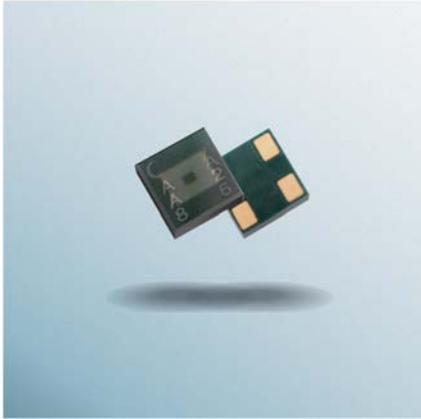


# Digital Ambient Light Sensor IC Compatible with I<sup>2</sup>C Bus Hs Mode

## BH1780GLI



The world's first\* ambient light sensor IC developed for mobile phones compatible with I<sup>2</sup>C bus Hs mode

**Product outline**

ROHM's new ambient light sensor IC features a wide measurement range (from darkness to direct sunlight) and spectral sensitivity close to the human eye, while compatibility with I<sup>2</sup>C bus Hs (High speed) mode - an industry first - enables faster communication with the CPU while simplifying control and bus line layout. In addition, the new WLGA04IW02 package prevents malfunctions due to infrared light and original photo IC and trimming technologies are utilized to limit sensitivity variations to within +/-20%.

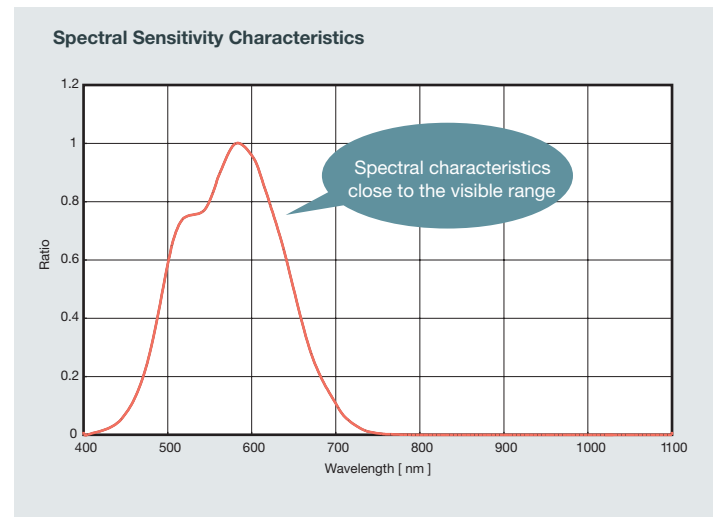
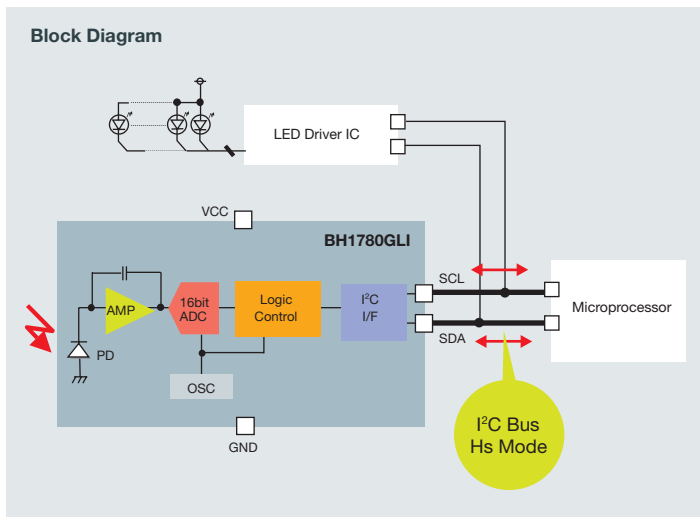
\*ROHM Sept. 2009 Survey

### ■ Hs Mode Compatibility - An Industry First\*

Compatibility with the new I<sup>2</sup>C bus Hs mode increases throughput to upto 3.4Mbps.

### ■ Optimized spectral sensitivity

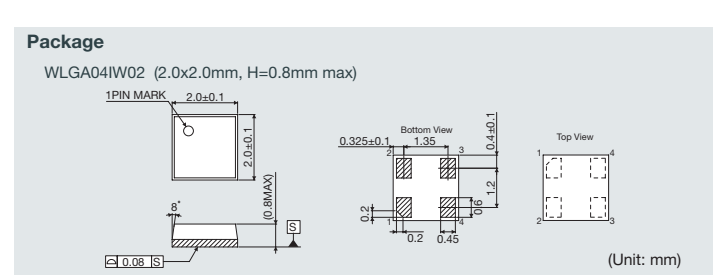
The optical filter mold resin, developed utilizing original technology, results in spectral sensitivity characteristics close to the human eye. This minimizes dependence on light source for more stable, accurate measurements.



- Compatible with both Hs and f/s modes for I<sup>2</sup>C bus
- Wide light measurement range (0 to 65,535 lx)
- Built-in 16bit A/D converter eliminates the need for external parts
- Brightness value output digitally
- 50Hz/60Hz optical noise removal function ensures stable measurement

**Specifications**

Part No.	Supply Voltage (V)	Output Method	Sensitivity Variation (%)	Light Measurement Range (lx)
BH1780GLI	2.3 to 3.0	I <sup>2</sup> C I/F	±20	0 - 65,000



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