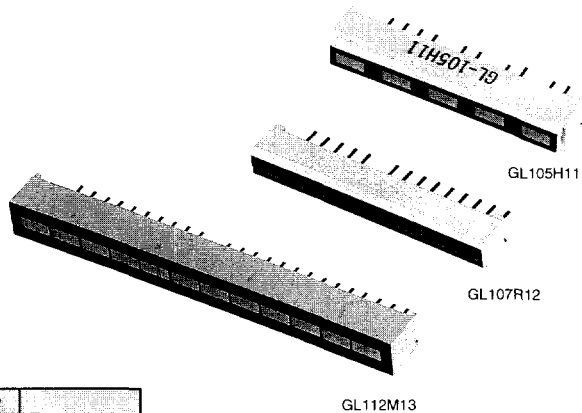


LED for Bar Graphic Display

General Description

Sharp's LEDs for bar graphic display can be widely used for measuring and control equipment as well as consumer products. They can decrease the dispersion between each dot and can be easily mounted compared to each LED lamp.

Applying additional LED lamps, various radiation color and length of bar graphic displays are available.



LED for Bar Graphic Display

Type	Number of dots	Outline dimensions (mm)	Radiation color Radiation size(mm)	Single color		Multi-color	Outline dimensions	
				R Red	H Yellow	M Yellow-green+Red	Page	Figure
Case mold	12	7.0X58.0	1.5X4.0	GL112R9	GL112H9	GL112M9 (8dots+4dots)	149	1
		7.0X70.4	2.2X5.3	GL112R13	GL112H13	GL112M13 (8dots+4dots)		2
	7	6.0X42.0	2.0X4.5	GL107R12	GL107H12	GL107M12 (4dots+3dots)		3
	5	7.0X40.0	2.0X5.0	GL105R11	GL105H11	GL105M11 (3dots+2dots)		4
All resin	7	4.0X43.0	2.0X4.5	GL107R8	GL107H8	GL107M8 (4dots+3dots)		5
	5	4.0X30.2	2.0X4.5	GL105R8	GL105H8	GL105M8 (3dots+2dots)		6

Multiple Color Configuration

Type	Model No.	Color configuration											
		A	B	C	D	E	F	G	H	I	J	K	L
Case mold	GL112M9	□	□	□	□	□	□	□	□	■	■	■	■
	GL112M13	□	□	□	□	□	□	□	□	■	■	■	■
	GL107M12	□	□	□	□	■	■	■					
	GL105M11	□	□	□	■	■							
All resin	GL107M8	□	□	□	□	■	■	■					
	GL105M8	□	□	□	■	■							

:Yellow-green
 :Red

*All resin type: Various length of bar graphic displays can be available on your request, applying additional LED lamps(GL8XX23 series).

LED for Bar Graphic Display

LED for Bar Graphic Display

Absolute Maximum Ratings (Figures shown below are values per dot.)

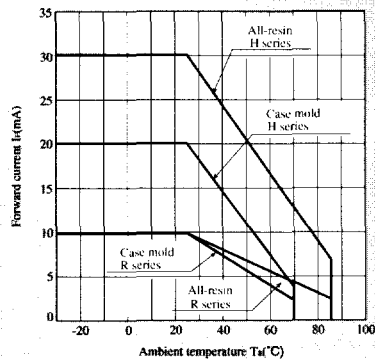
Type	Series	Radiation color	Power dissipation P (mW)	Forward current I _F (mA)	Peak forward current ¹ I _{FM} (mA)	Derating factor (mA/°C)		Reverse voltage V _R (V)	Operating temperature T _{op} (°C)	Storage temperature T _{stg} (°C)
						DC	Pulse			
Case mold	R	Red	25	10	50	0.18	0.91	5	-20 to +70	-30 to +80
	H	Yellow	50	20	50	0.36	0.91	5	-20 to +70	-30 to +80
	M	Yellow-green	38	15	50	0.27	0.91	5	-20 to +70	-30 to +80
Red		25	10	50	0.18	0.91	5			
All resin	R	Red	23	10	50	0.13	0.67	5	-25 to +85	-25 to +100
	H	Yellow	84	30	50	0.40	0.67	5	-25 to +85	-25 to +100
	M	Yellow-green	84	30	50	0.40	0.67	5	-25 to +85	-25 to +100
		Red	23	10	50	0.13	0.67	5		

