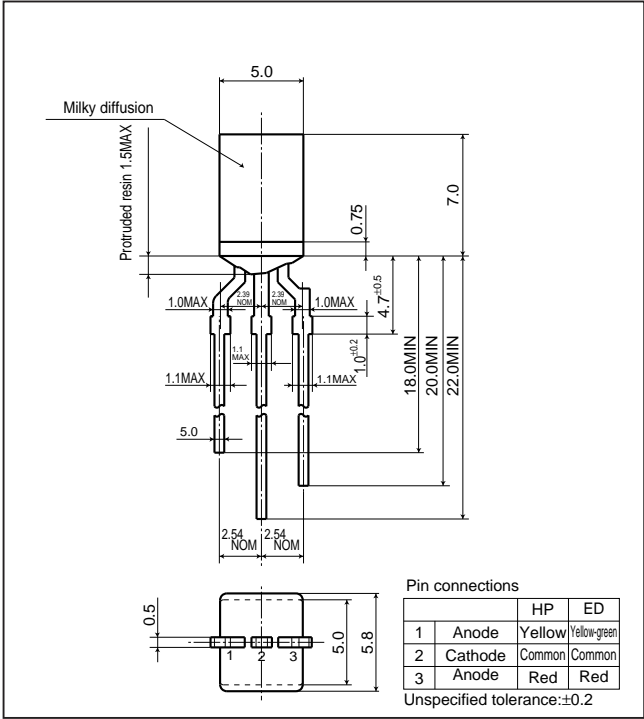


GL9□□4 series

5.0X5.0mm, Square Type, Milky Diffusion, Dichromatic LED Lamps for Indicator

Outline Dimensions (Unit : mm)



Absolute Maximum Ratings (Ta=25°C)

Model No.	Radiation color	Radiation material	Power dissipation P*1 (mW)	Forward current IF (mA)	Peak forward current IFM*2 (mA)	Derating factor (mA/°C)		Reverse voltage VR (V)	Operating temperature Topr (°C)	Storage temperature Tstg (°C)	Soldering temperature Tsol*3 (°C)
						DC	Pulse				
GL9ED4	Yellow-green	GaP	84	30	50	0.40	0.67	5	-25 to +85	-25 to +100	260
	Red	GaAsP on GaP	84	30	50	0.40	0.67	5			
GL9HP4	Yellow	GaAsP on GaP	50	20	50	0.28	0.67	5	-25 to +85	-25 to +100	260
	Red	GaP	35	15	50	0.20	0.67	5			

*1 The value is specified under the condition that either color is lightened separately. When the both diodes are lightened simultaneously, the power dissipation of each diode should be less than the half of the value specified in this table.

