

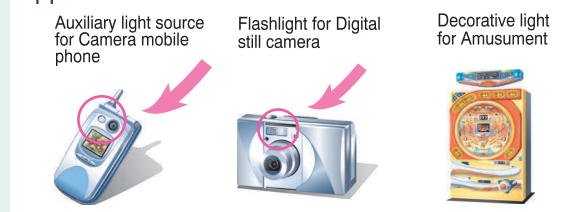
Super-luminosity RGB 3-color Chip LED

Electro-optical Characteristics [6.0 x 5.0 size] (RGB 3-color Emission)

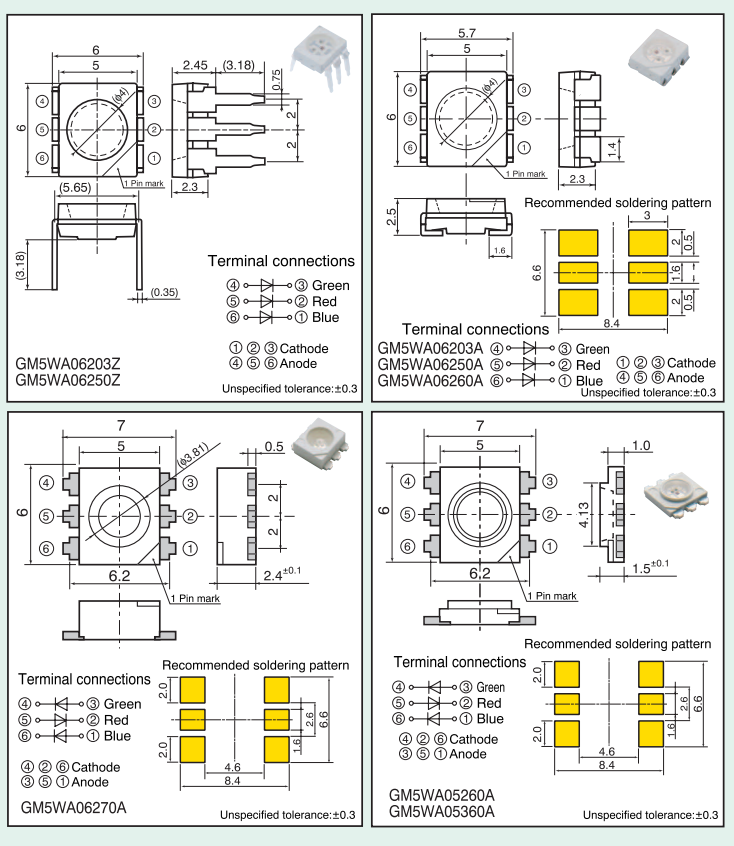
Lens type	Model No.	Forward voltage V _F (V) TYP. (I _F =35mA)	Luminous intensity I _v (mcd) TYP.		Image
			I _F (mA)	I _F (mA)	
Colorless transparency	*GM5WA06203A	2.0	850	40	
		4.2		40	
		4.2		20	
Colorless transparency	GM5WA06250A	2.3	1 400	35	
		4.2		40	
		4.2		20	
Colorless transparency	GM5WA06260A	2.2	1 725	40	
		4.2		40	
		4.2		20	
Colorless transparency	GM5WA06270A	2.2	3 000	35	
		4.2		35	
		4.2		35	
Thin	*GM5WA05260A	2.2	1 700	35	
	4.2	35			
	4.2	35			
Thin	*GM5WA05360A	2.2	2 200	35	
	4.2	35			
	4.2	35			

* Under development

Application



Outline Dimensions (Unit : mm)



[1616 size, 0.8mm thickness] (Dichromatic Emission) (T_a=25°C)

Lens type	Model No.	Forward voltage V _F (V) TYP	Dominant wavelength		Luminous intensity	
			λ _d (nm) TYP.	λ _p (nm) TYP.	I _v (mcd) TYP.	I _F (mA)
Milky diffusion	GM1ZVB80300A	2.1	588	591	43.8	20
		3.2	472	470	14.4	10
Milky diffusion	GM1ZSG80300A	2.1	605	609	66.0	20
		3.2	530	528	46.1	10



[1616 size, 0.8mm thickness] (RGB 3-color Emission)

