HIGH-LUMINOSITY WHITE SURFACE MOUNT LEDs / HIGH-LUMINOSITY SURFACE MOUNT LEDs (RGB 3-COLOR)

☆New product
★Under development

■ High-Luminosity White Surface Mount LEDs

(Tc = 25°C*1)

Outline dimensions (mm)	Model No.	Color coordinates (x, y) TYP.	Forward voltage (V) TYP.	Forward current (mA) TYP	Luminous intensity (mcd) TYP.
3.8 × 1.0 (t = 0.6) Side view type	GM4BN663F0A	(0.300, 0.295)	3.1	20	2 400
	☆GM4BN663Q0A	(0.2886, 0.2776)	3.0	20	2 800
	☆GM4BN66360A	(0.2886, 0.2776)	3.0	20	2 900
3.2 × 3.1 (t = 0.65)	☆GM5BN98310A	(0.29, 0.28)	3.2	20	2 000
	☆GM5BN98320A		3.2	40	3 900
	☆GM5BN98330A		3.2	60	5 600
3.2 × 2.8 (t = 1.9)	★GM5BN96312A	(0.31, 0.31)	(3.2)	(20)	(2 500)
	★GM5BN96317A	(0.29, 0.28)	(3.2)	(20)	(2 300)

*1 GM4BN663F0A, GM4BN663Q0A: Ta = 25°C

GM4BN663F0A
GM4BN663Q0A
GM4BN66360A

GM5BN98310A
GM5BN98320A
GM5BN98330A

GM5BN96312A
GM5BN96317A

■ High-Luminosity Surface Mount LEDs (RGB 3-Color)

(Tc = 25°C)

Outline dimensions (mm)	Model No.	Radiation color	Forward voltage (V) TYP.	Forward current (mA) TYP	Mixed color luminous intensity	
					(mcd) TYP.	IF (mA)
3.2 × 3.1 (t = 0.65)	GM5WA98330A	Blue	3.2	20	2 300	10
		Green	3.2	20		20
		Red	2.2	20		20

GM5WA98330A

Notice
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☆New product

RoHS

■ PICO ZENIGATA LEDs

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

<0.2W 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.
2.8 × 2.8 (t = 1.9)	☆GM2BB27QT1C	2 700	2.95	50	16.5	83
	☆GM2BB30QT1C	3 000			17.0	
	☆GM2BB35QT1C	3 500			18.0	
	☆GM2BB40QT1C	4 000			19.0	
	☆GM2BB50QT1C	5 000			19.5	
	☆GM2BB57QT1C	5 700			19.5	
	☆GM2BB65QT1C	6 500			18.5	
	☆GM2BB50GT1C	5 000			21.5	70

<0.3W 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.
2.8 × 2.8 (t = 1.9)	☆GM2BB27QB2C	2 700	2.95	100	31.0	83
	☆GM2BB30QB2C	3 000			32.0	
	☆GM2BB35QB2C	3 500			34.0	
	☆GM2BB40QB2C	4 000			35.0	
	☆GM2BB50QB2C	5 000			37.0	
	☆GM2BB57QB2C	5 700			37.0	
	☆GM2BB65QB2C	6 500			35.0	

<0.5W 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.
2.8 × 2.8 (t = 1.9)	☆GM2BB27QS1C	2 700	3.15	150	48.0	83
	☆GM2BB30QS1C	3 000			50.0	
	☆GM2BB35QS1C	3 500			52.0	
	☆GM2BB40QS1C	4 000			54.0	
	☆GM2BB50QS1C	5 000			57.0	
	☆GM2BB57QS1C	5 700			57.0	
	☆GM2BB65QS1C	6 500			54.0	