*2 Duty ratio=1/10, Pulse width=0.1ms

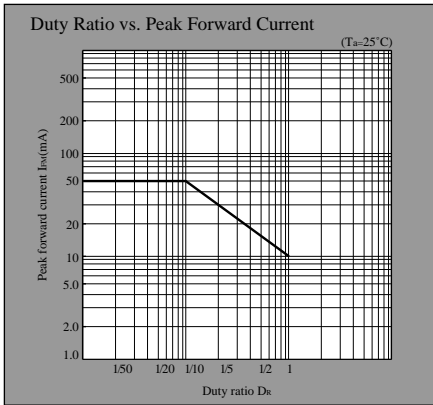
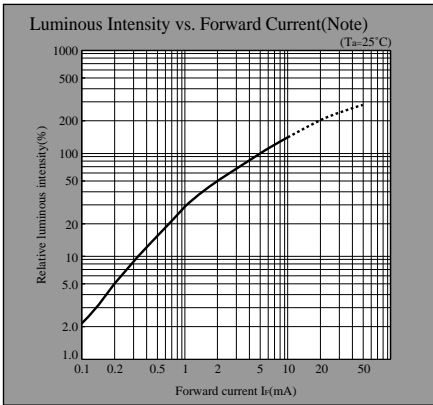
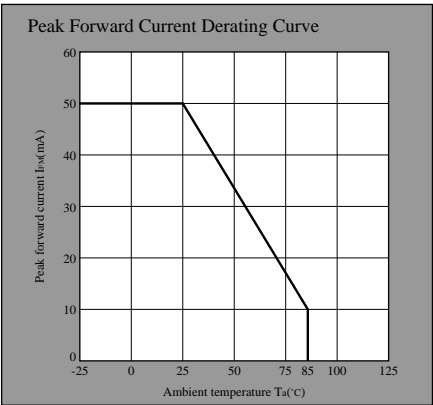
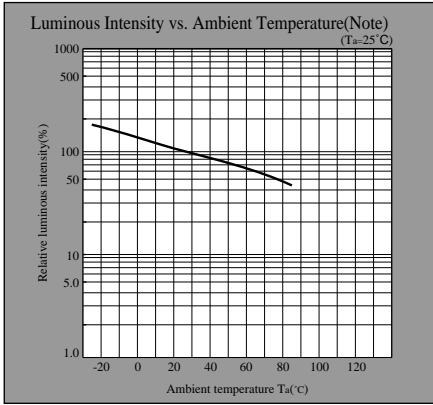
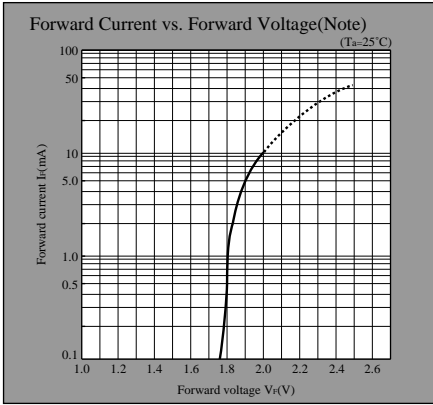
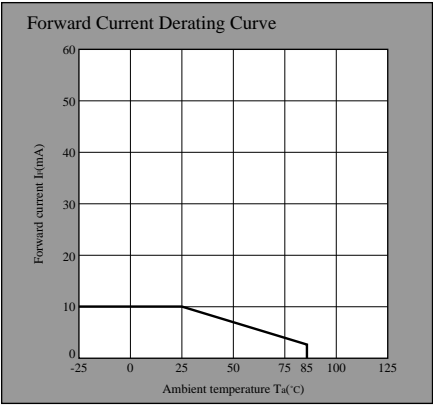
*3 5s or less(At the position of 1.6mm or more from the bottom face of resin package)

Electro-optical Characteristics (Ta=25°C)

