



High-Luminosity (AlGaInP) Surface Mount LEDs (Taped Models Only)

(I_F = 20 mA, T_c = 25°C)

Outline dimensions (mm)	Resin type				JE		ZVJV		ZSJS		ZJJJ		ZRJR	
	Colored diffusion	Colored transparency	Colorless transparency	Milky diffusion	Yellow-green	Luminous intensity (mcd) TYP.	Amber	Luminous intensity (mcd) TYP.	Sunset orange	Luminous intensity (mcd) TYP.	Orange	Luminous intensity (mcd) TYP.	Red	Luminous intensity (mcd) TYP.
1.6 × 0.8 (t = 0.35)			●		GM1JE35200AE*1	13	GM1JV35200AE*1	18.8	GM1JS35200AE*1	19	GM1JJ35200AE*1	19	GM1JR35200AE*1	13
1.6 × 0.8 (t = 0.55)			●		GM1JE55200AE	13	GM1JV55200AE*1	16.8	GM1JS55200AE	20.9	GM1JJ55200AE	19	GM1JR55200AE	15
3.2 × 2.8 (t = 1.9)			●		-	-	GM5ZV96270A	600	-	-	-	-	GM5ZR96270A	600

*1 GM1JV35200AE series, GM1JV55200AE series: I_F = 5 mA

High-Luminosity (InGaN) Surface Mount LEDs (Taped Models Only)

(I_F = 20 mA, T_a = 25°C*2)

Outline dimensions (mm)	Resin type					BC		GC	
	Colored diffusion	Colored transparency	Colorless transparency	Milky diffusion	Blue	Luminous intensity (mcd) TYP.	Green	Luminous intensity (mcd) TYP.	
1.6 × 0.8 (t = 0.35)				●	GM1BC35372AC*1	35	GM1GC35370AC*1	80	
3.2 × 2.8 (t = 1.9)			●		GM5BC96270A	500	GM5GC96270A	1 300	

*1 GM1BC35372AC series: I_F = 5 mA

*2 GM5BC96270A series: T_c = 25°C

Surface Mount LEDs (Taped Models Only)

(I_F = 20 mA, T_a = 25°C)

Outline dimensions (mm)	Resin type				EG		HY		HS		HD	
	Colored diffusion	Colored transparency	Colorless transparency	Milky diffusion	Yellow-green	Luminous intensity (mcd) TYP.	Yellow	Luminous intensity (mcd) TYP.	Sunset orange	Luminous intensity (mcd) TYP.	Red	Luminous intensity (mcd) TYP.
1.6 × 0.8 (t = 0.55)			●		GM1EG55200A	19	GM1HY55200A	11.5	GM1HS55200A	11.4	GM1HD55200A	12.5



GM1EG55200A series
GM1JV55200AE series



GM1JV35200AE series
GM1BC35372AC
GM1GC35370AC



GM5ZV96270A series
GM5BC96270A series

Notice

In the absence of confirmation by device specification sheets, SHARP takes no responsibility for any defects that may occur in equipment using any SHARP devices shown in catalogs, data books, etc.
Except where specially indicated, models listed on this page comply with the RoHS Directive*. For details, please contact SHARP.
*RoHS Directive: Prohibits use of lead, cadmium, hexavalent chromium, mercury and specific brominated flame retardants (PBBs and PBDEs), with certain exceptions.
Contact SHARP in order to obtain the latest device specification sheets before using any SHARP device.

High-Luminosity White Surface Mount LEDs (Taped Models Only)

(Ta = 25°C*5)

