

☆New product

## &gt; Chip LED / LED Lamp Data Sheet

## ■ HIGH-LUMINOSITY (AlGaInP) LED SERIES

(Ta = 25°C)

Radiation color	Green	Yellow-green	Amber	Sunset orange	Orange	Red	
Series	ZG, JG	ZE, JE	ZV, JV, YV	ZS, JS, YS	ZJ, JJ, YJ	ZR, JR	JU
Dominant emission wavelength (nm)	560	572	588	605	616	630	638
Radiation material	AlGaInP on GaAs						

## ■ HIGH-LUMINOSITY (InGaN) LED SERIES

(Ta = 25°C)

Radiation color	Blue	Green
Series	BC	GC
Dominant emission wavelength (nm)	470	525
Radiation material	InGaN	

## ■ WHITE TYPE LED SERIES

(Ta = 25°C)

Radiation color	White	
Series	VA	BW
Color range (x, y)	(0.33, 0.33)	(0.31, 0.31)
Radiation material	InGaN + RGB fluorescent powder	InGaN + Fluorescent powder

## ■ LED SERIES

(Ta = 25°C)

Radiation color	Green	Yellow-green	Yellow-green (High-luminosity)	Yellow	Sunset orange	Red	Red	Red (High-luminosity)	Red (High-luminosity)	Red
Series	KG, K	EG, E, C*	FG, F	HY, H	HS, S	HD, D	HA, A	TR, T	UR, U	PR, P
Peak emission wavelength (nm)	555	565	565	585	610	635	650	660	660	685
Radiation material	GaP	GaP	GaP	GaAsP on GaP	GaAsP on GaP	GaAsP on GaP	GaAsP on GaP	GaAlAs on GaAs Single hetero	GaAlAs on GaAlAs Double hetero	GaP

\* C is the opposite polarity of EG's.

## ■ HIGH-LUMINOSITY (AlGaInP) LED LAMPS

(If = 20 mA, Ta = 25°C)

Appearance	Radiation shape (mm)	Resin type		High-luminosity														
				JG, ZG (Green)		JE, ZE (Yellow-green)		JV, ZV (Amber)		JS, ZS (Sunset orange)		ZJ, JJ (Orange)		ZR, JR, JU (Red)				
				Model No.	Luminous intensity (mcd) TYP.	Model No.	Luminous intensity (mcd) TYP.	Model No.	Luminous intensity (mcd) TYP.	Model No.	Luminous intensity (mcd) TYP.	Model No.	Luminous intensity (mcd) TYP.	Model No.	Luminous intensity (mcd) TYP.			
Cylinder	φ3	Colored diffusion	Colored transparency	Colored transparency	Milky diffusion	GL3JG402B06E	85	GL3JE402B06E	200	GL3JV402B06E	400	GL3JS402B06E	400	GL3ZJ402B06E	400	GL3ZR402B06E	250	
						GL3JG402B06E	85	GL3JE402B06E	200							GL3JR402B06E	200	
		○	●	●	●			GL3JE802B06E	80	GL3JV802B06E	200	GL3JS802B06E	210	GL3ZJ802B06E	230	GL3ZR802B06E	150	
										GL3JV404B06E	280	GL3JS404B06E	280	GL3JL404B06E	200			
										GL3JV804B06E	110	GL3JS804B06E	120	GL3JL804B06E	100			
												GL5ZV152B06E	2 700	GL5ZS152B06E	3 000	GL5ZJ152B06E	3 000	GL5ZR152B06E
	φ5	○	●	●			GL5ZV302B06E	800	GL5ZS302B06E	1 000	GL5ZJ302B06E	800	GL5ZR302B06E	600				
							GL5JV302B06E	640	GL5JS302B06E	680	GL5JL302B06E	570						
	φ10	○	●	●			GL0ZV042B06E	18 800	GL0ZS042B06E	22 800	GL0ZJ042B06E	18 500						
							GL6ZV27	750	GL6ZS27	850	GL6ZJ27	750	GL6ZR27	360				
	Oval	Long: 5.8 Short: 4.8	○	●			GL6JV7D2D06E	210	GL6JS7D2D06E	230	GL6JL7D2D06E	190						

Taped model is also available.

