

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

<6W class>

(T_j = 90°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 = 1.4)	☆GW6BMQ27HD6	2 700	36.5	160	605	83
	☆GW6BMQ30HD6	3 000			645	
	☆GW6BMQ40HD6	4 000			670	
	☆GW6BGQ27HD6	2 700			510	93
	☆GW6BGQ30HD6	3 000			545	

<7W class>

(T_j = 90°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 = 1.4)	☆GW6BMG27HD6	2 700	34.5	200	830	83
	☆GW6BMG30HD6	3 000			885	
	☆GW6BMG40HD6	4 000			925	
	☆GW6BGG27HD6	2 700			700	93
	☆GW6BGG30HD6	3 000			750	

<9W class>

(T_j = 90°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 = 1.4)	☆GW6BMX27HD6	2 700	17.3	500	1 000	83
	☆GW6BMX30HD6	3 000			1 070	
	☆GW6BMX40HD6	4 000			1 115	
	☆GW6BGX27HD6	2 700			845	93
	☆GW6BGX30HD6	3 000			905	

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<10W class>

(T_j = 90°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 = 1.4)	☆GW6BMW27HD6	2 700	34.5	300	1 200	83
	☆GW6BMW30HD6	3 000			1 280	
	☆GW6BMW40HD6	4 000			1 335	
	☆GW6BGW27HD6	2 700			1 010	93
	☆GW6BGW30HD6	3 000			1 085	



Mini ZENIGATA LEDs

<Natural toning type>

(T_j = 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)	☆GW6NGWJCS0C	2 000	31	50	105	94
		3 000	36.5	350	1 000	92

Mini ZENIGATA LEDs
(Natural toning type)**Notice**

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■ Mega ZENIGATA LEDs

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<25W class>

(T_j = 90°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.
24.0 × 20.0 (t = 1.45)	☆GW6DMC30XF6	3 000	34.5	700	3 170	83
	☆GW6DGC30XF6				2 690	93

<35W class>

(T_j = 90°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.
24.0 × 20.0 (t = 1.45)	☆GW6DMD30XF6	3 000	34.5	950	4 190	83
	☆GW6DGD30XF6				3 560	93



Mega ZENIGATA LEDs

<Natural toning type>

(T_j = 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.
24.0 × 20.0 (t = 1.6)	☆GW6TGBJC50C	2 000	30.4	80	155	94
		3 000	35.8	950	2 860	92



Mega ZENIGATA LEDs
(Natural toning type)

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■ TIGER ZENI LEDs

(T_j = 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.
24.0 × 20.0 (t = 1.8)	GW6TGCBG40C	2 700	37	700	1 840	96
		5 700	38		2 170	90



TIGER ZENI LEDs

■ LEDs for Medium- and Small-sized LCD Backlights (High Color Reproduction Models)

(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.	Color reproduction
3.0 × 0.84 (t = 0.42)	☆GM4BN4B5S0A	0.280, 0.270	2.9	20	7.3	sRGB=120% (CIE1976)*1
3.0 × 0.85 (t = 0.40)	★GM4BN5B6S0A				7.3	
3.0 × 0.84 (t = 0.6)	☆GM4BN7B5S0A				8.3	
3.8 × 1.0 (t = 0.6)	☆GM4BN6D5S0A				8.4	

*1 Evaluated using a general LCD panel. Values may differ depending on specific LCD panel characteristics.



GM4BN4B5S0A



GM4BN5B6S0A



GM4BN7B5S0A



GM4BN6D5S0A

■ LEDs for Large-sized LCD Backlights (High Color Reproduction Models)

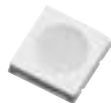
(T_c = 25°C)

Outline dimensions (mm)	Model No.	Color coordinates (x, y) TYP.	Forward voltage (V) TYP.	Forward current (mA) TYP.	Total luminous flux (lm) TYP.	Color reproduction
4.2 × 1.4 (t = 0.8)	GM5FV1ZP10A	0.295, 0.275	3.0	80	26	sRGB=120% (CIE1976)*1
3.7 × 3.5 (t = 0.8)	GM5F22BH20A	0.251, 0.210	6.51	160	86	
7.0 × 2.0 (t = 0.85)	GM5FQ0BH20A	0.266, 0.224	6.11	130	76.5	

*1 Evaluated using a general LCD panel. Values may differ depending on specific LCD panel characteristics.



