New Miniature Minimold Through-Hole IR Receivers Offer Improved Optical Performance and RF Noise Rejection, Wave or Reflow Soldering Options

Product Benefits:
- Offered in the new Minimold package
- High sensitivity with typical irradiance down to 0.08 mW/m² at 0°
- Proven “F” option for an enhanced optical filter against out-of-band optical noise
- Simplify designs with a photo detector, preamplifier circuit, and IR filter in a single 3-pin epoxy package
- Supply voltage from 2.5 V to 5.5 V
- Very low supply current down to 0.35 mA typical
- Improved immunity against ambient light
- Insensitive to supply voltage variations and ripple noise
- Offered in five automatic gain control (AGC) versions for short and long burst codes
- Support IR reflow soldering
- RoHS-compliant, halogen-free, and Vishay Green

Market Applications:
- IR remote control applications in consumer products such as televisions, set-top boxes, air conditioners, and Hi-Fi audio systems

The News:
Vishay Intertechnology broadens its optoelectronics portfolio with the introduction of two new series of miniature infrared (IR) receiver modules for IR remote control applications in consumer products. Offered in the new Minimold package, Vishay Semiconductors TSOP33xxx and TSOP53xxx series devices deliver the same RF noise rejection as Minicast receivers, while surpassing the high optical performance of Mold package devices.
- Minimold package exhibits higher sensitivities than the Mold device at all off-angles up to 45°
- TSOP331xx, TSOP332xx, TSOP531xx, and TSOP532xx provide legacy compatibility with all common IR control data formats
- TSOP333xx, TSOP334xx, TSOP533xx, and TSOP534xx are ideal for all remote control applications and suppress spurious pulses from energy-saving lamps and Wi-Fi sources, in addition to continuously transmitted data signals
- While devices in Mold and Minicast packages only support wave or hand soldering, Minimold receivers with the “P” option also provide support for IR reflow soldering
- Available in two holder and three bend options, including a top-view surface-mount version
The Key Specifications:

<table>
<thead>
<tr>
<th>Specification</th>
<th>TSOP33xxx</th>
<th>TSOP53xxx</th>
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<tbody>
<tr>
<td>Typical irradiance @ 0°(mW/m²)</td>
<td>0.08</td>
<td>0.12</td>
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<tr>
<td>Supply voltage (V)</td>
<td>2.5 to 5.5</td>
<td></td>
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<tr>
<td>Typical supply current (mA)</td>
<td>0.35</td>
<td>0.7</td>
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<tr>
<td>Transmission range (m)</td>
<td>45</td>
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<tr>
<td>Carrier frequencies (kHz)</td>
<td>30 to 56</td>
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Availability:
Samples and production quantities of the TSOP33xxx and TSOP53xxx series are available now, with lead times of four weeks.

To access the product datasheets on the Vishay website, go to

http://www.vishay.com/ppg?82742 (TSOP331.., TSOP333.., TSOP335..)
http://www.vishay.com/ppg?82663 (TSOP332.., TSOP334..)
http://www.vishay.com/ppg?82745 (TSOP531.., TSOP533.., TSOP535..)
http://www.vishay.com/ppg?82743 (TSOP532.., TSOP534..)

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