



## ■ Proximity Sensor

(Ta = 25°C)

Model No.	Features	Absolute maximum ratings		Electro-optical characteristics				
		Vcc (V)	Topr (°C)	Dissipation current Icc (μA) TYP.	Detecting distance Lon (mm) MIN.	Non-Detecting distance Loff (mm) MAX.	Output resolution (bit)	Peak emission wavelength λp (nm)
GP2AP002S30F	Compact size (4.0 × 2.0 × 1.25 t mm) Drastically reduced LED current consumption by employing a light modulation system Built-in LEDs for simple optical design and I <sup>2</sup> C output (LED emission duty: MAX. 0.3%)	3.8	-25 to +85	240	25	150	-	940
GP2AP070S00F	Compact size (4.0 × 2.0 × 1.1 t mm) High accuracy Precision ±10% (Distance 100mm)	3.8	-25 to +85	170	100 (TYP.)		14	940
GP2AP110S00F	Compact size (4.0 × 2.0 × 1.1 t mm) Built-in VCSEL for Narrow IR-window (window size 4.0 × 1.0mm)	3.8	-25 to +85	130	100 (TYP.)		14	940



## ■ Proximity Sensor with Integrated Ambient Light Sensor

(Ta = 25°C)

Model No.	Features	Absolute maximum ratings		Electro-optical characteristics					
		Vcc (V)	Topr (°C)	Dissipation current Icc (μA) TYP.	Proximity sensor portion		Ambient light sensor portion		
					Detecting distance Lon (mm) TYP.	Peak emission wavelength λp (nm)	Recommended illuminance range Ev (lx)	Output resolution (bit)	ADC conversion time Tint (ms) TYP.
GP2AP030A00F	LED and ambient light sensor combined in a single package (4.0 × 2.1 × 1.25 t mm) Built-in LEDs for simple optical design Illuminance output: digital 16-bit output (Minimum detectable illuminance: 0.02 lx) I <sup>2</sup> C output compatible (proximity sensor, ambient light sensor)	5.5	-35 to +85	65	100	940	0.02 to 10 000	16	100
GP2AP007A00F	LED and ambient light sensor combined in a single package (2.5 × 2.0 × 1.0 t mm) Compact with reduced mounting area Illuminance output: digital 16-bit output (Minimum detectable illuminance: 0.1 lx) Small aperture compatible I <sup>2</sup> C output compatible (proximity sensor, ambient light sensor)	2.2 to 5.5	-30 to +85	100	100	940	0.1 to 100 000	16	30
GP2AP008T00F	LED and ambient light sensor combined in a single package (3.94 × 2.36 × 1.35 t mm) Illuminance output: digital 16-bit output (Minimum detectable illuminance: 0.1 lx) Small aperture compatible I <sup>2</sup> C output compatible (proximity sensor, ambient light sensor)	2.2 to 5.5	-30 to +85	100	100	940	0.1 to 100 000	16	30



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## ■ Proximity/Gesture Sensor with Integrated Ambient Light Sensor

(Ta = 25°C)

Model No.	Features	Absolute maximum ratings		Electro-optical characteristics						
		Vcc (V)	Topr (°C)	Dissipation current Icc (μA) TYP.	Dissipation current Icc (Gesture) (μA) TYP.	Proximity/gesture sensor portion		Ambient light sensor portion		
						Detecting distance Lon (mm) TYP.	Peak emission wavelength λp (nm)	Recommended illuminance range Ev (lx)	Output resolution (bit)	ADC conversion time Tint (ms) TYP.
GP2AP054A00F	LED and ambient light sensor combined in a single package (4.0 × 2.1 × 1.25 t mm) Simultaneous operation of the gesture recognition and illuminance functions is possible Low power consumption mode is available for the proximity sensor Capable of holding a total of 4 gesture detection results	5.5	-35 to +85	100	320	100	940	0.02 to 10 000	16	30



## ■ UV Light Sensors

(Ta = 25°C)

Model No.	Features	Absolute maximum ratings			Electro-optical characteristics					
		Vcc (V)	I <sup>2</sup> C voltage VI <sup>2</sup> C (V)	Topr (°C)	Dissipation current Icc (μA) TYP.	Built-in clock frequency fosc (MHz) TYP.	Output resolution (bit)	ADC conversion time (ms) TYP.	Recommended illuminance range Ev (lx) Sunlight (AM1.5 equivalent)	
GA1AUV100WP▲	Detects only UV rays contained within sunlight (no sensitivity to visible light) Built-in ambient light sensor Compact size: 2.0 × 1.6 × 0.6 t mm I <sup>2</sup> C output compatible	2.2 to 5.5	1.7 to Vcc	-35 to +85	65	2.62	16	25	UV: 0 to 200 000 Illuminance: 0 to 120 000	

The model marked with ▲ may not be available in the near future. Contact with SHARP for details before use.



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