UV - Photodetector
with integrated amplifier

JIC 127 C
JIC 128 C
JIC 129 C

characteristics:
- integrated UV-C filter
- spectral range: 210 ... 280 nm
- active area: 0,055 mm²
- responsivity, decadic staggering: 0,8/8/80 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 sterilization lamps
- flamedetection and flamecontrol
- control of irradiancy in varnish and adhesive hardening

absolute maximum ratings:

<table>
<thead>
<tr>
<th>parameter</th>
<th>JIC 127C</th>
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<th>JIC 129C</th>
</tr>
</thead>
<tbody>
<tr>
<td>feedback resistor</td>
<td>10</td>
<td>100</td>
<td>1,000</td>
</tr>
<tr>
<td>dark offset voltage</td>
<td>E = 0 lx</td>
<td>± 1</td>
<td>± 2</td>
</tr>
<tr>
<td>noise voltage</td>
<td>B = 1 kHz</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>max. spectral responsivity</td>
<td>λ = 254 nm</td>
<td>0,6</td>
<td>6</td>
</tr>
<tr>
<td>risetime</td>
<td>20</td>
<td>100</td>
<td>700</td>
</tr>
<tr>
<td>bandwidth</td>
<td>- 3 dB</td>
<td>15</td>
<td>3</td>
</tr>
<tr>
<td>saturation voltage</td>
<td>R_i = 2 kΩ</td>
<td>+ 4,95 (+ 4,8)</td>
<td>V</td>
</tr>
<tr>
<td>short current</td>
<td>± 50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>supply voltage</td>
<td>+ 2,7...+ 5</td>
<td></td>
<td>V</td>
</tr>
<tr>
<td>current consumption</td>
<td>750 (1100)</td>
<td></td>
<td>μA</td>
</tr>
</tbody>
</table>

common test conditions, as not otherwise specified: T_A = 25 °C, V_s = +5 V

typ. values, maximum values in brackets
relative spectral responsivity

pin configuration

package dimension

1. $R_I$
2. Out
3. $V_S$
4. GND
5. Case

application hints:

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

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