Si PIN photodiode

S6036 series

ϕ7 mm lens plastic package

The S6036 series is Si PIN photodiode molded into a plastic package with a ϕ7 mm lens. Two types are available: S6036 of clear plastic package and S6036-01 of visible-cut package.

Features
- Plastic package with ϕ7 mm lens
- High-speed response: 25 MHz Typ. (VR=12 V, λ=850 nm)
- High sensitivity: 0.56 A/W (λ=λp)
- Directivity: ±25° (half angle)
- S6036-01: visible-cut type

Applications
- FSO (free space optics)
- Optical communications
- Optical data link
- High-speed optical measurement
- Optical switches
- Laser radars

Absolute maximum ratings

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Symbol</th>
<th>Value</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reverse voltage</td>
<td>VR max</td>
<td>35</td>
<td>V</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>Topr</td>
<td>-25 to +85</td>
<td>°C</td>
</tr>
<tr>
<td>Storage temperature</td>
<td>Tstg</td>
<td>-40 to +100</td>
<td>°C</td>
</tr>
</tbody>
</table>

Note: Exceeding the absolute maximum ratings even momentarily may cause a drop in product quality. Always be sure to use the product within the absolute maximum ratings.

Electrical and optical characteristics (Ta=25 °C)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Symbol</th>
<th>Condition</th>
<th>S6036</th>
<th>S6036-01</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spectral response range</td>
<td>λ</td>
<td></td>
<td>Min.</td>
<td>Typ.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>S6036</td>
<td>S6036-01</td>
</tr>
<tr>
<td>Peak sensitivity wavelength</td>
<td>λp</td>
<td></td>
<td>-</td>
<td>960</td>
</tr>
<tr>
<td>Photosensitivity</td>
<td>S</td>
<td>λ=λp</td>
<td>0.51</td>
<td>0.56</td>
</tr>
<tr>
<td>Short circuit current</td>
<td>Isc</td>
<td>100 lx, 2856 K</td>
<td>24</td>
<td>30</td>
</tr>
<tr>
<td>Dark current</td>
<td>Id</td>
<td>VR=12 V</td>
<td>-</td>
<td>0.1</td>
</tr>
<tr>
<td>Temperature coefficient of</td>
<td>Tcid</td>
<td>VR=12 V</td>
<td>-</td>
<td>1.15</td>
</tr>
<tr>
<td>current</td>
<td></td>
<td>f=12 V</td>
<td>-</td>
<td>10</td>
</tr>
<tr>
<td>Cutoff frequency</td>
<td>fc</td>
<td>VR=12 V, RL=50 Ω</td>
<td>10</td>
<td>25</td>
</tr>
<tr>
<td>Terminal capacitance</td>
<td>Ct</td>
<td>VR=12 V, f=1 MHz</td>
<td>-</td>
<td>15</td>
</tr>
<tr>
<td>Half angle</td>
<td></td>
<td></td>
<td>±25</td>
<td>±25</td>
</tr>
</tbody>
</table>

More info at www.hamamatsu.com
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Dimensional outline (unit: mm)

Center of lens

Tolerance unless otherwise noted: ±0.1

Related information
www.hamamatsu.com/sp/ssd/doc_en.html

Precautions
- Disclaimer
- Metal, ceramic, plastic package products

Technical information
- Si photodiode/Application circuit examples

Information described in this material is current as of October 2017.
Product specifications are subject to change without prior notice due to improvements or other reasons. This document has been carefully prepared and the information contained is believed to be accurate. In rare cases, however, there may be inaccuracies such as text errors. Before using these products, always contact us for the delivery specification sheet to check the latest specifications.
The product warranty is valid for one year after delivery and is limited to product repair or replacement for defects discovered and reported to us within that one year period. However, even if within the warranty period we accept absolutely no liability for any loss caused by natural disasters or improper product use.
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HAMAMATSU PHOTONICS K.K., Solid State Division
1126-1 Ichino-cho, Higashi-ku, Hamamatsu City, 435-8558 Japan, Telephone: (81) 53-434-3311, Fax: (81) 53-434-5184

U.S.A.: Hamamatsu Corporation: 360 Foothill Road, Bridgewater, N.J. 08807, U.S.A., Telephone: (1) 908-231-0960, Fax: (1) 908-231-1218, E-mail: uaa@hamamatsu.com

France: Hamamatsu Photonics France S.A.R.L.: 19, Rue du Saule Tripe, Parc du Moulin de Masey, 91882 Masy Cedex, France, Telephone: 33-(1) 69 53 71 00, Fax: 33-(1) 69 53 71 10, E-mail: info@hamamatsu.fr

Germany: Hamamatsu Photonics Deutschland GmbH: Arzbergerstr. 10, D-82211 Herrsching am Ammersee, Germany, Telephone: (49) 8152-375-0, Fax: (49) 8152-265-8, E-mail: info@hamamatsu.de

United Kingdom: Hamamatsu Photonics UK Limited: 2 Howard Court, St. Joan’s Road, Wilmslow Garden City, Macclesfield, SK8 1TB, United Kingdom, Telephone: (44) 1707-229486, Fax: (44) 1707-325777, E-mail: info@hamamatsu.co.uk

North Europe: Hamamatsu Photonics Norden AB: Tornhamsgatan 35 16440 Kista, Sweden, Telephone: (46) 10 001 01 00, Fax: (46) 10 001 01 00, E-mail: info@hamamatsu.se

Italy: Hamamatsu Photonics Italia S.r.l.: Via delle Mura, 1 Int. 6, 20020 Arese (Milano), Italy, Telephone: (39) 02 949 53 17 33, Fax: (39) 02 949 53 17 43, E-mail: info@hamamatsu.it

Taiwan: Hamamatsu Photonics Taiwan Co., Ltd.: 8F-3, No. 158, Section2, Gongdao 5th Road, East District, Hsinchu, 300, Taiwan R.O.C. Telephone: (886) 3-659-0080, Fax: (886) 3-659-0081, E-mail: info@tw.hpk.co.jp

www.hamamatsu.com