Outline dimensions (mm)	Color coordinates (x, y) TYP.	BW			BN		
		White		High rendering color			
			Luminous intensity (mcd) TYP.	Color temperature (K) TYP.		Luminous intensity (mcd) TYP.	Color temperature (K) TYP.
2.8 × 1.2 (t = 0.8) Side view type	(0.30, 0.29)	GM4BW853A0A*1	1 900	–	–	–	–
		GM4BW853B0A*1	2 200	–	–	–	–
3.85 × 1.0 (t = 0.6) Side view type	(0.30, 0.29)	GM4BW653A0A*1	1 900	–	–	–	–
		GM4BW653B0A*1	2 200	–	–	–	–
	(0.29, 0.28)	–	–	–	GM4BN653C0A*1,4	1 700	–
3.2 × 2.8 (t = 1.9)	(0.31, 0.31)	GM5BW96382A*1	2 300	–	–	–	–
	(0.34, 0.36)	GM5BW96385A	2 600	–	–	–	–
	(0.29, 0.28)	GM5BW96387A	2 000	–	–	–	–
	(0.338, 0.365)	GM5BW97330A*2	6 400	5 300	–	–	–
	(0.312, 0.311)	GM5BW97332A*2	5 800	6 700	–	–	–
	(0.283, 0.262)	GM5BW97333A*2	5 100	11 500	–	–	–
	(0.3398, 0.3472)	–	–	–	GM5BN97330A*2,4	6 000	5 200
3.2 × 2.8 (t = 1.4)	(0.32, 0.33)	GM5BW94370A*3	5 200	–	–	–	–

*1 GM4BW853A0A series, GM4BW653A0A series, GM4BN653C0A, GM5BW96382A: If = 20 mA

*2 GM5BW97330A series, GM5BN97330A: If = 20 mA/chip

*3 GM5BW94370A: If = 25 mA/chip

*4 GM4BN653C0A and GM5BN97330A are high-NTSC-ratio products.

*5 GM5BW96382A, GM5BW96385A, GM5BW96387A, GM5BW97330A series, GM5BW94370A, GM5BN97330A: Tc = 25°C



High-Luminosity Surface Mount LEDs (RGB 3-color) (Taped Models Only)

(Tc = 25°C)

Outline dimensions (mm)	Resin type				WA	
	Colored diffusion	Colored transparency	Colorless transparency	Milky diffusion	Red + Green + Blue	
					Luminous intensity (mcd) TYP.	
1.6 × 1.6 (t = 0.55)				●	GM1WA55311A*1	20/70/23
3.2 × 2.8 (t = 1.4)				●	GM5WA94310A*2	1 800 [Mixed color]
				●	★GM5WA94320A*2	(2 300) [Mixed color]
5.0 × 2.5 (t = 2.5)				●	GM4WA25300A*3	2 200 [Mixed color]

*1 GM1WA55311A: If = 5 mA (Red, Green, Blue)

*2 GM5WA94310A, GM5WA94320A: If = 20 mA (Red), If = 20 mA (Green), If = 7 mA (Blue)

*3 GM4WA25300A: If = 21 mA (Red), If = 25 mA (Green), If = 7 mA (Blue)



Notice

In the absence of confirmation by device specification sheets, SHARP takes no responsibility for any defects that may occur in equipment using any SHARP devices shown in catalogs, data books, etc.

Except where specially indicated, models listed on this page comply with the RoHS Directive*. For details, please contact SHARP. *RoHS Directive: Prohibits use of lead, cadmium, hexavalent chromium, mercury and specific brominated flame retardants (PBBs and PBDEs), with certain exceptions.

Contact SHARP in order to obtain the latest device specification sheets before using any SHARP device.

ZENIGATA LEDs for Lighting (ZENIGATA is a registered trademark or a trademark of Sharp Corporation in Japan, the United States and/or other countries.)

<3 to 4W class>
(T_c = 25°C)

Outline dimensions (mm)	Model No.	Color temperature (K) TYP.	Forward voltage (V) TYP.	Forward current (mA) TYP.	Total luminous flux (lm) TYP.	Average color rendering index Ra TYP.
15.0 × 12.0 (t = 1.6)	GW5BTC27K00	2 700	10.2	360	200	85
	GW5BTC30K00	3 025			210	87
	GW5BTC35K00	3 450			220	87
	GW5BTC50K00	5 000			230	87
	GW5BTC65K00	6 500			230	85
	☆GW5BQC27K03	2 700	9.9	400	290	80
	☆GW5BQC30K03	3 025			300	83
	☆GW5BQC35K03	3 450			310	84
	☆GW5BQC40KH3	4 080			310	84
	☆GW5BQC50K03	5 000			320	85
☆GW5BQC65K03	6 500	320	84			
18.0 × 18.0 (t = 2.0)	GW5BQC15L02	2 725	10.2	360	160	85
	GW5BDC15L02	2 800			200	70
	GW5BTC15L02	3 045			190	85
	GW5BRC15L02	3 985			180	94
	GW5BWC15L02	5 000			280	60
	GW5BNC15L02	5 000			190	90
	GW5BNC15L12	6 500			190	90