PICO ZENIGATA LEDs
0.2 to 0.6W class

ZENIGATA LEDs FOR LIGHTING

☆New product
★Under development

RoHS

<0.6W 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.
2.8 × 2.8 (t = 1.9)	☆GM2BB27QT4C	2 700	5.95	100	57.0	80
	☆GM2BB30QT4C	3 000			60.0	
	☆GM2BB35QT4C	3 500			62.0	
	☆GM2BB40QT4C	4 000			65.0	
	☆GM2BB50QT4C	5 000			68.0	
	☆GM2BB57QT4C	5 700			68.0	
	☆GM2BB65QT4C	6 500			65.0	
	☆GM2BB50GT4C	5 000			78.0	70
	☆GM2BB27QT4E	2 700	11.90	50	57.0	80
	☆GM2BB30QT4E	3 000			60.0	
	☆GM2BB35QT4E	3 500			62.0	
	☆GM2BB40QT4E	4 000			65.0	
	☆GM2BB50QT4E	5 000			68.0	
	☆GM2BB57QT4E	5 700			68.0	
	☆GM2BB65QT4E	6 500			65.0	
	☆GM2BB50GT4E	5 000			78.0	70

<0.9W 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.
3.2 × 3.2 (t = 2.1)	★GM2AA27QV6F	(2 700)	(5.95)	(150)	(89.0)	80
	★GM2AA30QV6F	(3 000)			(93.0)	
	★GM2AA35QV6F	(3 500)			(97.5)	
	★GM2AA40QV6F	(4 000)			(102.0)	
	★GM2AA50QV6F	(5 000)			(107.0)	
	★GM2AA50GV6F	(5 000)			(120.0)	70

PICO ZENIGATA LEDs
0.2 to 0.6W class

PICO ZENIGATA LEDs
0.9W class

RoHS

■ PETIT ZENIGATA LEDs

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<4W 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.
12.0 × 8.0 (t = 1.8)	GW5SMB27P0C	2 700	10.3	350	260	82
	GW5SMB30P0C	3 000			280	
	GW5SMB40P0C	4 000			300	
	GW5SMB50P0C	5 000			310	
	GW5SMB60P0C	6 000			310	
	GW5SMC27P05	2 700	9.8	400	280	80
	GW5SMC30P05	3 000			300	
	GW5SMC40P05	4 000			300	
	GW5SMC50P05	5 000			320	

<5W 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.
12.0 × 8.0 (t = 1.8)	GW5SMD27P05	2 700	9.6	500	370	80
	GW5SMD30P05	3 000			400	
	GW5SMD40P05	4 000			400	
	GW5SMD50P05	5 000			430	
	GW5SMC27P0C	2 700	10.3	500	350	82
	GW5SMC30P0C	3 000			380	
	GW5SMC40P0C	4 000			400	
	GW5SMC50P0C	5 000			410	
	GW5SMC60P0C	6 000			410	
	GW5SMM27P0C	2 700	30.5	170	375	
	GW5SMM30P0C	3 000			405	
	GW5SMM40P0C	4 000			435	
	GW5SMM50P0C	5 000			450	
	GW5SMM60P0C	6 000			450	
	GW5SMQ27P05	2 700	40.0	140	390	80
	GW5SMQ30P05	3 000			420	
	GW5SMQ40P05	4 000			450	
	GW5SMQ50P05	5 000			450	

PETIT ZENIGATA LEDs

RoHS

■ MINI ZENIGATA LEDs

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<4W 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)	GW5BMC27KG4	2 700	9.6	400	300	82
	GW5BMC30KG4	3 000			310	
	GW5BMC40KG4	4 000			330	
	GW5BMC50KG4	5 000			340	
	GW5BMC65KG4	6 500			340	

<6W 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)	GW5BMF27K04	2 700	12.3	520	520	82
	GW5BMF30K04	3 000			535	
	GW5BMF40K04	4 000			570	
	GW5BMF50K04	5 000			585	
	GW5BMF65K04	6 500			585	

<9W 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)	GW5BMJ27K04	2 700	18.6	480	720	82
	GW5BMJ30K04	3 000			740	
	GW5BMJ40K04	4 000			780	
	GW5BMJ50K04	5 000			800	
	GW5BMJ65K04	6 500			800	

MINI ZENIGATA LEDs

※ For the **MINI ZENIGATA LEDs** the shape of the light-emitting part varies according to model.

