

# 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: 500nm ±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

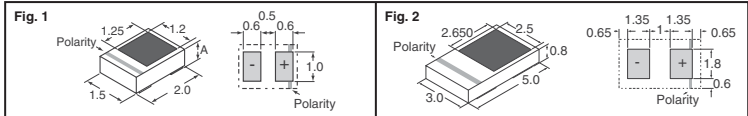


Fig.	Max. Output Current (µA) (VR=5V)	Max. Reverse Bias Voltage (V)	Max. Dark Current (pA) VR=.05V	Dim. A (mm)	Digi-Key Part No.	Cut Tape Price Each		Digi-Key Part No.	Tape and Reel		TDK Part No.
						1	10		Qty.	Pricing	
1	0.16	10	10	0.6	445-2589-1-ND	2.63	1.82	—	4,000	1200.81/M	BCS2015G1
	0.13	6	10	.25	445-2591-1-ND	2.63	1.82				
2	0.55	6	100	—	445-2590-1-ND	4.53	3.45	445-2590-2-ND	3,000	2447.35/M	BCS5030G1

# 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	.55	.45	.40	BPW34FA
	1.3	50	1	900	5	40	475-1075-ND	.57	.46	.42	SFH203FA
2	1.3	135	1	850	5	20	475-1077-ND	.52	.42	.38	SFH213
	1.3	80	2	850	20	120	475-1076-ND	.67	.54	.49	SFH206K
3	1.3	60	2	950	20	120	475-1429-ND	.52	.42	.38	SFH 205 F
	1.3	60	2	900	20	120	475-1430-ND	.52	.42	.38	SFH 205 FA
4	1.3	28	.05	860	10	34	475-1078-ND	.42	.34	.31	SFH229
	1.3	20	.05	900	10	34	475-1079-ND	.42	.34	.31	SFH229FA
5	—	100	0.1	850	5	30	475-1435-ND	.44	.35	.32	SFH 2505-Z
	—	—	0.1	900	5	30	475-1436-ND	.68	.55	.50	SFH 2505 FA-Z
6	—	—	0.1	900	5	30	475-1434-ND	.44	.35	.32	SFH 2500 FA-Z
7	1.3	—	1	900	5	150	475-1428-ND	.65	.53	.48	SFH 203 PFA
8	1.3	50	2	880	20	120	475-1346-ND	.68	.55	.50	BPW 34 FASR-Z
	1.3	55	2	850	20	120	475-1345-1-ND†	.91	.77	.61	BP 104 S-Z
9	1.3	55	2	850	20	120	475-1345-2-ND‡	686.07/1,500			BP 104 S-Z
	1.2	—	0.1	570	200µs	120	475-2579-1-ND†	1.34	1.12	.90	SFH 2430-Z
10	1.3	24	10	900	500	120	475-1349-ND	9.29	7.44	6.74	SFH 2430-Z
	1.3	—	2	850	20	110	475-1350-ND	6.24	5.00	4.53	BPX 61
12	1.0	—	10	900	500	110	475-1431-ND	7.70	6.16	5.58	SFH 221
13	1.3	34	2	900	20	120	475-1432-ND	.45	.36	.33	SFH 225 FA
	1.3	50	2	900	20	130	475-1433-ND	.46	.38	.34	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	.26	.21	.19	SFH313FA
	35	—	1	880	10	50	475-1437-ND	.29	.24	.22	SFH 300-3/4
4	35	—	1	880	10	50	475-1438-ND	.30	.25	.23	SFH 300 FA-3/4
	35	—	1	900	7/8	24	475-1440-ND	.30	.25	.23	SFH 309 FA-4/5
6	35	—	3	830	—	26	475-1453-ND	.35	.28	.26	SFH 3500-Z
	50	—	20	880	9/12	80	475-1347-ND	.94	.76	.69	BPX 38-2/3
14	50	—	20	880	12/15	30	475-1348-ND	.90	.72	.66	BPX 43-3/4
	35	—	1	830	7/9	16	475-1351-ND	1.03	.83	.75	BPY 62-3/4
15	70	1.9	3	850	11	80	475-1074-ND	.94	.76	.69	BPX43-4/5
	35	—	1	850	10	70	475-1081-ND	.26	.21	.19	SFH314
16	35	—	1	920	7/9	28	475-1445-ND	.25	.20	.18	SFH 3100 F
	35	—	3	850	10	70	475-1419-ND	.30	.25	.23	LPT 80A
18	35	—	1	860	6	150	475-1441-ND	.26	.21	.19	SFH 309 P
	35	—	1	900	6	150	475-1442-ND	.26	.21	.19	SFH 309 PFA
19	70	—	5	780	7/8	50	475-1443-ND	.30	.25	.23	SFH 310-2/3
	70	—	5	880	7/8	50	475-1444-ND	.25	.20	.18	SFH 310 FA-2/3
20	35	—	1	980	7/8	120	475-1446-ND	.25	.20	.18	SFH 320-3/4-Z
	35	—	1	860	—	120	475-2572-1-ND†	.72	.60	.48	SFH 7225-Z
21	35	—	1	860	—	120	475-2572-2-ND‡	718.74/2,000			SFH 7225-Z
	35	—	1	860	7	120	475-2570-1-ND†	.72	.60	.48	SFH 7221-Z
22	35	—	1	860	7	120	475-2570-2-ND‡	718.74/2,000			SFH 7221-Z
	35	—	1	565	500	120	475-2571-1-ND†	.72	.60	.48	SFH 7222-Z
23	35	—	1	565	500	120	475-2571-2-ND‡	718.74/2,000			SFH 7222-Z
	15	—	2	920	7	120	475-1447-ND	.48	.39	.35	SFH 3204-Z
24	35	—	1	990	7	50	475-1448-ND	.35	.28	.26	SFH 3219-Z
	35	—	1	980	7/8	120	475-1449-ND	.30	.25	.23	SFH 325-3/4-Z
25	35	—	1	980	7/8	120	475-1450-ND	.30	.25	.23	SFH 325 FA-3/4-Z
	70	—	3	850	24/34	120	475-1451-ND	.48	.39	.35	SFH 3400-2/3-Z
26	5.5	—	3	570	—	120	475-1452-1-ND†	.83	.69	.56	SFH 3410-2/3-Z
	5.5	—	3	570	—	120	475-1452-2-ND‡	827.64/2,000			SFH 3410-2/3-Z
25	35	—	5	870	13/15	40	475-1439-ND	.41	.33	.30	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.

**Free shipping on orders over £50! All prices are in British pound sterling and include duties.**

uk.digikey.com — FREEPHONE: 0-800-587-0991 • 0-800-904-7786 — FREEFAX: 0-800-587-0992 • 0-800-904-7783

(UK091) 2229