<6 to 7W class>
(T_c = 25°C)

Outline dimensions (mm)	Model No.	Color temperature (K) TYP.	Forward voltage (V) TYP.	Forward current (mA) TYP.	Total luminous flux (lm) TYP.	Average color rendering index Ra TYP.
15.0 × 12.0 (t = 1.6)	GW5BTF27K00	2 700	10.2	640	355	85
	GW5BTF30K00	3 025			375	87
	GW5BTF35K00	3 450			390	87
	GW5BTF50K00	5 000			410	87
	GW5BTF65K00	6 500			410	85
	☆GW5BQF27K03	2 700	13.1	520	510	80
	☆GW5BQF30K03	3 025			525	83
	☆GW5BQF35K03	3 450			545	84
	☆GW5BQF40KH3	4 080			545	84
	☆GW5BQF50K03	5 000			560	85
☆GW5BQF65K03	6 500	560	84			
18.0 × 18.0 (t = 2.0)	GW5BQF15L0B	2 725	10.2	640	300	85
	GW5BDF15L00	2 800			400	70
	GW5BTF15L0B	3 045			360	85
	GW5BRF15L0B	3 985			340	94
	GW5BWF15L00	5 000			540	60
	GW5BNF15L00	5 000			350	90
	GW5BNF15L10	6 500			350	90

Notice

In the absence of confirmation by device specification sheets, SHARP takes no responsibility for any defects that may occur in equipment using any SHARP devices shown in catalogs, data books, etc.
 Except where specially indicated, models listed on this page comply with the RoHS Directive*. For details, please contact SHARP.
 *RoHS Directive: Prohibits use of lead, cadmium, hexavalent chromium, mercury and specific brominated flame retardants (PBBs and PBDEs), with certain exceptions.
 Contact SHARP in order to obtain the latest device specification sheets before using any SHARP device.

<10W class>

(Tc = 25°C)

Outline dimensions (mm)	Model No.	Color temperature (K) TYP.	Forward voltage (V) TYP.	Forward current (mA) TYP.	Total luminous flux (lm) TYP.	Average color rendering index Ra TYP.
15.0 × 12.0 (t = 1.6)	☆GW5BTJ27K03	2 700	(19.6)	(480)	610	85
	☆GW5BTJ30K03	3 025			630	87
	☆GW5BTJ35K03	3 450			650	87
	☆GW5BTJ40K03	4 080			670	87
	☆GW5BTJ50K03	5 000			690	87
	☆GW5BTJ65K03	6 500			690	85



GW5BTC27K00 series



GW5BTF27K00 series



GW5BWC15L02 series
GW5BWF15L00 series



GW5BTJ27K03 series

■ Surface Mount LEDs for Lighting (Taped Models Only)

(Tc = 25°C)

Outline dimensions (mm)	Model No.	Color temperature (K) TYP.	Forward voltage (V) TYP.	Forward current (mA) TYP.	Total luminous flux (lm) TYP.	Average color rendering index Ra TYP.
2.8 × 2.8 (t = 1.9)	GM2BB27BMAC	2 725	3.25	100	22	85
	GM2BB30BMAC	3 045			23	85
	GM2BB35BMAC	3 465			24	85
	GM2BB40BMAC	3 985			24	85
	GM2BB45BMAC	4 503			25	85
	GM2BB50BMAC	5 028			26	85
	GM2BB57BMAC	5 665			25	85
	GM2BB65BMAC	6 530			24	85
	GM2BB27BMOC	2 725			3.25	150
	GM2BB30BMOC	3 045	35	85		
	GM2BB35BMOC	3 465	36	85		
	GM2BB40BMOC	3 985	37	85		
	GM2BB45BMOC	4 503	38	85		
	GM2BB50BMOC	5 028	39	85		
	GM2BB57BMOC	5 665	38	85		
	GM2BB65BMOC	6 530	37	85		

(Tc = 25°C)