¹I Duty ratio=0.1, Pulse width=0.1ms

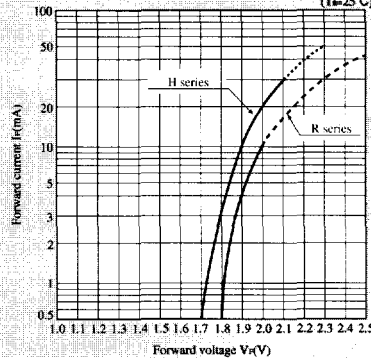
Electro-optical Characteristics (Figures shown below are values per dot.)

Type	Series	Radiation color	Forward voltage V _F (V)		Luminous intensity I _v (mcd)		Peak emission wavelength λ _p (nm)	Spectrum radiation bandwidth Δλ (nm)		Reverse current I _R (μA)		V _R (V)
			TYP.	MAX.	MIN.	TYP.		TYP.	I _F (mA)	MAX.		
Case mold	R	Red	1.9	2.5	0.15	0.3	695	100	5	10	4	
	H	Yellow	1.9	2.5	0.2	0.5	585	30	10	10	4	
	M	Yellow-green	2.0	2.5	0.2	0.5	565	30	10	10	4	
Red		1.9	2.5	0.15	0.3	695	100	5	10	4		
All resin	R	Red	1.9	2.3	0.3	0.9	695	100	5	10	4	
	H	Yellow	2.0	2.8	1.5	5.0	585	30	20	10	4	
	M	Yellow-green	2.1	2.8	0.6	1.4	565	30	20	10	4	
Red		1.9	2.3	0.3	0.9	695	100	5	10	4		

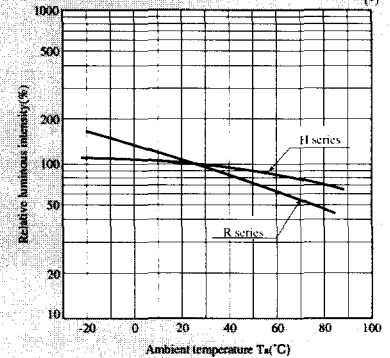
Forward Current Derating Curve



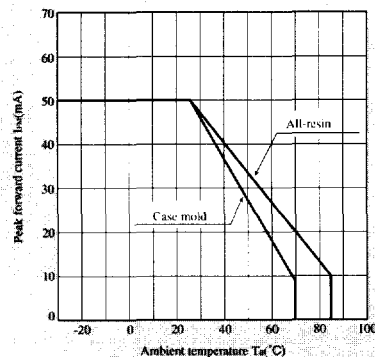
Forward Current vs. Forward Voltage (T_a=25°C)



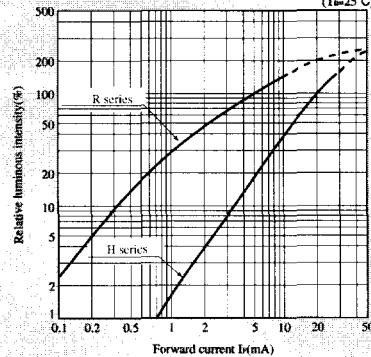
Luminous Intensity vs. Ambient Temperature (*)