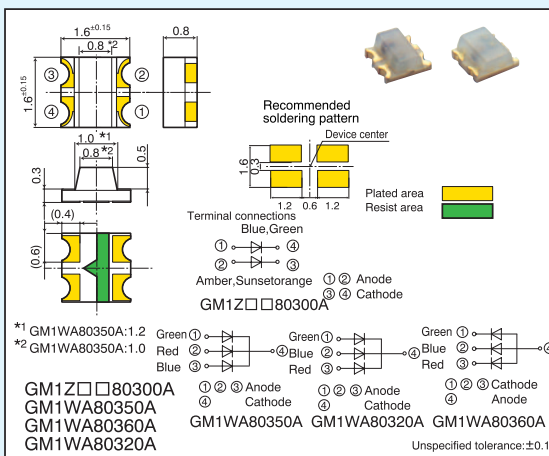
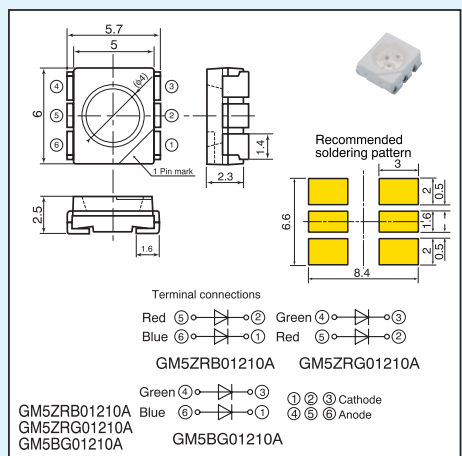
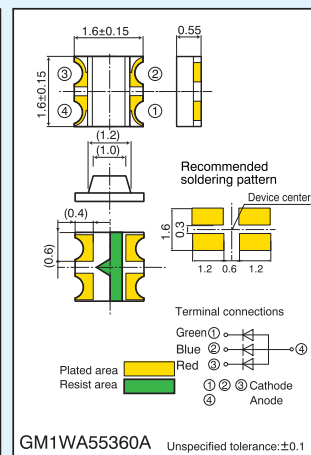
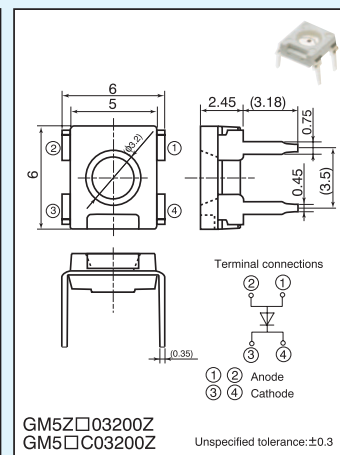
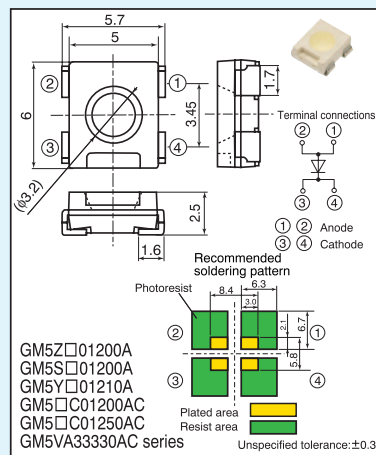
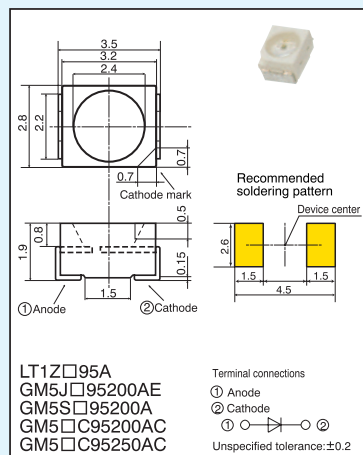
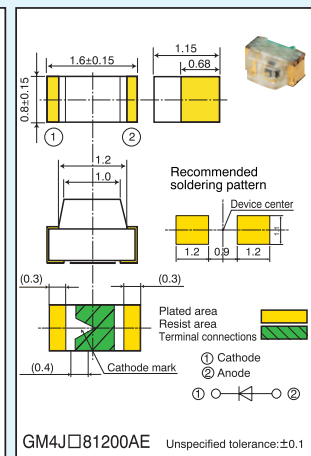
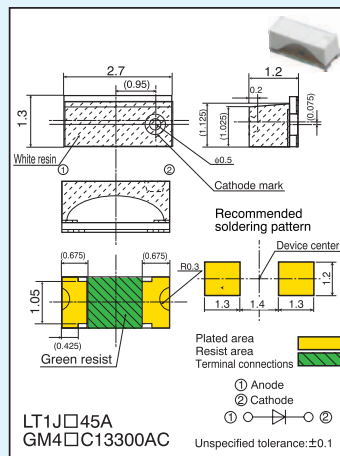
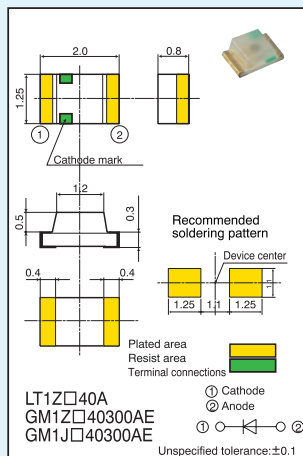
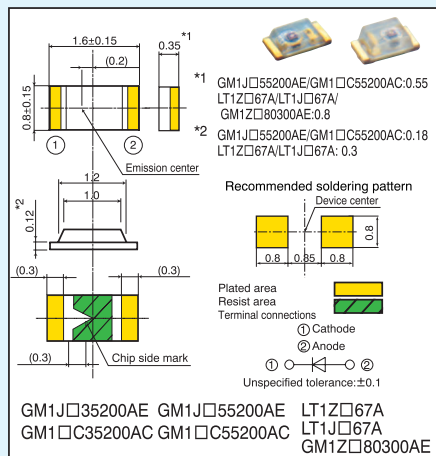
Milky diffusion	GM1WA80350A	2.1	618	627	100	20
		3.2	530	528	92	10
		3.2	472	470	30	10
Milky diffusion	*GM1WA80360A	2.3	628	640	90	20
		3.4	530	528	215	10
		3.5	472	470	57	10
Milky diffusion	*GM1WA80320A	2.0	630	638	64	20
		2.1	565	565	34	10
		3.2	472	470	30	10