☆New product

■ MEGA ZENIGATA LEDs

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<15W 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.
24.0 × 20.0 (t = 1.8)	☆GW6DMA27NFC	2 700	37	400	1 400	83
	☆GW6DMA30NFC	3 000			1 450	
	☆GW6DMA40NFC	4 000			1 580	82
	☆GW6DMA50NFC	5 000			1 600	
	☆GW6DMA60NFC	6 000			1 600	
	☆GW6DGA27NFC	2 700			1 100	93
	☆GW6DGA30NFC	3 000			1 210	
	☆GW6DGA40NFC	4 000			1 270	92
	☆GW6DGA50NFC	5 000			1 300	90

<25W 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.
24.0 × 20.0 (t = 1.8)	☆GW6DMC27NFC	2 700	37	700	2 390	83
	☆GW6DMC30NFC	3 000			2 450	
	☆GW6DMC40NFC	4 000			2 650	82
	☆GW6DMC50NFC	5 000			2 700	
	☆GW6DMC65NFC	6 500			2 700	
	☆GW6DGC27NFC	2 700			1 990	93
	☆GW6DGC30NFC	3 000			2 020	
	☆GW6DGC40NFC	4 000			2 120	92
	☆GW6DGC50NFC	5 000			2 160	90

<50W 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.
24.0 × 20.0 (t = 1.8)	☆GW6DME27NFC	2 700	50	950	4 300	83
	☆GW6DME30NFC	3 000			4 430	
	☆GW6DME40NFC	4 000			4 580	82
	☆GW6DME50NFC	5 000			4 880	
	☆GW6DME65NFC	6 500			4 880	
	☆GW6DGE27NFC	2 700			3 590	93
	☆GW6DGE30NFC	3 000			3 670	
	☆GW6DGE40NFC	4 000			3 850	92
	☆GW6DGE50NFC	5 000			3 900	90

MEGA ZENIGATA LEDs

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ZENIGATA LEDs FOR LIGHTING / SURFACE LIGHT SOURCE LEDs

☆New product
★Under development

■ TIGER ZENI LEDs

(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.
24.0 × 20.0 (t = 1.8)	★GW6TGCBG4FD	(2 700 (warm white))	(36.5)	(700)	(1 840)	(94)
		(5 700 (natural white))	(37.5)	(700)	(2 000)	(90)
		(3 800 (mixed))	(35.5)	(700 (total))	(2 070)	(93)

TIGER ZENI LEDs

■ Surface Light Source LEDs

(Tc = 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)	GM2BB0CH10A	(0.273, 0.244)	3.5	150	36.9
	☆GM2BB1CH20E		6.45	85	47.0
	☆GM2BB8CH10E		3.44	310	82.0
4.2 × 1.4 (t = 0.8)	☆GM5FS0CP10A	(0.300, 0.280)	3.2	130	38.5
	★GM5FSxCx10A	(0.313, 0.323)	(3.2)	(130)	(31.0)
7.0 × 3.0 (t = 0.8)	☆GM5FU2CP20A	(0.261, 0.224)	6.4	130	79.0
	★GM5FUxCx20A	(0.313, 0.323)	(6.4)	(130)	(69.0)

GM2BB0CH10A
GM2BB1CH20E
GM2BB8CH10E

GM5FS0CP10A
GM5FS0Cx10A

GM5FU2CP20A
GM5FU0Cx20A

★Under development

■ Laser Diodes

◆Model Configurations

• For applications other than optical discs

Wavelength (nm)		Absolute maximum ratings (mW)*1	Package		
			 ø5.6 mm Can type	 ø3.3 mm Can type	 1.8 mm t Frame type
640 band		150	★GH0641FA2C	–	–
660 band		10	GH06510F2B	GH06510F4A	–
		300*2	GH06P30C1C	–	GH16P30C8C
785 band		15	GH07815D2K	–	–
		25	GH07825D2K	–	–
		280*2	GH07P28F1C	GH07P28F4C	GH17P28F8C
	2ch*3	15	GH3S215D2B	–	–
		25	GH3S225D2B	–	–
830 band		60	★GH08360A2A	–	–
		210	★GH0832BA2A	–	–