Outline dimensions (mm)	Model No.	Color temperature (K) TYP.	Forward voltage (V) TYP.	Forward current (mA) TYP.	Luminous intensity (mcd) TYP.	Average color rendering index Ra TYP.
3.2 × 2.8 (t = 1.9)	GM5SAE27P0A	2 700	3.2	20	2 100	85
	GM5SAE30P0A	3 000			1 900	85
	GM5SAE35P0A	3 500			2 100	83
	GM5SAE40P0A	4 000			2 100	83
	GM5SAE45P0A	4 500			2 200	83
	GM5SAE50P0A	5 000			2 200	83
	GM5SAE57P0A	5 700			2 200	80
	GM5SAE65P0A	6 500			2 200	80

Notice

In the absence of confirmation by device specification sheets, SHARP takes no responsibility for any defects that may occur in equipment using any SHARP devices shown in catalogs, data books, etc.
 Except where specially indicated, models listed on this page comply with the RoHS Directive*. For details, please contact SHARP.
 *RoHS Directive: Prohibits use of lead, cadmium, hexavalent chromium, mercury and specific brominated flame retardants (PBBs and PBDEs), with certain exceptions.
 Contact SHARP in order to obtain the latest device specification sheets before using any SHARP device.

☆New product
★Under development

■ Surface Mount LEDs for Lighting (RGB 3-color) (Taped Models Only)

(I_F = 20 mA/chip, T_c = 25°C)

Outline dimensions (mm)	Model No.	Radiation color	Luminous intensity (mcd) TYP.
3.2 × 2.8 (t = 1.4)	☆GM5WA94315A	Red	(680)
		Green	(1 500)
		Blue	(450)

GM2BB27BM0C series
GM2BB27BMAC series

GM5SAE27P0A series



GM5WA94315A

■ LEDs for LCD Backlight

(T_c = 25°C)

Outline dimensions (mm)	Model No.	Color coordinates (x, y) TYP.	Forward voltage (V) TYP.	Forward current (mA) TYP.	Total luminous flux (lm) TYP.
2.8 × 2.8 (t = 1.9)	★GM2BB0CD30E	(0.268, 0.238)	10.65	60	45
	★GM2BB0CF20E	(0.268, 0.238)	7.35	75	36
	★GM2BB0CF20C	(0.264, 0.235)	3.55	120	30

GM2BB0CD30E
GM2BB0CF20E
GM2BB0CF20C**Notice**

In the absence of confirmation by device specification sheets, SHARP takes no responsibility for any defects that may occur in equipment using any SHARP devices shown in catalogs, data books, etc.
Except where specially indicated, models listed on this page comply with the RoHS Directive*. For details, please contact SHARP.
*RoHS Directive: Prohibits use of lead, cadmium, hexavalent chromium, mercury and specific brominated flame retardants (PBBs and PBDEs), with certain exceptions.
Contact SHARP in order to obtain the latest device specification sheets before using any SHARP device.



☆New product
★Under development



■ Laser Diodes




◆ Model Configurations

• For applications other than optical discs

Wavelength (nm)	Absolute maximum ratings (mW)*1	Package	
		 ø5.6 mm Metal type	 ø3.3 mm Metal type
660 band	10	–	GH06510F4A
785 band	10	GH07810C2K	–
	25	GH07825C2K	–

*1 The absolute maximum ratings are the limits that are not to be exceeded under any condition whatsoever, whether in testing or in actual use.

• For optical disc use*3

Wavelength (nm)	Absolute maximum ratings (mW)*1	Package		
		 ø5.6 mm Metal type	 ø3.3 mm Metal type	 1.8 mm t Resin type
405 band	20	GH04020A2G	GH04020A4G	–
	210*2	GH04P21A2G	–	–
	250*2	☆GH04P25A2G	☆GH04P25A4G	–
660 band	240*2	GH06P24A2C	–	GH16P24A8C
	350*2	–	–	GH16P35A8C
	400*2	–	–	☆GH16P40A8C
785 band	240*2	GH07P24C1C	GH07P24C4C	–
	280*2	★GH07P28F1C	★GH07P28F4C	–

*1 The absolute maximum ratings are the limits that are not to be exceeded under any condition whatsoever, whether in testing or in actual use.