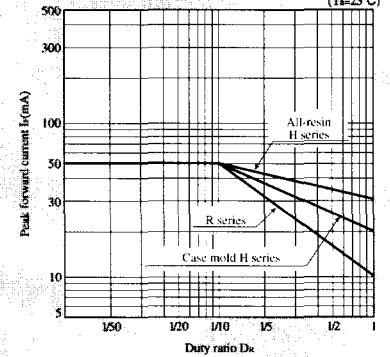
Peak Forward Current Derating Curve



Luminous Intensity vs. Forward Current (T_a=25°C)

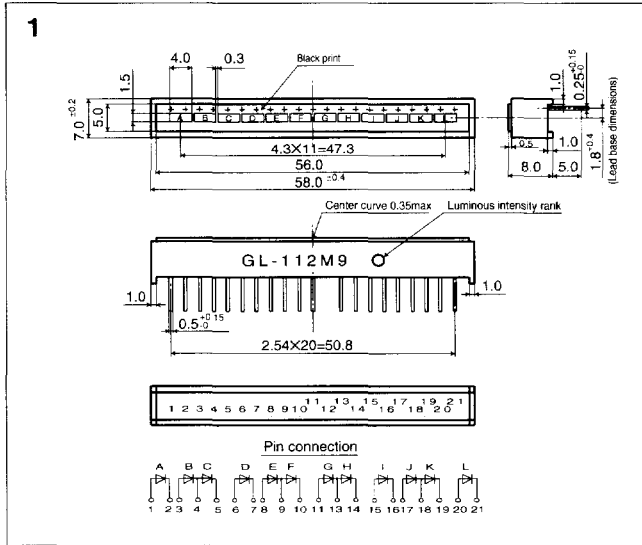


Duty Ratio vs. Peak Forward Current (T_a=25°C)

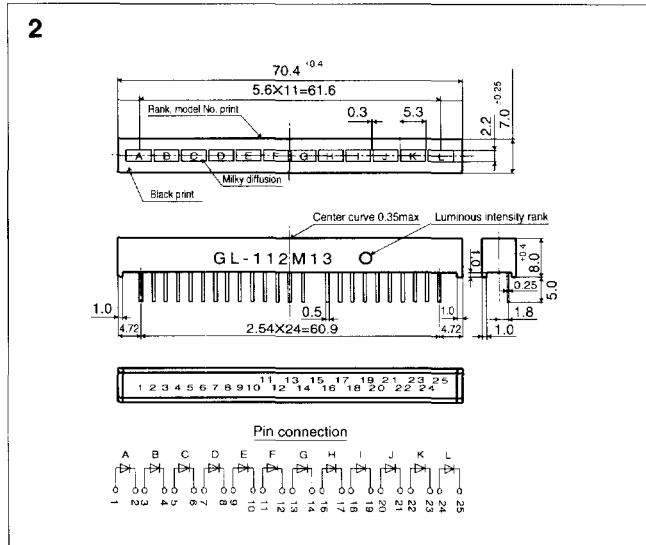


* As for current conditions, refer to I_F in electro-optical characteristics.

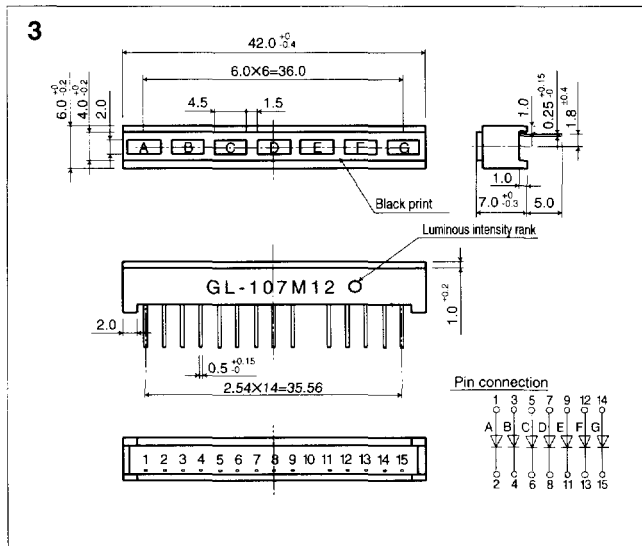
LED for Bar Graphic Display Outline Dimensions(Unit:mm)



