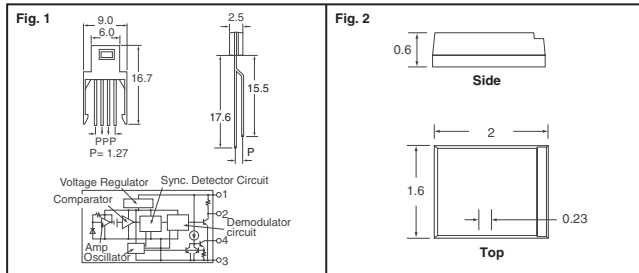


SHARP
MICROELECTRONICS
OPIC™ Light Detectors



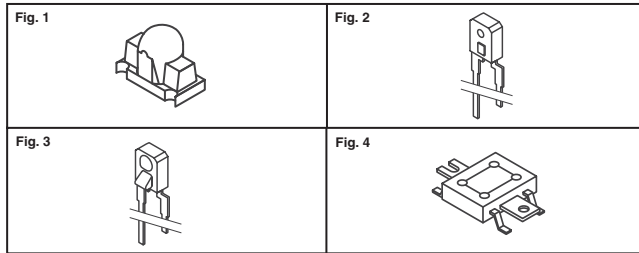
Dim in mm



Vcc (V)	Output Current (mA)	Rise/Fall Typ. (µs)	Beam Angle (2x Theta)	Peak Wavelength (nm) Typ.	Digi-Key Part No.	Price Each 1 10 100	Sharp Part No.
Fig. 1							
0.5 - 1.6	50	400/400	110	940	425-2069-5-ND§	2.72 2.24 1.82	IS471FE
Fig. 2							
-0.3 - 7.0	1	150/150 max.	110	555	425-2650-1-ND† 425-2650-2-ND‡	1.05 .88 .70 980.00/2,000	GA1A1S201WP

† Cut tape ‡ Tape and Reel § Visible light cut-off resin, black

IR Emitters, Phototransistors and Photodiodes



IR Emitters



Fig.	Forward Voltage Typ. (V)	Forward Current Max. (mA)	Optical Power Output (mW) Max.	Beam Angle (2x Theta)	Peak Wavelength (nm) Typ.	Digi-Key Part No.	Cut Tape Price Each 1 10 100	Sharp Part No.
1	1.2	50	3.0	20	940	425-1022-1-ND	.36 .30 .24	GL100MN0MP
						425-1022-2-ND‡	336.00/2,000	
						425-2706-1-ND NEW!	.48 .33 .24	GL100MN0MP1
						425-2706-2-ND‡ NEW!	252.00/1,500	
						425-1023-1-ND	.54 .45 .36	GL100MN1MP
						425-1023-2-ND‡	504.00/2,000	
1	1.2	50	3.0	20	940	425-2666-1-ND	.81 .59 .36	GL100MN1MP1
						425-2666-2-ND‡	378.00/1,500	

‡ Tape and Reel

Phototransistors

Fig.	Vceo Max. (V)	IC (mA)	Peak Sensitivity Wavelength (nm) Typ.	Rise/Fall Typ. (µs)	Beam Angle (2x Theta)	Digi-Key Part No.	Price Each 1 10 100	Sharp Part No.
1	35	20	860	400/300	30	425-2665-1-ND♦†‡	.42 .35 .28	PT100MF1MP1
						425-2665-2-ND♦‡	294.00/1,500	
		20	900	5.0/6.0	15	425-2648-1-ND♦†	.36 .30 .24	PT100MCOMP1
						425-2648-2-ND♦‡	252.00/1,500	
		20	900	5.0/6.0	30	425-1005-1-ND♦†	.36 .30 .24	PT100MCOMP
						425-1005-2-ND♦‡	336.00/2,000	
		20	910	5.0/6.0	30	425-1006-1-ND♦†Δ	.36 .30 .24	PT100MFOMP
						425-1006-2-ND♦‡	336.00/2,000	
		20	910	5.0/6.0	30	425-1007-1-ND♦†Δ	.36 .30 .24	PT100MFOMP1
						425-1007-2-ND♦‡	252.00/1,500	
2	35	20	860	3.0/3.5	70	425-2378-5-ND♦Δ	.56 .39 .28	PT4800FE000F
		20	800	3.0/3.5	20	425-2379-5-ND♦	.36 .30 .24	PT4800E0000F
3	35	20	860	3.0/3.5	26	425-2380-5-ND♦Δ	.52 .36 .26	PT480FE0000F
		50	800	80/70	26	425-1013-5-ND§	.52 .36 .26	PT481

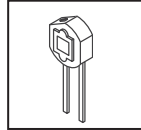
♦ RoHS Compliant † Cut Tape ‡ Tape and Reel § Transparent blue resin
Δ Visible Light cut-off resin, black ♦ Darlington