*2 Optical power output MAX. (mW)

*3 New models for optical disc use are introduced frequently, and it is possible the model you wish to order may no longer be in production. Sample sales may not be available, either. We ask for your understanding in this matter.

Notice

In the absence of confirmation by device specification sheets, SHARP takes no responsibility for any defects that may occur in equipment using any SHARP devices shown in catalogs, data books, etc. Except where specially indicated, models listed on this page comply with the RoHS Directive*. For details, please contact SHARP. *RoHS Directive: Prohibits use of lead, cadmium, hexavalent chromium, mercury and specific brominated flame retardants (PBBs and PBDEs), with certain exceptions. Contact SHARP in order to obtain the latest device specification sheets before using any SHARP device.

☆New product
★Under development



◆ Specifications

• Laser diodes lineup for applications other than optical discs

(Tc = 25°C)

Model No.	Wave-length (nm)	Absolute maximum ratings*1		Features	Applications	Terminal connections
		CW (Continuous wave)				
GH06510F4A	660 band	10		ø3.3 mm CAN package, operating temperature: 70°C MAX., with built-in monitor PD	Bar code reader, laser displacement gauge, etc.	A
GH07810C2K	785 band	10		ø5.6 mm CAN package, operating temperature: 60°C MAX., with built-in monitor PD	Printer, copier, complex machine	D
GH07825C2K		25		ø5.6 mm CAN package, operating temperature: 60°C MAX., with built-in monitor PD	Printer, copier, complex machine	

• Laser diodes lineup for optical disc use*2

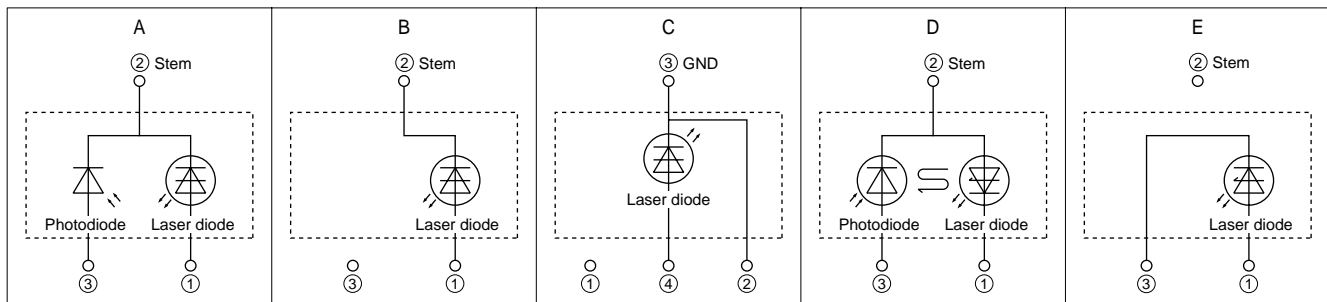
(Tc = 25°C)

Model No.	Wave-length (nm)	Absolute maximum ratings*1		Features	Applications	Terminal connections
		CW (Continuous wave)	Pulse			
GH04020A2G	405 band	20	—	ø5.6 mm CAN package, operating temperature: 70°C MAX.	Blu-ray disc playback	E
GH04020A4G		20	—	ø3.3 mm CAN package, operating temperature: 70°C MAX.	Blu-ray disc playback	E
GH04P21A2G		105	210	ø5.6 mm CAN package, operating temperature: 70°C MAX. (pulse drive)	Blu-ray disc recording	E
☆GH04P25A2G		125	250	ø5.6 mm CAN package, operating temperature: 80°C MAX. (pulse drive)	Blu-ray disc recording	E
☆GH04P25A4G		125	250	ø3.3 mm CAN package, operating temperature: 80°C MAX. (pulse drive)	Blu-ray disc recording	E
GH06P24A2C	660 band	100	240	ø5.6 mm CAN package, operating temperature: 75°C MAX. (pulse drive)	Double-layer DVD 4× writing	B
GH16P24A8C		100	240	1.8 mm frame package, operating temperature: 80°C MAX. (pulse drive)	Double-layer DVD 4× writing	C
GH16P35A8C		125	350	1.8 mm frame package, operating temperature: 80°C MAX. (pulse drive)	Double-layer DVD 8× to 16× recording	
☆GH16P40A8C		135	400	1.8 mm frame package, operating temperature: 80°C MAX. (pulse drive)	Double-layer DVD 8× to 16× recording	
GH07P24C1C	785 band	120	240	ø5.6 mm CAN package, operating temperature: 75°C MAX. (pulse drive)	CD-R/RW (MAX. 48× to 52× writing)	B
★GH07P28F1C		150	280	ø5.6 mm CAN package, operating temperature: 80°C MAX. (pulse drive)	CD-R/RW (MAX. 48× to 52× writing)	
GH07P24C4C		120	240	ø3.3 mm CAN package, operating temperature: 75°C MAX. (pulse drive)	CD-R/RW (H/H, slim dual-purpose) (MAX. 48× to 52× writing)	
★GH07P28F4C		150	280	ø3.3 mm CAN package, operating temperature: 80°C MAX. (pulse drive)	CD-R/RW (H/H, slim dual-purpose) (MAX. 48× to 52× writing)	