GM5FV0AP10A



GM5F22BH20A



GM5FQ0BH20A

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■ Laser Diodes

◆ Model Configurations



• Laser diodes lineup for applications other than optical discs

Wavelength (nm)	Absolute maximum ratings (mW) ^{*1}	Oscillation transverse mode ^{*2}	Package				
			 ø5.6 mm Can type	 ø3.8 mm Can type	 ø3.3 mm Can type	 1.8 mm t Frame type	 1.2 mm t Frame type
638 band	185	SM	☆GH0631IA2G series	—	—	—	—
	210	SM	★GH0632BA2G	—	—	—	—
	160	SM	—	★GH0631GA5G series	—	—	—
	7 / 10	SM	—	—	—	—	★GH163xxxUK series
642 band	150	SM	GH0641FA2G series	—	—	—	—
650 band	220	SM	★GH0652CA2G series	—	—	—	—
660 band	10	SM	—	—	GH06510F4A	—	—
	100	SM	—	—	—	★GH16P32B8C	—
	100	SM	GH06P25A2C	—	—	—	—
750 band	700	MM	★GH0752WA2G	—	—	—	—
785 band	25	SM	GH07825D2K	—	—	—	—
	155	SM	—	—	GH07P28F4C	—	—
	2ch	SM	GH3S225D2B	—	—	—	—
830 band	210	SM	☆GH0832BA2 series	—	★GH0832BA4C	—	—
	700	MM	★GH0832WA2G	—	—	—	—
850 band	700	MM	★GH0852WA2G	—	—	—	—
940 band	285	MM	☆GH0942IA2CC	—	—	—	—
	500	MM	★GH0942WA2G	—	—	—	—

^{*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} SM: Single Mode
MM: Multi Mode

• Eye safety LASER

Wavelength (nm)	Absolute maximum ratings (mW) ^{*1}	Oscillation transverse mode ^{*2}	Package	
			 ø5.6 mm Eye-safe type	 3.5 x 3.5 mm Eye-safe SMD type
750 band	700	MM	★GH4757AxTG series	★GH4757AxAS series
	200	MM	—	★GH4752AxAS series
830 band	700	MM	☆GH4837AxTG series	★GH4837AxAS series
	200	MM	—	★GH4832AxAS series
850 band	700	MM	★GH4857AxTG series	★GH4857AxAS series
	200	MM	—	★GH4852AxAS series
940 band	500	MM	★GH4945AxTG series	★GH4945AxAS series
	200	MM	—	★GH4942AxAS series

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• Laser diodes lineup for optical disc use*2

Wavelength (nm)		Absolute maximum ratings (mW)*1		Package		
				 1.8 mm t Frame type	 4.8 mm t Can type	 4.8 mm t Frame type
Dual- wavelength	660 band	CW (Continuous wave)	Pulse	GH33235A8C	–	–
	785 band	90	320			
	660 band	160	350	–	GH90505 series	–
	785 band	6.3	–			
785 band		5.7	–	–	–	GH6CD05 series
		4.3	–			

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◆ Specifications

• Laser diodes lineup for applications other than optical discs

(T_c = 25°C)

