

TDK Visible Radiant Optical Sensors — Photodiodes



These photodiodes use an amorphous silicon semiconductor on the glass substrate. They are the most suitable for brightness adjustment and control of lighting systems.

Features: • Highly receptive to visible light but not receptive to infrared light (close to human eye visibility) • Accurate illumination measurement can be taken without the use of an infrared filter

Specifications: • Operating Temperature: -20°C - 85°C • Spectral Sensitivity Area: 350 - 750nm • Peak of sensitivity: 580nm ±20

Applications: • Brightness control for LCD, EL, and CRT • Brightness control for keypads (e.g., mobile phones) • Positioning scan line for rear projection TV • Exposure adjust for compact camera • Sub exposure adjust for digital camera

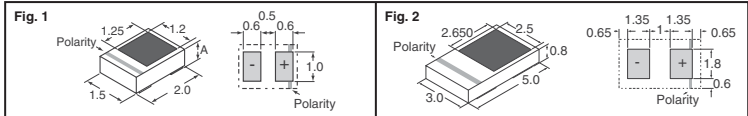


Fig.	Max. Output Current (µA) (VR=5V)	Max. Reverse Bias Voltage (V)	Max. Dark Current (pA) VR=.05V	Dim. A (mm)	Digi-Key Part No.	Cut Tape Price Each		Digi-Key Part No.	Tape and Reel		TDK Part No.
						1	10		Qty.	Pricing	
1	0.16	10	10	0.6	445-2589-1-ND	3.62	2.50	—	4,000	1654.00/M	BCS2015G1 BCS2015H1 BCS5030G1
	0.13	6	10	.25	445-2591-1-ND	3.62	2.50		—	—	
2	0.55	6	100	—	445-2590-1-ND	6.24	4.75	445-2590-2-ND	3,000	3371.00/M	

OSRAM Optoelectronics

Photodiodes



Fig.	Fwd. Volt. (V)	Photo Cur. (µA)	Dark Cur. (nA)	Peak Wavelength (nm)	Rise/Fall Time (ns)	View Angle (°)	Digi-Key Part No.	Bulk Price Each			Osram Part No.
								1	10	100	
1	1.3	50	2	880	20	120	475-1072-ND	.76	.61	.56	BPW34FA
	1.3	50	1	900	5	40	475-1075-ND	.78	.63	.57	SFH203FA
2	1.3	135	1	850	5	20	475-1077-ND	.72	.58	.53	SFH213
	1.3	80	2	850	20	120	475-1076-ND	.92	.74	.67	SFH206K
3	1.3	60	2	950	20	120	475-1429-ND	.72	.58	.53	SFH 205 F
	1.3	60	2	900	20	120	475-1430-ND	.72	.58	.53	SFH 205 FA
4	1.3	28	.05	860	10	34	475-1078-ND	.58	.47	.43	SFH229
	1.3	20	.05	900	10	34	475-1079-ND	.58	.47	.43	SFH229FA
5	—	100	0.1	850	5	30	475-1435-ND	.60	.48	.44	SFH 2505-Z
	—	—	0.1	900	5	30	475-1436-ND	.60	.48	.44	SFH 2505 FA-Z
6	—	—	0.1	900	5	30	475-1434-ND	.60	.48	.44	SFH 2500 FA-Z
7	1.3	—	1	900	5	150	475-1428-ND	.90	.72	.66	SFH 203 PFA
8	1.3	50	2	880	20	120	475-1346-ND	.94	.76	.69	BPW 34 FASR-Z
9	1.3	55	2	850	20	120	475-1345-1-ND†	.84	.68	.61	BP 104 S-Z
	1.3	55	2	850	20	120	475-1345-2-ND‡	945.00/1,500			BP 104 S-Z
	1.2	—	0.1	570	200µs	120	475-2579-1-ND†	1.84	1.54	1.23	SFH 2430-Z
	1.2	—	0.1	570	200µs	120	475-2579-2-ND‡	1380.00/1,500			SFH 2430-Z
10	1.3	24	10	900	500	120	475-1349-ND	12.80	10.24	9.28	BPX 48
11	1.3	—	2	850	20	110	475-1350-ND	8.60	6.88	6.24	BPX 61
12	1.0	—	10	900	500	110	475-1431-ND	10.60	8.48	7.69	SFH 221
13	1.3	34	2	900	20	120	475-1432-ND	.62	.50	.45	SFH 225 FA
	1.3	50	2	900	20	130	475-1433-ND	.64	.52	.47	SFH 235 FA