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# HIGH-LUMINOSITY LED LAMP

# LED

☆New product

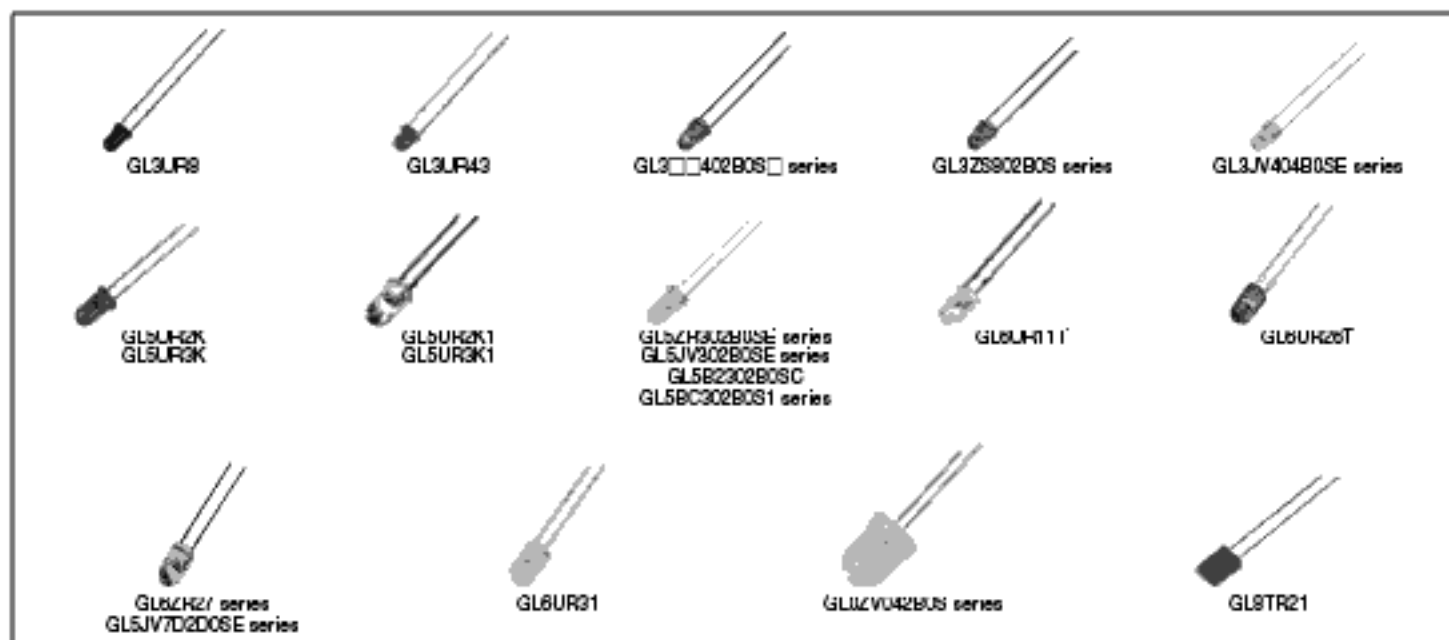
## HIGH-LUMINOSITY LED LAMPS

(F = 20 mA, Ta = 25°C)

Appearance	Radiation shape (mm)	Resin type				High-luminosity								
		Colored diffusion	Colored transparency	Colorless transparency	Milky diffusion	BC (Blue)		GC (Green)		TR, T (Red)		UR, U (Red)		
						Model No.	Luminous intensity (mcd) TYP.	Model No.	Luminous intensity (mcd) TYP.	Model No.	Luminous intensity (mcd) TYP.	Model No.	Luminous intensity (mcd) TYP.	
Cylinder	φ3	●								GL3TR8	80	GL3UR8	300	
				●						GL3TR44	110	GL3UR44	250	
			●							GL3TR43	20	GL3UR43	100	
					●	☆ GL3BC302B0S2	900							
					●	GL3BC402B0SC	200	GL3GC402B0SC	810				GL3UR402B0S	350
					●	GL3BC402B0S1	450	GL3GC402B0S1	1 800					
	φ5				●	GL3B2402B0SC	650	GL3G2402B0SC	2 800					
		●								GL5TR8	80			
					●							GL5UR44	850	
			●									GL5UR2K	2 000	
			●									GL5UR3K	3 000	
					●						GL5TR43	500	GL5UR2K1	2 000
					●								GL5UR3K1	3 000
					●	GL5B2302B0SC	1 200							
Oval	Long: 5.8 Short: 4.6											GL6UR11T <sup>*1</sup>	300	
												GL6UR31	950	
			●									GL6UR26T <sup>*1</sup>	400	
Rectangle	2.0 × 5.0 1.8 × 3.9	●								GL8TR21	4	GL8UR21	16	
		●								GL8TR42	4			

\*1 With tie-bar

Taped model is also available.



