 1,55 mm²
- ◆ spectral range: 215 ... 360 nm
- ◆ high UV-responsivity: 0,16 A/W
- ◆ photodiode isolated to package
- ◆ hermetically sealed TO46-package
- ◆ RoHS and WEE conform



applications :

- ◆ UV-measurement only
- ◆ UV-source control
- ◆ flame detection

Maximum ratings :

- ◆ reverse voltage 20 V
- ◆ operating temperature range - 40 °C ... 100 °C
- ◆ storage temperature range - 40 °C ... 100 °C
- ◆ soldering temperature (3s) 260 °C

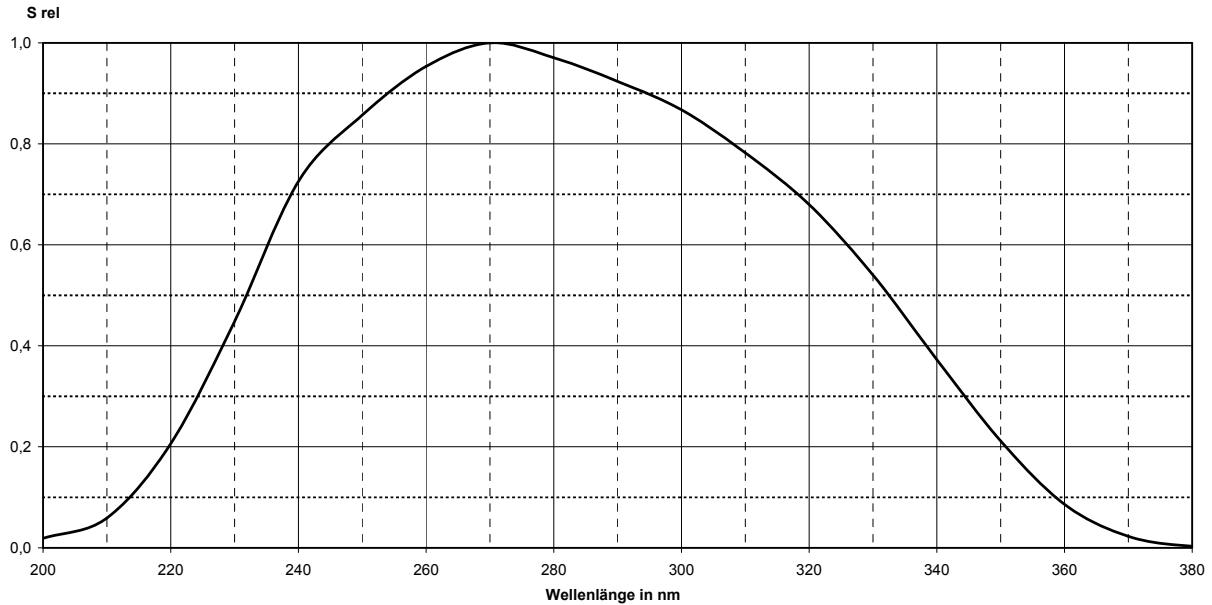
technical data :

test conditions, as not otherwise specified: T_A = 25 °C , V_R = 0 V

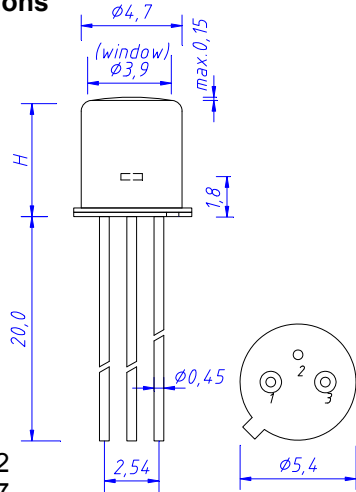
parameter	test condition	JEC1,6IS JEC 1,6ISS	unit
Active aerea		1,25 x 1,25	mm ²
maximum of spectral responsivity	$\lambda_{max} = 270 \text{ nm}$	0,16	A/W
spectral range	$S = 0,1 \times S_{max}$		
	λ_{min}	215	nm
	λ_{max}	360	
absolute spectral responsivity	$\lambda = 254 \text{ nm}$	0,14	A/W
dark current I _R	E = 0 lx	100	fA
rise time t _r of photocurrent	R _L = 50 Ω $\lambda = 254 \text{ nm}$ I _P = 10 μA	tbc	ns
capacitancet	F = 1 MHz E = 0 lx	250	pF

SiC-photodiodes JEC1,6IS / JEC1,6ISS

Relativespectral responsivity



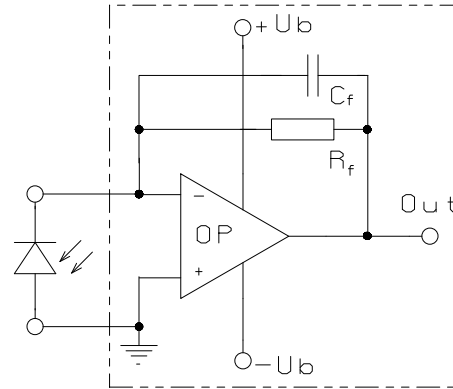
package dimensions



JEC 1,6IS H=5,2
JEC 1,6ISS H=3,7

- 1 Kathode bottom view
- 2 Case
- 3 Anode

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 $C_f = 1 \text{ pF}$.