[1616 size, 0.55mm thickness] (RGB 3-color Emission)

Milky diffusion	*GM1WA55360A	2.1	628	640	(125)	10
		3.4	527	528	(150)	10
		3.2	472	470	(55)	10

Outline Dimensions (Unit : mm)



[6.0 x 5.0 size, 2.5mm thickness] (White Emission) (T_a=25°C)

Model No.	Emitting color	Forward voltage V _F (V) TYP	Color range (x,y)	Luminous intensity	
				I _v (mcd) TYP	I _F (mA)
GM5VA33330AC	White	4.0	(0.33,0.33)	450	40
*GM5VA34400AC	Yellowish white	4.0	(0.34,0.40)	(700)	40
*GM5VA29270AC	Purplish white	4.0	(0.29,0.27)	(350)	40
*GM5VA30500AC	Greenish white	4.0	(0.30,0.50)	(900)	40

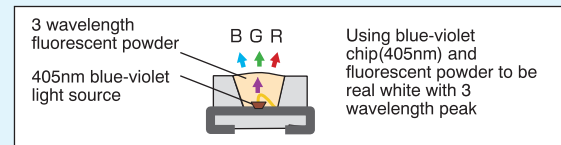


[2.4 x 1.2 size, 0.8mm thickness] (White Side Emission)

*GM4VG31320AC	White	3.7	(0.31,0.32)	(300)	20
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* Under development



Super-luminosity (AlGaInP, InGaN) LED Lamp

Absolute Maximum Ratings

Emitting color	Material	Power dissipation P (mW)	Forward current I _F (mA)	Peak forward current I _F M*1 (mA)	Derating factor (mA/°C)		Reverse voltage V _R (V)	Operating temperature T _{opr} (°C)	Storage temperature T _{stg} (°C)	Soldering temperature T _{sol} *2 (°C)
					DC	Pulse				
Z□(R,J,S,V,E,G)	AlGaInP on GaAs	130	50	100	0.67	1.33	5	-40 to +85	-40 to +100	260
J□(J,S,V,E,G)	AlGaInP on GaAs	78	30	50	0.40	0.67	5	-40 to +85	-40 to +100	260
S□(R,J,E,G)	AlGaInP on GaAs	130	50	100	0.40	1.33	5	-40 to +85	-40 to +100	260
□(C,B,G)	InGaN	126	30	100	0.40	1.33	5	-20 to +80	-25 to +100	260