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## LED LAMPS

(If = 20 mA<sup>\*1</sup>, Ta = 25°C)

Appearance	Radiation shape (mm)	Resin type		KG		EG		FG		HY		HS		HD		PR		
		Colored diffusion	Colored transparency	Green		Yellow-green		Yellow-green (HL)		Yellow		Sunset orange		Red		Red		
				(555 nm)	Luminous intensity (mcd) TYP.	(565 nm)	Luminous intensity (mcd) TYP.	(565 nm)	Luminous intensity (mcd) TYP.	(585 nm)	Luminous intensity (mcd) TYP.	(610 nm)	Luminous intensity (mcd) TYP.	(635 nm)	Luminous intensity (mcd) TYP.	(695 nm)	Luminous intensity (mcd) TYP.	
Cylinder	ø3	●		GL3KG8	30	GL3EG8	60			GL3HY8	55	GL3HS8	60	GL3HD8	40	GL3PR8	8	
		●				GL3EG41	130											
			●	GL3KG44	60	GL3EG44	130			GL3HY44	100	GL3HS44	100	GL3HD44	110	GL3PR44	12	
		●		GL3KG43	20	GL3EG43	38			GL3HY43	25	GL3HS43	25	GL3HD43	25	GL3PR43	3	
		●		GL3KG62	22	GL3EG62	65			GL3HY62	40	GL3HS62	40	GL3HD62	50			
		●		GL3KG63	6	GL3EG63	18			GL3HY63	16	GL3HS63	15	GL3HD63	17	GL3PR63	2	
		●				LT3E31W*2	18			LT3H31W*2	15			LT3D31W*2	15	LT3P31W*2	1.5	
	ø5	●					LT3E65W*2	25			LT3H65W*2	25	LT3S65W*2	25	LT3D65W*2	25	LT3P65W*2	3
		●		GL4KG8	30	GL4EG8	100			GL4HY8	110	GL4HS8	80	GL4HD8	110	GL4PR8	15	
		●				GL5EG4	20							GL5HD4	25	GL5PR4	3	
		●		GL5KG8	60	GL5EG8	150			GL5HY8	120	GL5HS8	80	GL5HD8	80	GL5PR8	15	
		●		GL5KG41	70	GL5EG41	160			GL5HY41	100	GL5HS41	100	GL5HD41	150	GL5PR41	15	
			●	GL5KG44	70	GL5EG44	160			GL5HY44	100	GL5HS44	100	GL5HD44	100	GL5PR44	15	
		●				GL5EG261B0SB	150							GL5HD261B0SB	80	GL5PR261B0SB	15	
		●				GL5EG40	250			GL5HY40	250	GL5HS40	200	GL5HD40	250	GL5PR40	35	
			●	GL5KG43	120	GL5EG43	300	GL5FG43	600	GL5HY43	250	GL5HS43	250	GL5HD43	300			
						GL5EG60	23							GL5HD60	8			
			●			GL6EG11T*3	120											
ø5 (Inverted cone)	●			GL5EG47	15						GL5HS47	6	GL5HD47	8				
Oval	Long: 5.8 Short: 4.6	●				GL6EG26T*3	140											
Convex	ø2	●				GL2EG6	15			GL2HY6	12		GL2HD6	12	GL2PR6	1.5		
Arch	2.5 × 5.0	●				GL8EG2	30						GL8HD2	30				
	2.0 × 3.1	●				GL8EG4	50						GL8HD4	40				
Rectangle	1.8 × 3.9	●		GL8KG42	1.5	GL8EG42	5			GL8HY42	6		GL8HD42	5	GL8PR42	0.7		
	1.9 × 3.9	●				GL8EG5	28			GL8HY5	25		GL8HD5	22				
	2.0 × 3.2	●		GL8KG25	9	GL8EG25	12			GL8HY25	12	GL8HS25	10	GL8HD25	12	GL8PR25	1.5	
	2.0 × 3.2	●		GL8KG29	5	GL8EG29	12			GL8HY29	10	GL8HS29	7		GL8PR29	3		
	2.0 × 4.5	●				GL8EG23	6			GL8HY23	8		GL8HD23	6				
	2.0 × 5.0	●		GL8KG21	4	GL8EG21	8			GL8HY21	8	GL8HS21	8	GL8HD21	8	GL8PR21	0.7	
		●		GL8KG26	4	GL8EG26	8			GL8HY26	8			GL8HD26	8	GL8PR26	0.7	
Square	5.0 × 5.0	●		GL8KG22	3.5	GL8EG22	6			GL8HY22	5	GL8HS22	5	GL8HD22	8	GL8PR22	1.2	
Triangle	Isosceles triangle	●													GL8PR28	0.9		

