

VISHAY Opto Components



This product is RoHS compliant.

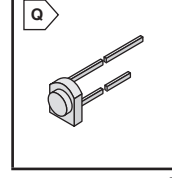
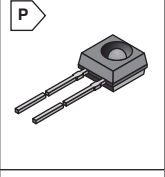
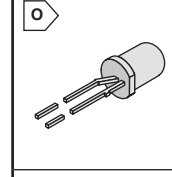
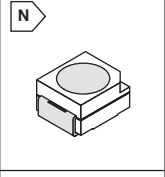
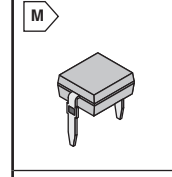
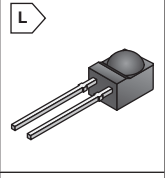
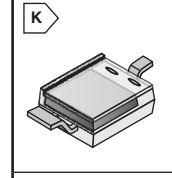
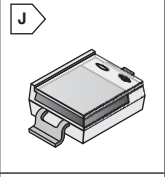
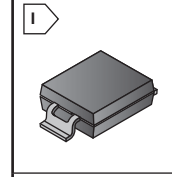
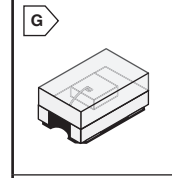
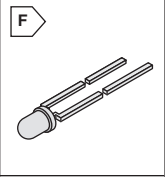
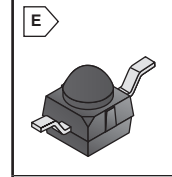
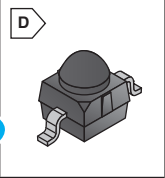
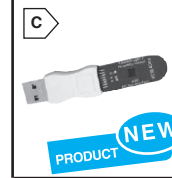
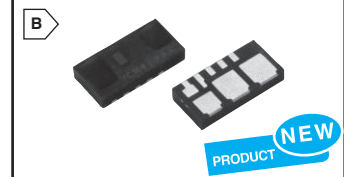
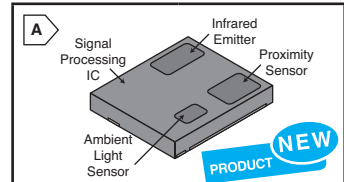
FULLY INTEGRATED PROXIMITY AND AMBIENT LIGHT SENSOR WITH INFRARED EMITTER AND I²C INTERFACE

- Features:**
- Built in infrared LED and photo pin diode for proximity function.
 - Built in ambient light photo pin diode with close to human eye sensitivity characteristics.

- Applications:**
- Proximity sensor for mobile devices (e.g. smart phones, touch phones, PDA, GPS) for touch screen locking, power saving, etc.
 - Integrated ambient light function for display/keyboard contrast control and dimming of mobile devices
 - Proximity/optical switch for consumer, computing and industrial devices and displays
 - Dimming control for consumer, computing and industrial displays

◆ Surface Mount Devices

MOUSER STOCK NO.		Fig.	Bus	Resolution	Supply Voltage (V)	IQ (µA)	LED Pulse Current (mA)	Proximity Detection Max.	Ambient Light Detection	Ambient Light Resolution	Price Each			
Mfr.	Mfr. Part No.										1	100	500	Reel 1800
◆	78—VCNL4000-GS08	A	I ² C	16 Bit	2.5 to 3.6	1.5	10-200	200mm	0.33lx to 22klx	0.33lx	2.75	2.20	1.82	1.60
◆	78—VCNL4010-GS08	A	I ² C	16 Bit	2.5 to 3.6	1.5	10-200	200mm	0.25 to 16,363lx	0.25 lx	2.97	2.20	1.92	1.54
◆	78—VCNL4020-GS08	B	I ² C	16 Bit	2.5 to 3.6	1.5	10-200	200mm	.25 to 16,363lx	.25lx	2.70	2.61	1.87	1.46
Description														
◆	78—VCNL4000DEMOKIT	C	VCNL4000 Dev. Kit - Includes Sensor Board, USB Connector Board, and Software								37.00	-	-	-



HIGH BRIGHTNESS LED POWER MODULE

*Per Six LEDs For quantities greater than listed, call for quote.