† Cut Tape ‡ Tape and Reel

Phototransistors

Fig.	Collector Emitter (V) Max.	Photo Cur. Emit. to Col. (mA) Typ.	Dark Cur. (nA)	Peak Wavelength (nm)	Rise/Fall Time (µs) Typ.	View Angle (°)	Digi-Key Part No.	Bulk Price Each			Osram Part No.
								1	10	100	
2	70	7.5	3	870	11	20	475-1080-ND	.36	.29	.27	SFH313FA
	35	—	1	880	10	50	475-1437-ND	.40	.32	.29	SFH 300-3/4
	35	—	1	880	10	50	475-1438-ND	.42	.34	.31	SFH 300 FA-3/4
4	35	—	1	900	7/8	24	475-1440-ND	.42	.34	.31	SFH 309 FA-4/5
6	35	—	3	830	—	26	475-1453-ND	.48	.39	.35	SFH 3500-Z
14	50	—	20	880	9/12	80	475-1347-ND	1.30	1.04	.95	BPX 38-2/3
	50	—	20	880	12/15	30	475-1348-ND	1.24	1.00	.90	BPX 43-3/4
	35	—	1	830	7/9	16	475-1351-ND	1.42	1.14	1.03	BPY 62-3/4
	50	3	20	880	15/18	30	475-1074-ND	1.30	1.04	.95	BPX43-4/5
15	70	1.9	3	850	11	80	475-1081-ND	.36	.29	.27	SFH314
16	35	—	1	920	7/9	28	475-1445-ND	.34	.28	.25	SFH 3100 F
17	30	—	3	850	10	70	475-1419-ND	.42	.34	.31	LPT 80A
18	35	—	1	860	6	150	475-1441-ND	.36	.29	.27	SFH 309 P
	35	—	1	900	6	150	475-1442-ND	.36	.29	.27	SFH 309 PFA
19	70	—	5	780	7/8	50	475-1443-ND	.42	.34	.31	SFH 310-2/3
	70	—	5	880	7/8	50	475-1444-ND	.34	.28	.25	SFH 310 FA-2/3
20	35	—	1	980	7/8	120	475-1446-ND	.34	.28	.25	SFH 320-3/4-Z
	35	—	1	860	—	120	475-2572-1-ND†	.99	.83	.66	SFH 7225-Z
	35	—	1	860	—	120	475-2572-2-ND‡	990.00/2,000			SFH 7225-Z
	35	—	1	860	7	120	475-2570-1-ND†	.99	.83	.66	SFH 7221-Z
	35	—	1	860	7	120	475-2570-2-ND‡	990.00/2,000			SFH 7221-Z
	—	—	—	565	500	120	475-2571-1-ND†	.99	.83	.66	SFH 7222-Z
21	15	—	2	920	7	120	475-1447-ND	.66	.53	.48	SFH 3204-Z
	35	—	1	990	7	50	475-1448-ND	.48	.39	.35	SFH 3219-Z
23	35	—	1	980	7/8	120	475-1449-ND	.42	.34	.31	SFH 325-3/4-Z
	35	—	1	980	7/8	120	475-1450-ND	.42	.34	.31	SFH 325 FA-3/4-Z
24	70	—	3	850	24/34	120	475-1451-ND	.66	.53	.48	SFH 3400-2/3-Z
	5.5	—	3	570	—	120	475-1452-1-ND†	.76	.61	.56	SFH 3410-2/3-Z
	5.5	—	3	570	—	120	475-1452-2-ND‡	1140.00/2,000			SFH 3410-2/3-Z
25	35	—	5	870	13/15	40	475-1439-ND	.56	.45	.41	SFH 303 FA-3/4

† Cut Tape ‡ Tape and Reel

(Continued)

Digi-Reel® Most SMT cutdown parts are available on a Digi-Reel®. For Digi-Reel part number, change 1-ND to 6-ND or CT-ND to DKR-ND. See Digi-Key® Services on page 2 for additional information.

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