\*1 PR series (Red): If = 5 mA (GL8PR25, GL8PR29: If = 10 mA)

\*2 Taped model

\*3 With tie-bar

HL: High-luminosity

Taped model is also available.

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**Cylinder**



GL3PR8 series



GL3PR44 series



GL3HY43 series



GL3KG62 series



LT3E31W series



GL3PR63 series



LT3E65W series



GL4PR8 series



GL5PR4 series



GL5HS8 series



GL5KG41 series



GL5PR44 series



GL5EG40 series



GL5HY43 series



GL5EG60 series



GL6EG11T



GL5HD47 series

**Oval**



GL6EG26T

**Convex**



GL2HY6

**Arch**



GL8EG2 series



GL8HD4 series

**Rectangle**



GL8KG42 series



GL8KG25 series



GL8HY29 series



GL8HD23 series



GL8HS21 series



GL8HY26 series

**Square**



GL8HD22 series

**Triangle**



GL8PR28

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## DICHROMATIC LED LAMPS

(The values in luminous intensity are radiation color order) (IF = 20 mA<sup>\*1</sup>, Ta = 25°C)

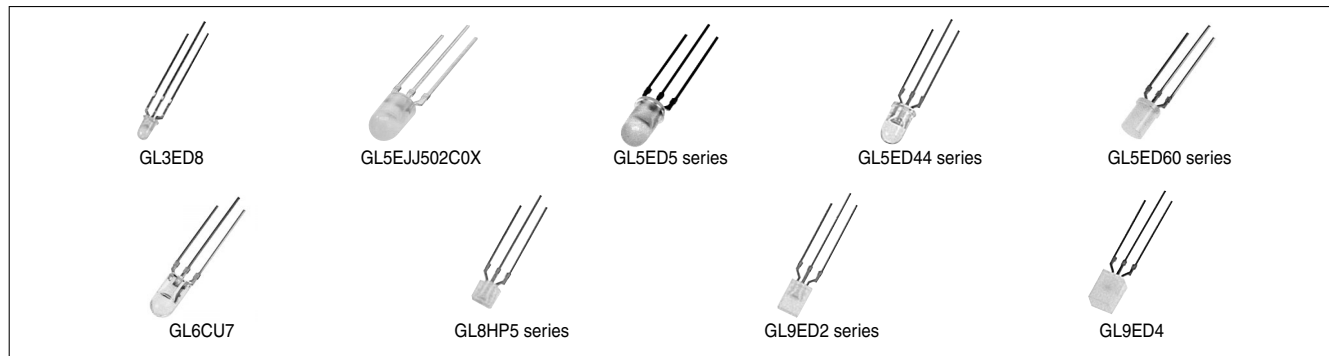
Appearance	Radiation shape (mm)	Resin type					E J J		C U *		E P		E D		E H		H P		
		Colored diffusion	Colored transparency	Colorless transparency	Colorless	Milky diffusion	Yellow-green + Orange (HL)	Luminous intensity (mcd) TYP.	Yellow-green + Red (HL)	Luminous intensity (mcd) TYP.	Yellow-green + Red	Luminous intensity (mcd) TYP.	Yellow-green + Red	Luminous intensity (mcd) TYP.	Yellow-green + Yellow	Luminous intensity (mcd) TYP.	Yellow + Red	Luminous intensity (mcd) TYP.	
Cylinder	ø3					●	GL5EJJ502C0X <sup>*2</sup>	110/170			GL5EP5	40/9	GL3ED8	20/15				GL5HP5	15/9
				●		●			GL5CU44	100/240			GL5ED5	40/25					
	ø5					●						GL5ED44	80/50						
						●			GL6CU7	120/250			GL5ED60	11/8					
Rectangle	1.9 × 3.9					●						GL8ED5	10/6.5				GL8HP5	3/1.5	
	2.0 × 5.0					●						GL9ED2	8/3	GL9EH2	6/2	GL9HP2	1/0.8		
	5.0 × 5.0					●						GL9ED4	7/4						