MOUSER STOCK NO.	Vishay Part No.	Color	No. of LEDs	Forward Current	Forward Voltage Typ.	Forward Voltage Max.	Luminous Flux Min.	Luminous Flux Typ.	Color Temperature (K)	Viewing Angle	Price Each
78-VLPC0601A2	VLPC0601A2	Cool White	12	700	20	23	760	870	5000-7000	±80°	45.15
78-VLPC1201A2J	VLPC1201A2J	Cool White	6	700	42	46	1520	1740	5000-7000	±80°	80.85
78-VLPC1201A2	VLPC1201A2	Cool White	12	700	*20	*23	2x760	2x870	5000-7000	±80°	80.85

DETECTORS

◆ Surface Mount Devices For quantities greater than listed, call for quote.

MOUSER STOCK NO.		Fig.	Angle of Half Sensitivity (°)	Reverse Light Current			Peak Wavelength Sensitivity (nm)	Reverse Dark Current (typ)(nA)	Rise/Fall Times (ns)	Price Each				
Mfr.	Mfr. Part No.			(Min./Typ.)(µA)	@Rev. Volt (V)	@Ee (mW/cm ²)				@Wave-length (nm)	1	100	500	1000
Photo PIN Diodes														
◆	782—VEMD2020X01	D	±15	5/12	5	1	950	940	1	100/100	.79	.534	.396	.316
◆	782—VEMD2500X01	E	±15	5/12	5	1	950	900	1	100/100	.75	.47	.34	.30
◆	782—VEMD2520X01	D	±15	5/12	5	1	950	900	1	100/100	.75	.47	.34	.30
◆	78—TEFD4300	F	±20	9/17	5	1	950	950	0.15	100/100	.70	.44	.32	.24
◆	78—TEFD4300F	F	±20	9/17	5	1	950	950	0.15	100/100	.70	.44	.32	.24
◆	782—TEMD7000X01	G	±60	---/3	5	1	950	900	1	100/100	.74	.59	.44	.39
◆	782—TEMD7100X01	G	±60	---/3	5	1	950	950	1	100/100	.74	.59	.44	.352
◆	782—TEMD5120X01	H	±65	25/35	5	1	950	940	2	100/100	1.37	1.08	.846	.79
◆	782—VBP104FAS	I	±65	25/35	5	1	950	950	2	100/100	1.00	.71	.55	.39
◆	782—VBP104S	J	±65	25/35	5	1	950	940	2	100/100	.71	.57	.47	.398
◆	782—TEMD5010	H	±65	40/55	5	1	950	900	2	100/100	1.60	1.21	1.10	1.01
◆	782—TEMD5110X01	H	±65	45/55	5	1	950	940	2	100/100	1.44	1.14	.89	.70
◆	782—VBPW34FAS	I	±65	45/55	5	1	950	950	2	100/100	.71	.666	.594	.425
◆	782—VBPW34S	J	±65	45/55	5	1	950	940	2	100/100	1.05	.75	.58	.425
◆	782—VBPW34SR	K	±65	45/55	5	1	950	940	2	100/100	1.05	.75	.58	.425
◆	782—TEMD5080X01	H	±65	---/60	5	1	950	940	2	40/40	1.31	1.06	.872	.762
◆	782—BPV22NF	L	±60	55/85	5	1	870	940	2	100/100	.97	.678	.526	.415
◆	782—BPW34	M	±65	40/50	5	1	950	900	2	100/100	1.05	.72	.565	.453
Photo Transistors														
◆	782—VEMT2000X01	E	±15	1/100	5	50	860	20	6	---/---	.75	.504	.374	.299
◆	782—VEMT2020X01	D	±15	1/100	5	50	860	20	6	---/---	.75	.504	.374	.299
◆	782—VEMT2500X01	E	±15	1/100	5	50	850	20	6	---/---	.71	.44	.32	.28
◆	782—VEMT2520X01	D	±15	1/100	5	50	850	20	6	---/---	.71	.44	.32	.28
◆	782—VEMT3700	N	±60	1/200	20	50	850	70	0.5	6/2	.75	.65	.60	.54
◆	782—VEMT3700F	N	±60	1/200	20	50	850	70	0.5	6/2	.58	.50	.46	.38
◆	782—VEMT4700	N	±60	1/200	20	50	850	70	0.5	6/2	.61	.53	.49	.40
◆	782—BPV11F	O	±15	1/50	10	50	930	70	9	6/5	.96	.65	.482	.385
◆	782—BPW85C	F	±25	1/200	20	50	850	70	5	2.0/2.3	.38	.306	.25	.22
◆	782—TEKT5400S	P	±37	1/100	20	100	920	70	4	6/5	.76	.51	.387	.336

EMITTERS

◆ Surface Mount Devices For quantities greater than listed, call for quote.