*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 pulse power output MAX. (mW)
*3 4-pin type package

*3 

• For optical disc use*3

Wavelength (nm)		Absolute maximum ratings (mW)*1	Package		
			 ø5.6 mm Can type	 ø3.3 mm Can type	 1.8 mm t Frame type
660/785 band	Dual-wavelength	320/350*2	–	–	GH33235A8C
		350/400*2	–	–	GH33540D8C

*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 pulse 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.

★Under development

◆Specifications

• Laser diodes lineup for applications other than optical discs

(Tc = 25°C)

Model No.	Wave-length (nm)	Absolute maximum ratings*1 (mW)		Features	Applications	Built-in monitor PD	Terminal connec-tions
		CW (Contin-uous wave)	Pulse				
★GH0641FA2C	640 band	150	—	ø5.6 mm CAN package, operating temperature: 60°C MAX.	Display, etc.	No	3
GH06510F2B	660 band	10	—	ø5.6 mm CAN package, operating temperature: 75°C MAX.	Bar code reader, laser displacement gauge, etc.	Yes	2
GH06510F4A				ø3.3 mm CAN package, operating temperature: 70°C MAX.	Bar code reader, laser displacement gauge, etc.	Yes	1
GH06P30C1C		120	300	ø5.6 mm CAN package, operating temperature: 75°C MAX. (pulse drive)	Various types of sensors, etc.	No	3
GH16P30C8C				1.8 mm frame package, operating temperature: 75°C MAX. (pulse drive)	Various types of sensors, etc.	No	6
GH07815D2K	785 band	15	—	ø5.6 mm CAN package, operating temperature: 60°C MAX.	Printer, copier, complex machine	Yes	4
GH07825D2K		25	—	ø5.6 mm CAN package, operating temperature: 60°C MAX.	Printer, copier, complex machine	Yes	4
GH3S215D2B		15 (×2ch)	—	ø5.6 mm CAN package, operating temperature: 60°C MAX.	Printer, copier, complex machine	Yes	5
GH3S225D2B		25 (×2ch)	—	ø5.6 mm CAN package, operating temperature: 60°C MAX.	Printer, copier, complex machine	Yes	5
GH07P28F1C		155	280	ø5.6 mm CAN package, operating temperature: 80°C MAX. (pulse drive)	Various types of sensors, etc.	No	3
GH07P28F4C				ø3.3 mm CAN package, operating temperature: 80°C MAX. (pulse drive)	Various types of sensors, etc.	No	3
GH17P28F8C				1.8 mm frame package, operating temperature: 80°C MAX. (pulse drive)	Various types of sensors, etc.	No	6
★GH08360A2A	830 band	60	—	ø5.6 mm CAN package, operating temperature: 100°C MAX.	Various types of sensors, etc.	Yes	1
★GH0832BA2A		210	—	ø5.6 mm CAN package, operating temperature: 100°C MAX.	Various types of sensors, etc.	Yes	1

*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.

• Laser diodes lineup for optical disc use*2

(Tc = 25°C)

Model No.	Wave-length (nm)	Absolute maximum ratings*1 (mW)		Features	Applications	Built-in monitor PD	Terminal connec-tions
		CW (Contin-uous wave)	Pulse				
GH33235A8C	660 band	90	320	1.8 mm frame package, operating temperature: 85°C MAX. (pulse drive)	Double-layer DVD 8× to 16× recording	No	7
	785 band	160	350		CD-R/RW (MAX. 48× to 52× recording)		
GH33540D8C	660 band	125	350	1.8 mm frame package, operating temperature: 80°C MAX. (pulse drive)	Double-layer DVD 8× to 16× recording	No	7
	785 band	200	400		CD-R/RW (MAX. 48× to 52× recording)		

*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.

RoHS

• Terminal Connections