\* CU series: Common anode pin connection

\*1 P (Red) and H (yellow): IF = 10 mA

\*2 Taped model

HL: High-luminosity



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# HIGH-LUMINOSITY CHIP LED

# LED

☆New product  
★Under development

## ■ HIGH-LUMINOSITY (AlGaInP) CHIP LEDs (Taped models only)

(If = 20 mA, Ta = 25°C)

Outline dimensions (mm)	Resin type				Z G		Z E J E		Z V J V		Z S J S		Z J J J		Z R J R	
	Colored diffusion	Colored transparency	Colorless transparency	Milky diffusion	Green	Luminous intensity (mcd) TYP.	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*1	13	GM1JV55200AE*1	16.8	GM1JS55200AE*1	20.9	GM1JJ55200AE*1	19		
1.6 × 0.8 (T: 0.8)			●		LT1ZG67A	6.1	LT1ZE67A	25.4	LT1ZV67A	78.7	LT1ZS67A	123.2	LT1ZJ67A	123.3	LT1ZR67A	73.9
			●						GM1ZV80300AE	75	GM1ZS80300AE	75	GM1ZJ80300AE	75	GM1ZR80300AE	55
			●						LT1JV67A*1	16.5	LT1JS67A*1	14.1				
2.0 × 1.25 (T: 0.8)			●		LT1ZG40A	6.2	LT1ZE40A	28.2	LT1ZV40A	92.7	LT1ZS40A	144.1	LT1ZJ40A	127.8	LT1ZR40A	78.7
			●						GM1ZV40300AE	60	GM1ZS40300AE	78	GM1ZJ40300AE	60	GM1ZR40300AE	55
			●						GM1JV40300AE	11	GM1JS40300AE	12	GM1JJ40300AE	9.5		
3.2 × 2.8 (T: 1.9)		●			LT1ZG95A	15	LT1ZE95A	45	LT1ZV95A	170	LT1ZS95A	290	LT1ZJ95A	200	GM5ZR95200AE	100
		●							GM5JV95200AE	80	GM5JS95200AE	90	GM5JJ95200AE	70		
6.0 × 5.0 (T: 2.5)		●							GM5ZV01200A*3	500	GM5ZS01200A*3	700	GM5ZJ01200A*3	500	GM5ZR01200A*3	400
		●							GM5YV01210A*4	1 300	GM5YS01210A*4	1 700	GM5YJ01210A*4	1 500		
6.0 × 5.0 (T: 2.3) (board insertion type)		●							GM5ZV03200Z*3	500	GM5ZS03200Z*3	700	GM5ZJ03200Z*3	500	GM5ZR03200Z*3	400
		●							GM4JV81200AE*2	35	GM4JS81200AE*2	40	GM4JJ81200AE*2	40	GM4JR81200AE*2	30
1.6 × 1.15 (T: 0.8) (Side emitting)		●														
		●													★GM4JR81250AE*2	(45)
2.7 × 1.3 (T: 1.2) (Side emitting)			●						LT1JV45A*1	20	LT1JS45A*1	24	LT1JJ45A*1	16		

\*1 LT1JS67A, LT1JV67A, GM1JV55200AE series, GM1JV35200AE series, GM1JV40300AE series, LT1JV45A series: If = 5 mA

\*2 GM4JV81200AE series: If = 10 mA

\*3 GM5ZR01200A series, GM5ZR03200Z series: If = 60 mA

\*4 GM5YV01210A series: If = 90 mA

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☆New product  
★Under development

## ■ HIGH-LUMINOSITY (InGaN) CHIP LEDs (Taped models only)

( $I_F = 10 \text{ mA}$ ,  $T_a = 25^\circ\text{C}$ )