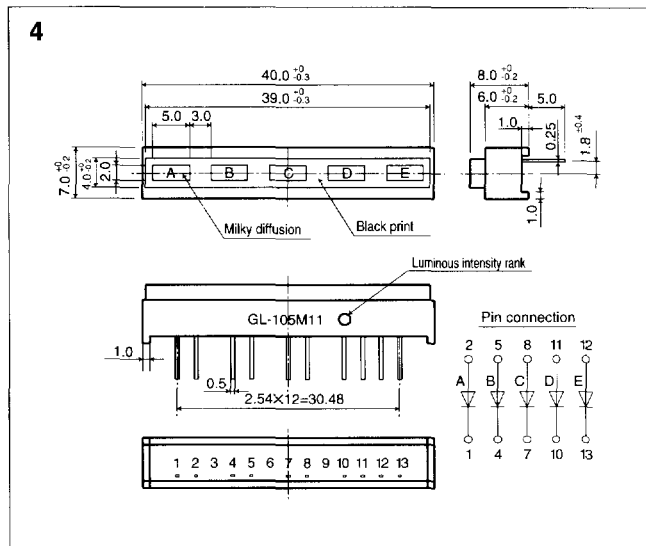
GL112□9 Series



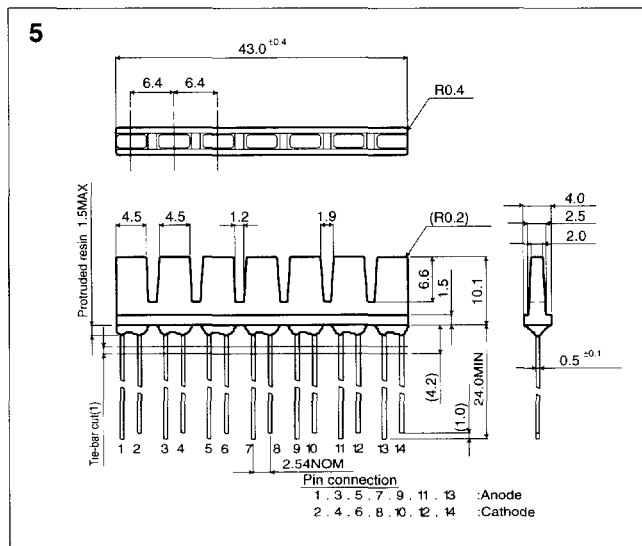
GL112□13 Series



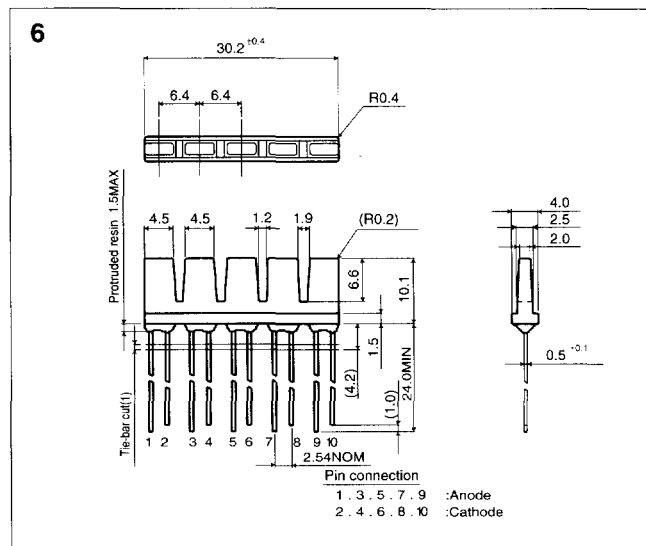
GL107□12 Series



GL105□11 Series



GL107□8 Series



GL105□8 Series

LED for Bar Graphic Display