*1 The absolute maximum ratings are the limits that are not to be exceeded under any condition whatsoever, whether in testing or in actual use. For recommended optical power output, consult the specification sheet or data sheet for each model.

*2 New models for optical disc use are introduced frequently, and it is possible the model you wish to order may no longer be in production. Sample sales may not be available, either. We ask for your understanding in this matter.

• Terminal Connections



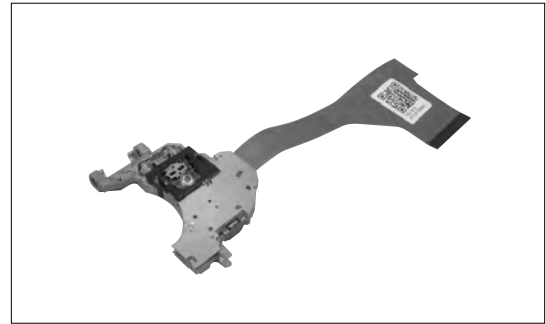
Notice

In the absence of confirmation by device specification sheets, SHARP takes no responsibility for any defects that may occur in equipment using any SHARP devices shown in catalogs, data books, etc. Except where specially indicated, models listed on this page comply with the RoHS Directive*. For details, please contact SHARP. *RoHS Directive: Prohibits use of lead, cadmium, hexavalent chromium, mercury and specific brominated flame retardants (PBBs and PBDEs), with certain exceptions. Contact SHARP in order to obtain the latest device specification sheets before using any SHARP device.

■ Slim DVD Super-Multi Drive Pickup <DD-117>

◆ Features

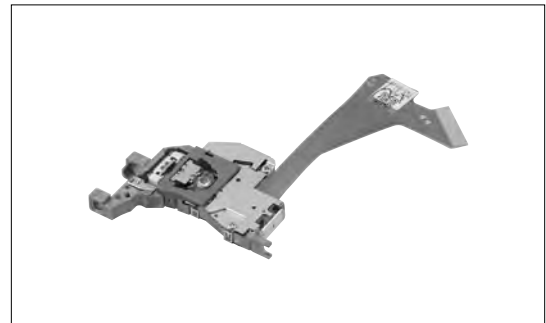
- Thin type pickup compatible with half-inch-height drive (12.7 mm thickness)
- Playback speed: 8× (DVD-ROM), 24× (CD-ROM)
- Recording speed: 8× (DVD±R, +RW, ±R/+RW(DL))
6× (DVD-RW, -RW(DL))
5× (DVD-RAM)
24× (CD-R/RW)
- Outline dimensions: W 35.6 × H 7.3 × D 48.7 (mm)
- Weight: Approx. 13.5 g



■ DVD Pickup for Automotive Use <HPD-61>

◆ Features

- Compact, thin (7.3 mm) pickup
- Playable disk: DVD-ROM, CD-ROM
- Operating temperature: -20 to +80°C
- Outline dimensions: W 30.2 × H 7.3 × D 48.7 (mm)
- Weight: Approx. 13.5 g



Notice

In the absence of confirmation by device specification sheets, SHARP takes no responsibility for any defects that may occur in equipment using any SHARP devices shown in catalogs, data books, etc. Contact SHARP in order to obtain the latest device specification sheets before using any SHARP device.