Outline dimensions (mm)	Resin type				BC Blue		GC Green	
	Colored diffusion	Colored transparency	Colorless transparency	Milky diffusion		Luminous intensity (mcd) TYP.		Luminous intensity (mcd) TYP.
1.6 × 0.8 (T: 0.35)			●				GM1GC35200AC	54
				●	★GM1BC35370AC* <sup>1</sup>	23		
1.6 × 0.8 (T: 0.55)			●		★GM1BC55270AC* <sup>1</sup>	23	GM1GC55200AC	47
			●		GM5BC95200AC* <sup>2</sup>	73	GM5GC95200AC* <sup>2</sup>	311
3.2 × 2.8 (T: 1.9)			●		★GM5BC95250AC* <sup>2</sup>	120	★GM5GC95250AC* <sup>2</sup>	500
			●		★GM5BC95270AC* <sup>2</sup>	370		
			●		GM5BC01200AC* <sup>3</sup>	200	GM5GC01200AC* <sup>3</sup>	520
6.0 × 5.0 (T: 2.5)			●		★GM5BC01250AC* <sup>3</sup>	300	★GM5GC01250AC* <sup>3</sup>	1 200
			●		★GM5BC01270AC* <sup>3</sup>	550		
			●		GM5BC03200Z* <sup>3</sup>	200	GM5GC03200Z* <sup>3</sup>	520
6.0 × 5.0 (T: 2.3) board insertion type			●		☆GM5BC03210Z* <sup>3</sup>	300		
			●		★GM4BC81250AC	50	★GM4GC81250AC	170
1.6 × 1.15 × 0.8 (Side emitting)			●		★GM4BC13300AC	12	GM4GC13300AC	46

\*1 GM1BC35370AC, GM1BC55270AC:  $I_F = 5 \text{ mA}$

\*2 GM5BC95200AC series, GM5BC95250AC series:  $I_F = 20 \text{ mA}$

\*3 GM5BC01200AC series, GM5BC01250AC series, GM5BC03200Z series:  $I_F = 50 \text{ mA}$

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## CHIP LEDs (Taped models only)

(If = 20 mA\*, Ta = 25°C)












Outline dimensions (mm)	Resin type				Green	Luminous intensity (mcd) TYP.	E F E G		Yellow-green	Luminous intensity (mcd) TYP.	H H Y		Yellow	Luminous intensity (mcd) TYP.
	Colored diffusion	Colored transparency	Colorless transparency	Milky diffusion										
1.6 × 0.8 (T: 0.35)			●					GM1EG35200A	19					
1.6 × 0.8 (T: 0.55)			●					GM1EG55200A	19		GM1HY55200A	11.5		
1.6 × 0.8 (T: 0.6)				●				LT1E97A	23		LT1H97A	9.8		
1.6 × 0.8 (T: 0.8)				●	LT1K67A	3.8		LT1E67A LT1F67A LT1F67AF	23		LT1H67A	8.3		
2.0 × 1.25 (T: 0.8)				●	LT1K40A	5		LT1E40A	19		LT1H40A	10.8		
3.2 × 2.8 (T: 1.9)			●					GM5EG95200A	18.1					
1.6 × 1.15 × 0.8 (Side emitting)			●					GM4EG81200A	20					
2.7 × 1.3 × 1.2 (Side emitting)			●					LT1E45A	29					

Outline dimensions (mm)	Resin type				Sunset orange	Luminous intensity (mcd) TYP.	D H D		Red	Luminous intensity (mcd) TYP.	U U R		Red (HL)	Luminous intensity (mcd) TYP.	P	Red	Luminous intensity (mcd) TYP.
	Colored diffusion	Colored transparency	Colorless transparency	Milky diffusion													
1.6 × 0.8 (T: 0.55)			●		GM1HS55200A	11.4		GM1HD55200A	12.5		GM1UR55200A	29.7					
1.6 × 0.8 (T: 0.6)				●	LT1S97A	8.2		LT1D97A	11		LT1U97A	35.3		LT1P97A	1.6		
1.6 × 0.8 (T: 0.8)				●	LT1S67A	6.9		LT1D67A	8.8		LT1U67A	29.7		LT1P67A	1.3		
2.0 × 1.25 (T: 0.8)				●	LT1S40A	9.4		LT1D40A	11.9		LT1U40A	35.6		LT1P40A	1.3		
3.2 × 2.8 (T: 1.9)			●					GM5HD95200A	13.8		GM5UR95200A	80					

\*1 P (Red) series: If = 5 mA

HL: High-luminosity

 LT1D67A series LT1ZR67A series LT1JS67A series GM1ZV80300AE series	 LT1D97A series	 GM1EG55200A series GM1JV55200AE series GM1BC55250AC series	 LT1E40A series LT1ZE40A series GM1JV40300AE series GM1ZV40300AE series
 GM1JV35200AE series GM1EG35200A GM1BC35200AC series GM1BC35310AC	 LT1E45A series LT1JV45A series GM4BC13300AC series	 GM4JV81200AE series GM4EG81200A GM4BC81250AC series	 LT1ZR95A series GM5JV95200AE series, GM5EG95200A series GM5BC95200AC series, GM5BC95250AC series
 GM5ZR01200A series, GM5BC01200AC series GM5BC01250AC series, GM5YV01210A series		 GM5ZV03200Z series GM5BC03200Z series	 Taped model