(T_a=25°C)

*1 Duty ratio=1/10, Pulse width=0.1ms
*2 For 5 s or less
(At the position of 1.6mm or more from the bottom face of resin package)

□: Emitting color R: Red, J: Orange, S: Sunset orange, V: Amber, E: Yellow-green, G: Green, B: Blue

Electro-optical Characteristics

(I_F=20mA, T_a=25°C)

Lens type	Model No.	Forward voltage V _F (V)		Dominant wavelength		Luminous intensity I _v (mcd) TYP.
		TYP	MAX	λ _d (nm) TYP.	λ _p (nm) TYP.	
Colorless transparency φ3 40°	GL3ZR402B0SE	2.1	2.6	630	640	250
	GL3ZJ402B0SE	2.0	2.6	618	627	400
	GL3ZS402B0SE	2.0	2.6	605	609	400
	GL3ZV402B0SE	2.0	2.6	588	591	400

Colorless transparency φ3 40°	GL3JR402B0S3	2.0	2.6	630	638	200
	GL3JE402B0SE	2.0	2.6	573	575	200
	GL3JG402B0SE	2.0	2.6	562	564	85

Colorless transparency φ3 40°	*GL3SR402B0S	2.0	2.6	640	655	400
	*GL3SJ402B5SL	2.3	2.8	628	641	1100
	*GL3SE402B0S	2.1	2.6	571	573	650
	*GL3SG402B0S	2.1	2.6	565	566	250

Colorless transparency φ3,40°	GL3BC402B0S1	3.7	4.4	470	468	450
	GL3GC402B0S1	3.7	4.4	525	520	1800

Colorless transparency φ3,40°	*GL3B2402B0SC	3.6	4.0	470	468	(650)
	*GL3G2402B0SC	3.8	4.2	525	518	(2800)

Colored transparency φ3 40°	GL3J404B0SE	2.0	2.6	618	627	200
	GL3S404B0SE	2.0	2.6	605	609	280
	GL3JV404B0SE	2.0	2.6	588	591	280

Colorless transparency φ3 80°	GL3ZR802B0SE	2.0	2.6	630	638	150
	GL3ZJ802B0SE	2.0	2.6	618	627	230
	GL3ZS802B0SE	2.0	2.6	605	609	210
	GL3ZV802B0SE	2.0	2.6	588	591	200
	GL3ZE802B0S	2.1	2.6	570	570	80

Colored transparency φ3 80°	GL3JR804B0SE	2.0	2.6	618	627	100
	GL3JS804B0SE	2.0	2.6	605	609	120
	GL3JV804B0SE	2.0	2.6	588	591	110

Colored diffusion φ3 Oval 120° (Horizontal)	GL3ZR2D1C0S	2.1	2.6	635	647	180
	GL3ZJ2D1C0S	2.1	2.6	618	627	280
	GL3ZS2D1C0S	2.1	2.6	605	609	450
	GL3ZV2D1C0S	2.1	2.6	588	591	300

(I_F=20mA, T_a=25°C)

Lens type	Model No.	Forward voltage V _F (V)		Dominant wavelength		Luminous intensity I _v (mcd) TYP.
		TYP	MAX	λ _d (nm) TYP.	λ _p (nm) TYP.	
Colorless transparency φ5 15°	GL5ZR152B0SE	2.0	2.6	630	638	2000
	GL5ZJ152B0SE	2.0	2.6	618	627	3000
	GL5ZS152B0SE	2.0	2.6	605	609	3000
	GL5ZV152B0SE	2.0	2.6	588	591	2700

Colorless transparency φ5 30°	GL5ZR302B0SE	2.0	2.6	630	638	600
	GL5ZJ302B0SE	2.0	2.6	618	627	900
	GL5ZS302B0SE	2.0	2.6	605	609	1000
	GL5ZV302B0SE	2.0	2.6	588	591	900
	GL5ZE302B0S	2.1	2.6	570	570	300

Colorless transparency φ5 30°	GL5JJ302B0SE	2.0	2.6	618	627	570
	GL5JS302B0SE	2.0	2.6	605	609	680
	GL5JV302B0SE	2.0	2.6	588	591	640