Model No.	Wave-length (nm)	Absolute maximum ratings*1 (mW)	Operating temperature (°C)	Package size	Built-in monitor PD	Eye-safe laser	Terminal connections	Applications
		25°C, CW (continuous wave)						
☆GH0631IA2G series	638 band	185	−10 to +65	ø5.6 mm CAN	—	—	9	Display, etc.
★GH0632BA2G series		210	−40 to +85	ø5.6 mm CAN	—	—	9	
★GH0631GA5G series		160	−10 to +60	ø3.8 mm CAN	—	—	8	
★GH163xxUK series		7 / 10	−10 to +50	1.2 mm frame	○	—	10	
GH0641FA2G series	642 band	155	−10 to +60	ø5.6 mm CAN	—	—	8	Display, etc.
★GH0652CA2G series	650 band	220	−40 to +90	ø5.6 mm CAN	—	—	9	Display, etc.
GH06510F4A	660 band	10	−10 to +70	ø3.3 mm CAN	○	—	1	Bar code reader, laser displacement gauge, etc.
★GH16P32B8C		100	−10 to +70	1.8 mm frame	—	—	6	Display, etc.
GH06P25A2C			−10 to +70	ø5.6 mm CAN	—	—	3	
★GH0752WA2G	750 band	700	−10 to +70	ø5.6 mm CAN	—	—	8	Various types of sensors, etc.
★GH4757AxTG series			tbd to +70		—	○	8	
★GH4757AxAS series			tbd to +70	3.5 × 3.5 mm SMD	—	○	11	
★GH4752AxAS series		200	tbd to +70		—	○	11	
GH07825D2K	785 band	25	−10 to +60	ø5.6 mm CAN	○	—	4	Printer, copier, MFP
GH07P28F4C		155	−10 to +70	ø3.3 mm CAN	—	—	3	Various types of sensors, etc.
GH3S225D2B		25 × 2	−10 to +60	ø5.6 mm CAN	○	—	5	Printer, copier, MFP
☆GH0832BA2C	830 band	210	−10 to +70	ø5.6 mm CAN	—	—	3	Various types of sensors, etc.
☆GH0832BA2K			−10 to +70		○	—	4	
★GH0832BA4C			−10 to +70	ø3.3 mm CAN	—	—	3	
★GH0832WA2G		700	−10 to +70	ø5.6 mm CAN	—	—	8	
☆GH4837AxTG series			tbd to +70		—	○	8	
★GH4837AxAS series			tbd to +70	3.5 × 3.5 mm SMD	—	○	11	
★GH4832AxAS series		200	tbd to +70		—	○	11	
★GH0852WA2G	850 band	700	−10 to +70	ø5.6 mm CAN	—	—	8	Various types of sensors, etc.
★GH4857AxTG series			tbd to +70		—	○	8	
★GH4857AxAS series			tbd to +70	3.5 × 3.5 mm SMD	—	○	11	
★GH4852AxAS series		200	tbd to +70		—	○	11	
☆GH0942IA2CC	940 band	285	−10 to +65	ø5.6 mm CAN	—	—	3	Various types of sensors, etc.
★GH0942WA2G		500	−10 to +70		—	—	8	
★GH4945AxTG series			tbd to +70		—	○	8	
★GH4945AxAS series			tbd to +70	3.5 × 3.5 mm SMD	—	○	11	
★GH4942AxAS series		200	tbd to +70		—	○	11	

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• Laser diodes lineup for optical disc use*2