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## ■ HIGH-LUMINOSITY DICHROMATIC TYPE CHIP LEDs (Taped models only)

(I<sub>F</sub> = 20 mA, [Blue, Green: I<sub>F</sub> = 10 mA], T<sub>a</sub> = 25°C)

Outline dimensions (mm)	Resin type					Luminous intensity (mcd) TYP.	Luminous intensity (mcd) TYP.
	Colored diffusion	Colored transparency	Colorless transparency	Milky diffusion			
1.6 × 1.6 (T: 0.8)				●		GM1ZVB80300A	43.8/14.4

(I<sub>F</sub> = 40 mA, T<sub>a</sub> = 25°C)

Outline dimensions (mm)	Resin type					Luminous intensity (mcd) TYP.	Luminous intensity (mcd) TYP.	Luminous intensity (mcd) TYP.
	Colored diffusion	Colored transparency	Colorless transparency	Milky diffusion				
6.0 × 5.0 (T: 2.5)			●			GM5BG01210A	300/860	

## ■ DICHROMATIC TYPE CHIP LEDs (Taped models only)

(I<sub>F</sub> = 20 mA, T<sub>a</sub> = 25°C)

Outline dimensions (mm)	Resin type					Luminous intensity (mcd) TYP.	Luminous intensity (mcd) TYP.
	Colored diffusion	Colored transparency	Colorless transparency	Milky diffusion			
1.6 × 1.6 (T: 0.8)				●		LT1EH67A	19/8.3



## ■ HIGH-LUMINOSITY WHITE TYPE CHIP LEDs (with blue chip) (Taped models only)

(T<sub>a</sub> = 25°C)

Outline dimensions (mm)	Color coordinates (x, y)	Radiation color	White	Luminous intensity (mcd) TYP.
3.2 × 2.8 (T: 1.9)	(0.31, 0.3)	White	★ GM5BW95300A*1	1 100
6.0 × 5.0 (T: 1.5) 6-terminal leadless	(0.31, 0.31)	White	★ GM5BW01300A*3	4 200
6.0 × 5.0 (T: 2.5) 4-terminal leadless	(0.31, 0.31)	White	★ GM5BW01301A*2	1 800

\*1 GM5BW95300A: I<sub>F</sub> = 20 mA

\*2 GM5BW01301A: I<sub>F</sub> = 40 mA

\*3 GM5BW01300A: I<sub>F</sub> = 35 mA/chip



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## WHITE TYPE CHIP LEDs (with blue-violet chip) (Taped models only)

( $I_F = 40 \text{ mA}$ ,  $T_a = 25^\circ\text{C}$ )

Outline dimensions (mm)	Color coordinates (x, y)	Radiation color	VA	Luminous intensity (mcd) TYP.
6.0 × 5.0 (T: 2.5) 4-terminal leadless	(0.33, 0.33)	White	GM5VA33331AC	450
	(0.34, 0.40)	Yellowish white	★ GM5VA34400AC	(700)
	(0.29, 0.27)	Purplish white	★ GM5VA29270AC	(350)
	(0.30, 0.50)	Greenish white	★ GM5VA30500AC	(900)

( ) indicates reference value.



## HIGH-LUMINOSITY DICHROMATIC TYPE CHIP LEDs (RGB 3-color) (Taped models only)

( $T_a = 25^\circ\text{C}$ )

Outline dimensions (mm)	Resin type				WA	Luminous intensity (mcd) TYP.
	Colored diffusion	Colored transparency	Colorless transparency	Milky diffusion		
1.6 × 1.6 (T: 0.55)				●	★ GM1WA55360A*1	125/150/55
1.6 × 1.6 (T: 0.8)				●	GM1WA80350A*2	80/92/30
6.0 × 5.0 (T: 2.5) 4-terminal leadless			●		GM5WA02200A*3	850 [Mixed color]
			●		GM5WA06203A*3	850 [Mixed color]
6.0 × 5.0 (T: 2.5)*7 6-terminal leadless			●		GM5WA06210A*4	250/400/350
			●		GM5WA06250A*5	1 400 [Mixed color]
			●		GM5WA06260A*3	1 725 [Mixed color]
			●		GM5WA06270A*6	3 000 [Mixed color]
			●		GM5WA06200Z*3	850 [Mixed color]
6.0 × 5.0 (T: 2.3 [resin part]) 6-terminal			●		GM5WA06203Z*3	850 [Mixed color]
			●		GM5WA06250Z*4	1 400 [Mixed color]
6.0 × 5.0 (T: 1.5) 6-terminal leadless				●	☆ GM5WA05360A*6	2 200 [Mixed color]