MOUSER STOCK NO.		Fig.	Angle of Half Intensity (°)	Radiant Intensity @ IF		Forward Voltage @ IF		Peak Emission Wavelength (nm)	Rise/Fall Times (ns)	Price Each			
Mfr.	Mfr. Part No.			(min/typ) (mW/sr)	(mA)	(typ/max) (V)	(mA)			1	100	500	1000
Standard													
◆	78—CQY37N	Q	±12	2.5/5.0	50	1.3/1.6	50	950	400/450	.53	.33	.273	.25
◆	782—TSHA4401	F	±20	16/30	100	1.5/1.8	100	875	600/600	.29	.23	.19	.185
◆	782—TSKSS5400S	P	±30	2.0/---	50	1.3/1.7	100	950	400/450	.86	.58	.43	.344
High-Power													
◆	782—TSML1000	E	±12	3/7	20	1.2/1.5	20	940	800/800	.67	.54	.424	.309
◆	782—TSMF1020	D	±17	2.5/5	20	1.3/1.5	20	890	30/30	.78	.63	.495	.348
◆	782—VSM13710	N	±60	4/8	100	1.35/1.6	100	940	800/800	.51	.41	.306	.213
◆	782—TSAL6100	O	±10	40/60	100	1.35/1.6	100	940	800/800	.55	.294	.201	.151
◆	782—TSAL6200	O	±17	40/60	100	1.35/1.6	100	940	800/800	.55	.294	.201	.151
◆	782—TSAL7200	O	±17	40/60	100	1.35/1.6	100	940	800/800	.55	.294	.201	.151
◆	782—TSAL6400	O	±25	25/40	100	1.35/1.6	100	940	800/800	.55	.294	.201	.151
◆	782—TSAL7400	O	±25	25/40	100	1.35/1.6	100	940	800/800	.55	.294	.201	.151
◆	782—VSMY7852X01-GS08	R	±60	30/42	250	1.8/2	250	850	8/10	2.87	2.00	1.55	1.31
◆	782—VSMY7850X01-GS08	R	±60	130/170	1000	2/2.5	1000	850	15/18	5.40	3.96	3.15	2.70
High Speed													
◆	782—VSMY1850	G	±60	5/15	100	1.65/1.9	100	850	10/10	.68	.64	.57	.47
◆	782—VSMY2850G	D	±10	10/100	100	1.65/1.9	100	850	10/10	.52	.49	.473	.376
◆	782—VSMY2850RG	D	±10	50/100	100	1.65/1.9	100	850	10/10	.52	.49	.473	.376
◆	782—VSMY3850-GS08	N	±60	12/17	100	1.6/1.9	100	850	10/10	.53	.51	.486	.386
◆	782—VSL Y3850	F	±18	35/70	100	1.65/1.9	100	850	10/10	.90	.73	.60	.53
◆	782—VSL Y5850	F	±3	300/600	100	1.65/1.9	100	850	10/10	.93	.75	.62	.54
◆	782—VSMB2000X01	D	±12	20/40	100	1.35/1.6	100	940	15/15	.77	.525	.385	.306
◆	782—VSMB2020X01	E	±12	20/40	100	1.35/1.6	100	940	15/15	.70	.472	.35	.28
◆	782—VSMB1940X01	G	±60	3/6	100	1.35/1.6	100	940	15/15	.84	.567	.42	.336
◆	782—VSMB3940X01	N	±60	7/13	100	1.35/1.6	100	940	15/15	.66	.442	.33	.27
◆	782—VSMF4720	N	±60	10/16	100	1.45/1.6	100	870	15/15	.55	.44	.36	.32
◆	782—TSHG5210	O	±10	140/230	100	1.5/1.8	100	850	20/13	.72	.58	.48	.42
◆	782—TSHG6210	O	±10	140/230	100	1.5/1.8	100	850	20/13	.72	.58	.51	.48
◆	782—TSHG6410	O	±18	45/90	100	1.5/1.8	100	850	20/13	.72	.58	.48	.42
◆	782—VSL B3940	F	±22	32/65	100	1.35/1.6	100	940	15/15	.36	.29	.24	.21
◆	782—TSHF6410	O	±22	45/70	100	1.4/1.6	100	890	30/30	.64	.405	.297	.229
◆	782—TSFF5410	O	±22	45/70	100	1.5/1.8	100	870	15/15	1.01	.708	.549	.433
◆	782—TSHG6400	O	±22	45/70	100	1.5/1.8	100	850	20/13	1.24	.867	.672	.531
◆	782—TSHG5510												