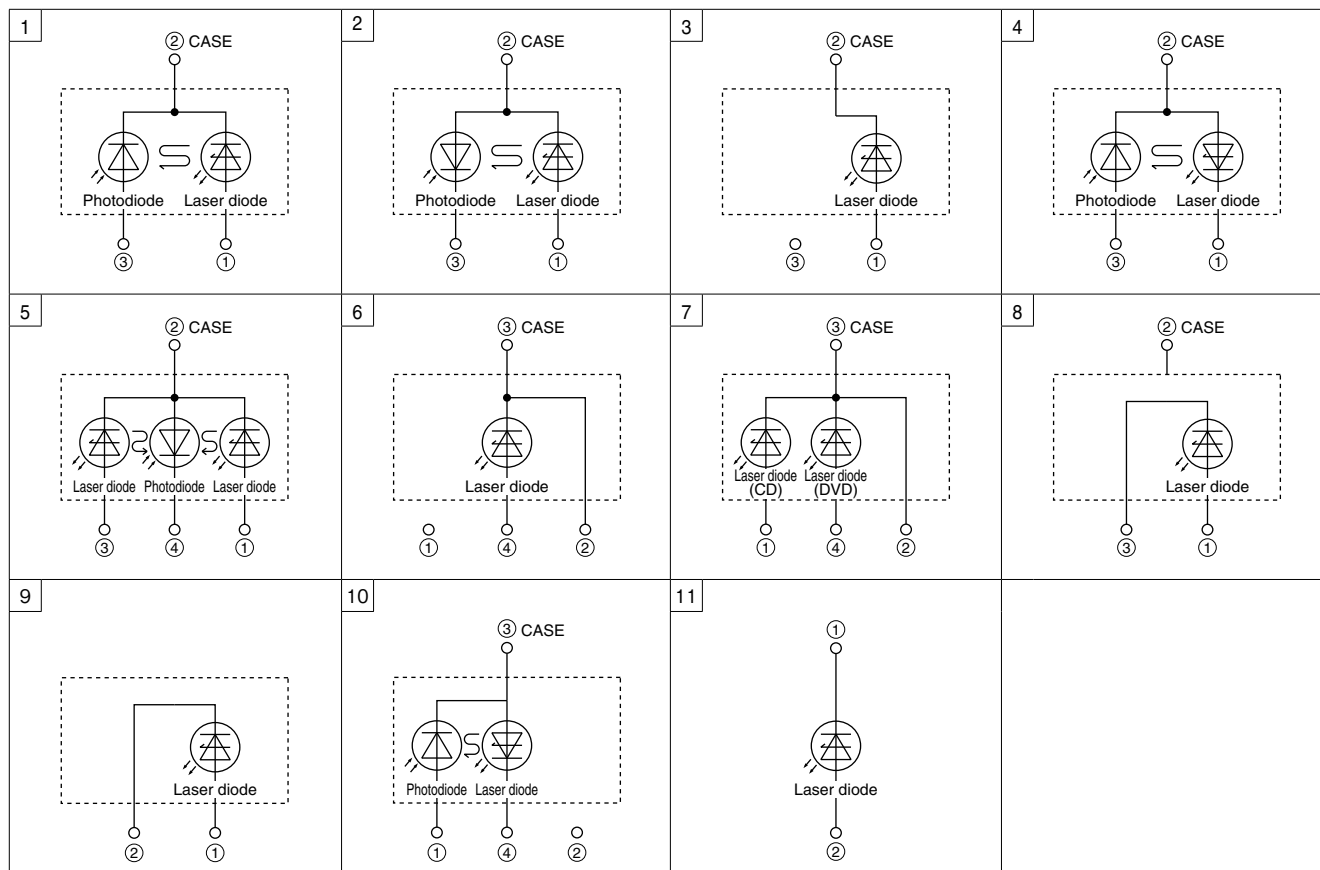
(Tc = 25°C)

Model No.	Wave-length (nm)	Absolute maximum ratings ^{*1} (mW)		Operating temperature (°C)	Package size	Built-in monitor PD	Eye-safe laser	Terminal connections	Applications
		CW (Continuous wave)	Pulse						
GH33235A8C	660 band	90	320	-10 to +80 (pulse drive)	1.8 mm frame	-	-	7	Double-layer DVD 8x to 16x recording
	785 band	160	350						CD-R/RW (MAX. 48x to 52x recording)
GH90505 series	660 band	6.3	-	-10 to +80	4.8 mm CAN	○	-	-	DVD players
	785 band	5.7	-						CD players
GH6CD05 series	785 band	4.3	-	-10 to +80	4.8 mm frame	○	-	-	CD players

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• Terminal Connections



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