



3-stage gain switching - an industry first*

Compact Analog Ambient Light Sensor IC

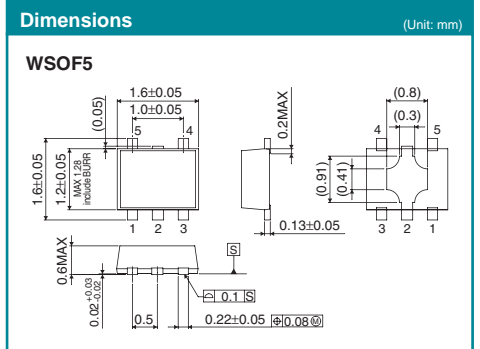
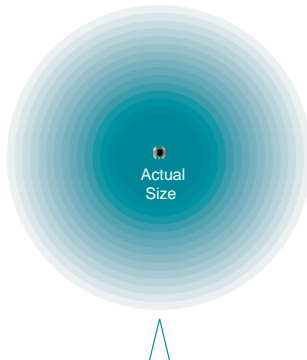
* Sept. 2008 ROHM survey



BH1620FVC

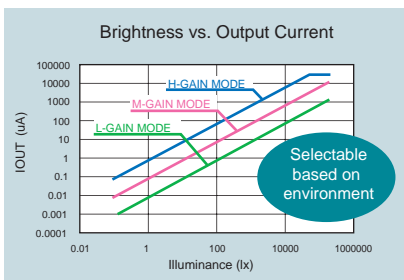


Remarkable performance and quality in an ultra-compact design



3-stage output gain switching

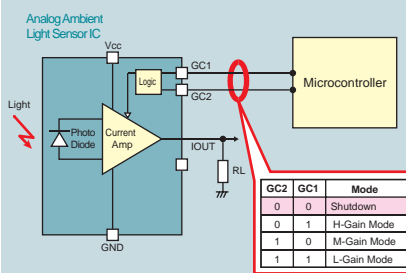
3-output current gain switching makes it possible to accommodate for different environments: H-Gain for dark conditions, M-Gain for indoors, and L-Gain for bright environments/outdoors.



10uA current during shutdown

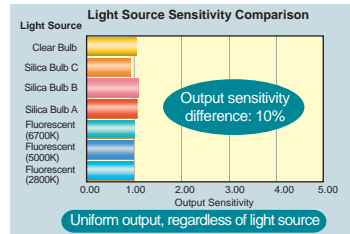
A mode-setting terminal is integrated, enabling easy ON/OFF control of the internal circuit for intermittent operation (turns the circuit ON only during measurement), resulting in lower power consumption.

Operation Mode Control via Mode-setting Terminal



Control 2 sensitivity tolerances

1. Light source sensitivity tolerance



2. Product tolerance

Original laser trimming technology was utilized for precise light sensing precision.

Conventional **±35%** → **±15%**

• Analog Ambient Light Sensor IC Lineup

Part No.	Output Method	Supply Voltage (V)	Sensitivity Tolerance (%)	Output Sensitivity Switching	Measurement Range (lx)	Operating Temp. Range (°C)	Package
New BH1620FVC	Current (Source)	2.4 to 5.5	±15	3-stage	0 to 100,000	-40 to +85	Top Bottom WSOF5
BH1600FVC	Current (Source)	2.4 to 3.6	±35	2-stage	0 to 50,000	-30 to +85	Top Bottom
BH1603FVC	Current (Source)	2.4 to 5.5	±15	3-stage	0 to 100,000	-40 to +85	WSOF6

Actual size shown

Excellence in Electronics



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