\*1 GM1WA55360A:  $I_F = 10 \text{ mA}$  (Red, Green, Blue)

\*2 GM1WA80350A:  $I_F = 20 \text{ mA}$  (Red),  $I_F = 10 \text{ mA}$  (Green, Blue)

\*3 GM5WA02200A, GM5WA06203A, GM5WA06260A, GM5WA06200Z, GM5WA06203Z:  $I_F = 40 \text{ mA}$  (Red, Green),  $I_F = 20 \text{ mA}$  (Blue)

\*4 GM5WA06210A:  $I_F = 40 \text{ mA}$  (Red, Green, Blue)

\*5 GM5WA06250A, GM5WA06250Z:  $I_F = 35 \text{ mA}$  (Red, Green),  $I_F = 20 \text{ mA}$  (Blue)

\*6 GM5WA06270A, GM5WA05360A:  $I_F = 35 \text{ mA}$  (Red, Green, Blue)

\*7 GM5WA06270A: T: 2.4 mm



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## LEDs FOR CAMERA DATA BACK

(IF = 1 mA, Ta = 25°C)

Model No.	No. of dots	Outline dimensions (mm)	Radiation color	Luminous intensity (mcd)
GW01M59001PE	7	2.6 × 2.9 (T: 0.9) Surface-mount type	Amber	(MIN. 0.4 TYP. 0.8)

( ) indicates reference value.



## LED DRIVERS

Model No.	Description	Function	Supply voltage (V)	Package
★IR2D20N/U	24-dot LED panel driver with constant-current sink outputs	<ul style="list-style-type: none"> <li>Output current (constant-current sink outputs) : 30 mA (MAX.) (setup by external resistor)</li> <li>Graduation function (clock cycle setting or external synchronization)</li> <li>Independent current control for three systems (for RGB LED)</li> <li>LED drive voltage : 15 V</li> <li>Rated output voltage : 20 V (MAX.)</li> <li>f<sub>CLK</sub> : 20 MHz (MAX.) / 16.6 MHz (MAX.) (at cascade connection)</li> </ul>	4.5 to 5.5	P-SSOP056-0600/ P-HQFN052-0707
★IR2D07N1	16-dot LED panel driver with constant-current sink outputs	<ul style="list-style-type: none"> <li>Output current (constant-current sink outputs) : 60 mA (MAX.) (setup by external resistor)</li> <li>Rated output voltage : 7 V (MAX.)</li> <li>f<sub>CLK</sub> : 20 MHz (MAX.) / 16.6 MHz (MAX.) (at cascade connection)</li> </ul>	3.0 to 5.5	P-SSOP040-0300
★IR2E46U6/Y6	RGB LED driver for flash lights and illuminations	<ul style="list-style-type: none"> <li>Output current : 155 mA/ch (MAX.) (3ch) (in flash mode)</li> <li>Control by I<sup>2</sup>C bus</li> <li>Illumination mode (64 levels/ch)</li> <li>Flash mode (32 levels/ch)</li> <li>Brightness adjustment</li> </ul>	2.7 to 4.5	P-VQFN032-0505/ WL-CSP*1
★IR2E47U6	White LED driver for back light	<ul style="list-style-type: none"> <li>Output current : 20 mA (MAX.) (setup by external resistor)</li> <li>Independent current control for two systems (4 outputs and 2 outputs)</li> <li>LED non-connected judging function</li> <li>Brightness adjustment</li> </ul>	2.7 to 5.5	P-VQFN024-0404 (*2)
★IR2E48U6		<ul style="list-style-type: none"> <li>Output current : 20 mA (MAX.)</li> <li>LED non-connected judging function</li> <li>Brightness adjustment</li> </ul>		P-VQFN024-0404

\*1 WL-CSP : Wafer-level CSP

\*2 Contact a SHARP sales office regarding a wafer-level CSP.

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