characteristics:

♦ SiC-photodiode with integrated special filter
♦ response close to erythema characteristic (CIE 87)
♦ ideal for solar application
♦ full hermetic TO-5 package
♦ integrated diffusor for cos-shaped response characteristic
♦ sensor assembly isolated to ground

applications:

♦ measurement of erythema efficient UV-part on natural sunlight
  (UVI-measurement with high exactness is possible)

absolute maximum ratings:

♦ max. reverse voltage 20 V
♦ operating temperature range -55 °C...+70 °C
♦ storage temperature range -55 °C...+100 °C
♦ welding temperature (3s) 260 °C

technical data:

common test conditions if not otherwise specified: $T_A = 25 \, ^\circ C$, $V_R = 0 \, V$

<table>
<thead>
<tr>
<th>parameter</th>
<th>test condition</th>
<th>min.</th>
<th>typ.</th>
<th>max.</th>
<th>unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>active area of sensor</td>
<td></td>
<td>0,965</td>
<td></td>
<td></td>
<td>$\text{mm}^2$</td>
</tr>
<tr>
<td>efficient area of diffusor</td>
<td></td>
<td></td>
<td>13,85</td>
<td>(Ø 4,2)</td>
<td>$\text{mm}^2$</td>
</tr>
<tr>
<td>max. of spectral responsivity *)</td>
<td>$S = S_{\max}$</td>
<td>1,5</td>
<td>1,8</td>
<td>2,2</td>
<td>mA/W</td>
</tr>
<tr>
<td>absolute spectral responsivity *)</td>
<td>$\lambda = 313 , \text{nm}$</td>
<td></td>
<td>0,03</td>
<td></td>
<td>mA/W</td>
</tr>
<tr>
<td>photocurrent at sunlight</td>
<td>bright sun</td>
<td>0,25</td>
<td></td>
<td></td>
<td>nA/UVI</td>
</tr>
<tr>
<td>dark current</td>
<td>$V_R = 1 , V$</td>
<td></td>
<td>10</td>
<td></td>
<td>fA</td>
</tr>
<tr>
<td>junction capacity</td>
<td></td>
<td>195</td>
<td></td>
<td></td>
<td>pF</td>
</tr>
</tbody>
</table>

*) based on efficient diffusor area

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The application example shows a typical electrical application circuit. 
R_f determines responsivity of the circuit, typical values are 100 MOhm to 1 GOhm. 
C_f works as compensation of junction capacity of the photodiode and input capacity of the OP-amplifier. 
Exact value of C_f depends on R_f, used OP-Amp as well as the parasitic capacities of the electrical circuit, typical value is 1 pF at minimum. For static measurements (UVI) C_f can be chosen much higher (1nF), so an additional effective suppression of noise of the amplifier can be achieved.