Colorless transparency φ5,20°	GL5BC302B0S1	3.7	4.4	470	468	700
	GL5GC302B0S1	3.7	4.4	525	520	1700

Colorless transparency φ5,20°	GL5B2302B0SC	3.6	4.2	470	465	1200
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Colorless transparency φ5 Oval 70° (Horizontal)	GL6ZR27	2.1	2.6	635	647	360
	GL6ZJ27	2.1	2.6	618	627	750
	GL6ZS27	2.1	2.6	605	609	850
	GL6ZV27	2.1	2.6	588	591	750
	GL6ZE27	2.1	2.6	570	570	200

Colorless transparency φ5 Oval 70° (Horizontal)	GL5JJ7D2D0SE	2.0	2.6	618	627	190
	GL5JS7D2D0SE	2.0	2.6	605	609	230
	GL5JV7D2D0SE	2.0	2.6	588	591	210

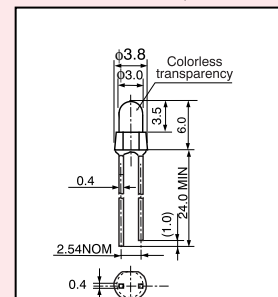
Colorless transparency φ10 4°	GL0ZJ042B0S	2.1	2.6	618	627	18500
	GL0ZS042B0S	2.1	2.6	605	609	22600
	GL0ZV042B0S	2.1	2.6	588	591	16900

* Under development

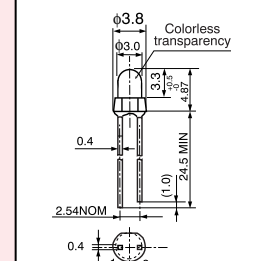
Viewing angle : 2θ 1/2

Outline Dimensions

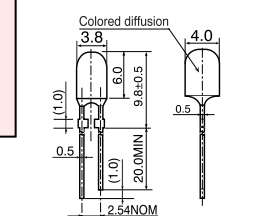
(Unit : mm)



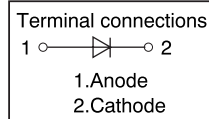
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GL3J□402B0SE
GL3S□402B0S
GL3J□404B0SE (Colored transparency)
GL3□C402B0S1
GL3□2402B0SC



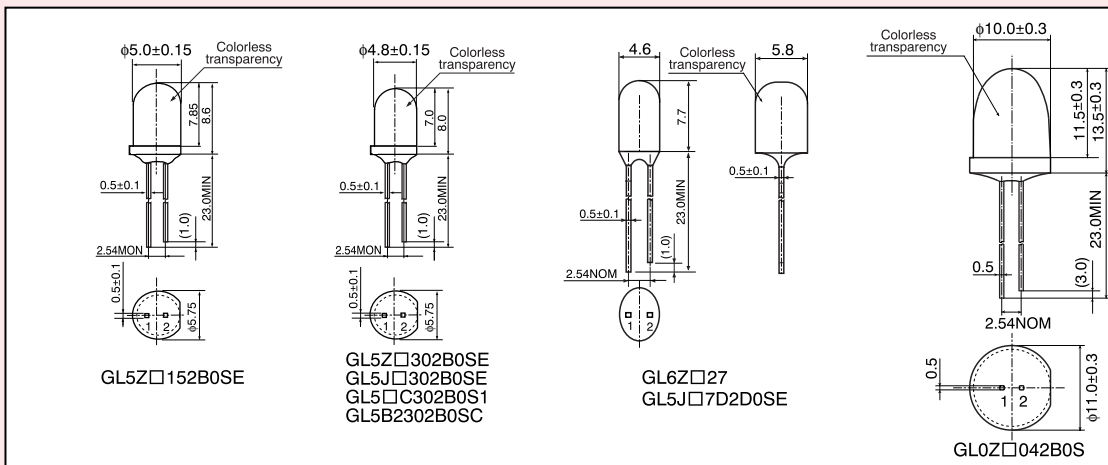
GL3Z□802B0SE
GL3J□804B0SE (Colored transparency)



GL3Z□2D1C0S



□: Emitting color
Unspecified tolerance: ±0.2



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.

<http://sharp-world.com/products/device/index.html>

As of September 2003 [FT02K]