Photodiodes

Fig.	Vr Max. (V)	Short Circuit Current Is (µA) Typ.	Dark Current Id Max. (nA)	Peak Sensitivity Wavelength (nm) Typ.	Rise/Fall Typ. (ns)	Beam Angle (2x Theta)	Digi-Key Part No.	Cut Tape Price Each 1 10 100	Sharp Part No.
1	20	0.9	10	820	10	40	425-1027-1-ND♦	.36 .30 .24	PD100MCOMP
							425-1027-2-ND♦‡	336.00/2,000	
							425-1028-1-ND♦§	.36 .30 .24	PD100MFOMP
2	20	0.6	10	850	10	40	425-1028-2-ND♦‡§	336.00/2,000	
							425-2672-1-ND♦	.36 .30 .24	PD100MFOMP1
4	30	9.2	2.0	940	5	—	425-2672-2-ND♦‡	252.00/1,500	
							425-1030-5-ND†	1.11 .93 .74	PD3122F

♦ RoHS Compliant ‡ Tape and Reel † Tube § Visible Light cut-off resin, black

Blue Sensitive Photodiodes



Features:
• Spectral sensitivity characteristics akin to that of human eye • Compact flat package • Low dark current • Infrared light cut-off type

Applications:
• AE (automatic exposure) system and ES (electronic shutter) system for cameras • Stroboscopes • Precise optical instruments

Short Cir. Current Is (µA) Typ.	Dark Current Id (A) Typ.	Peak Sensitivity Wavelength (nm) Typ.	Reverse Voltage Vr (V) Max.	Active Area (mm sq.)	Digi-Key Part No.	Price Each 1 10 100	Sharp Part No.
0.16	3x10 ⁻¹²	560	10	1.55	425-2429-5-ND	1.95 1.56 1.29	BS120E0F

JST Mating Connector, Contact and Crimp Tool

Description	Digi-Key Part No.	Pricing 10 100 500	Tape & Reel Pricing‡ 13,000	JST Part No.
6-Pos., 1.5mm, Disconnectable Crimp Style ZH Connector	455-1129-ND♦	.80 6.65 26.58	—	ZHR-6
Tin-Plated Phosphor Bronze Crimp Contact, 26-28AWG	455-1130-1-ND♦†	— 1.35 5.41	93.54/M	SZH-002T-P0.5
Crimp Tool with Die for 26-28AWG Contacts	455-1131-ND	419.19/1	—	WC-491

♦ RoHS Compliant † Cut Tape ‡ For Tape and Reel part number, change 1-ND to 2-ND.

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Distance Measuring Sensors

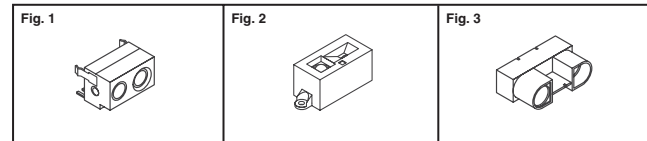


Fig.	Vcc (V) Typ.	Distance Measuring Range (cm) Typ.	Diff. of Output Voltage (V) Typ.	Output Current ICC (mA) Typ.	Output Type	Digi-Key Part No.	Price Each 1 25 50	Sharp Part No.
1	5	40	—	28	Digital	425-1810-ND	8.03 6.42 5.33	GP2Y0D340K
		5	—	10.5	Digital	425-2615-5-ND	3.25 2.60 2.28	GP2Y0D805Z0F
		10	—	10.5	Digital	425-2616-5-ND	3.25 2.60 2.28	GP2Y0D810Z0F
1	7	10	—	35	Digital	425-2657-ND	8.03 6.42 5.62	GP2Y0D310K
		4 - 30	1.6	30	Analog	425-2498-ND	52.50 42.00 36.75	GP2Y3A001K0F
2	5	20 - 150	1.6	30	Analog	425-2499-ND	52.50 42.00 36.75	GP2Y3A002K0F
		40 - 300	1.2	30	Analog	425-2500-ND	52.50 42.00 36.75	GP2Y3A003K0F
3	—	100 - 500	1.5	33	Analog	425-2506-ND	19.02 15.22 13.32	GP2Y0A700K0F

See below for JST Mating Connector

JST Mating Connector, Contact and Crimp Tool

Description	Digi-Key Part No.	Pricing 10 100 500	Tape and Reel Pricing‡ 8,000	JST Part No.
3-Pos., 2.0mm, Disconnectable Crimp Style PH Connector	455-1126-ND♦	.44 3.71 14.82	—	PHR-3
24-30AWG, Tin-Plated Phosphor Bronze Crimp Contact	455-1127-1-ND♦†	— 2.12 8.46	12.69/M	SPH-002T-P0.5S
Crimp Tool with Die for 24-30AWG Contacts	455-1128-ND	419.19/1	—	WC-240

♦ RoHS Compliant † Cut Tape ‡ For Tape and Reel part number, change 1-ND to 2-ND.

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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