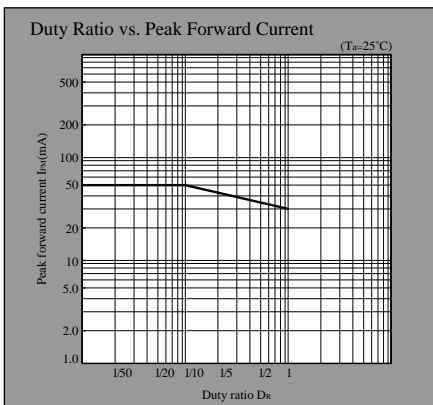
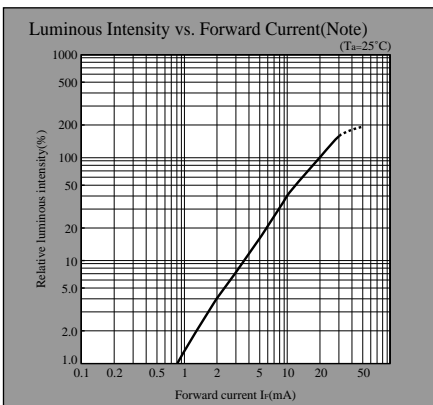
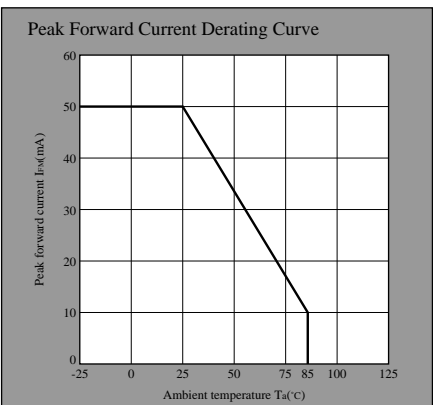
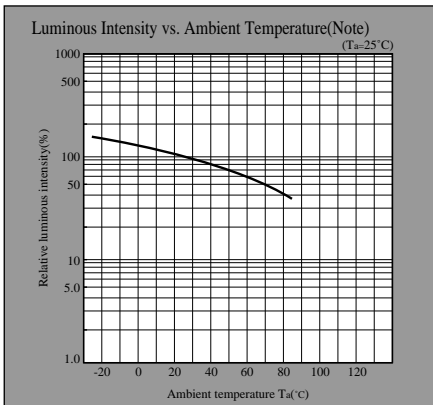
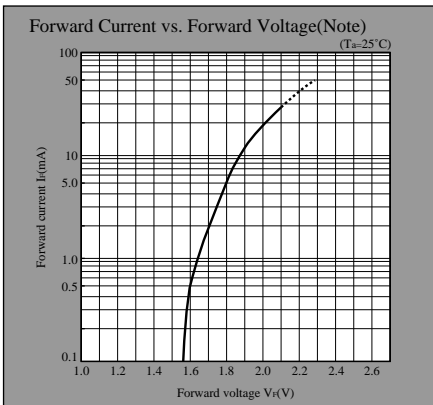
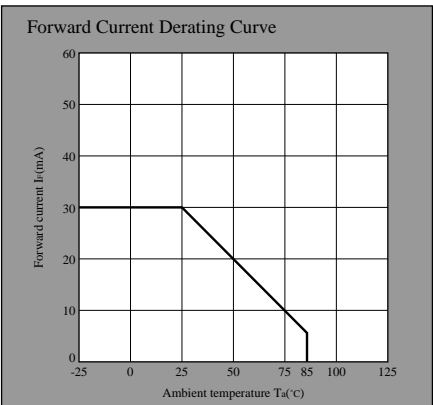
Lens type	Model No.	Radiation color	Forward voltage VF(V)		Peak emission wavelength		Luminous intensity		Spectrum radiation bandwidth		Reverse current		Terminal capacitance		Page for characteristics diagrams
			TYP	MAX	λp(nm) TYP	IF (mA)	IV(mcd) TYP	IF (mA)	Δλ(nm) TYP	IF (mA)	IR(μA) MAX	VR (V)	CI(pF) TYP	(MHz)	
Milky diffusion	GL9ED4	Yellow-green	2.1	2.8	565	20	7.0	20	30	20	10	4	35	1	→
		Red	2.0	2.8	635	20	2.0	20	35	20	10	4	20	1	→
	GL9HP4	Yellow	1.9	2.5	585	10	1.2	10	30	10	10	4	35	1	→
		Red	1.9	2.3	695	10	0.9	10	100	10	10	4	55	1	→

LED Lamp Characteristics Diagrams

PR series



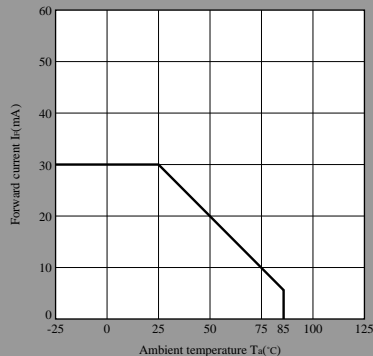
HD series



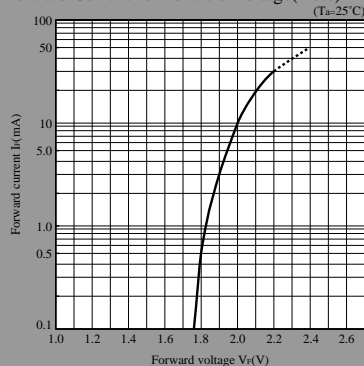
Note) Characteristics shown in diagrams are typical values. (not assurance value)

(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.
(Internet) • Data for sharp's optoelectronic/power device is provided for internet.(Address <http://www.sharp.co.jp/ecg/>)

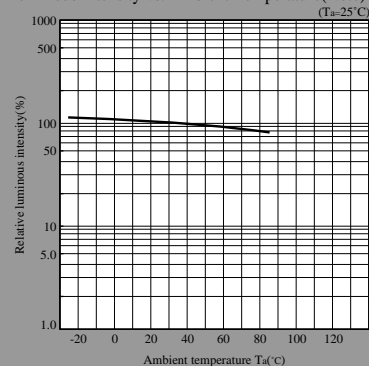
Forward Current Derating Curve



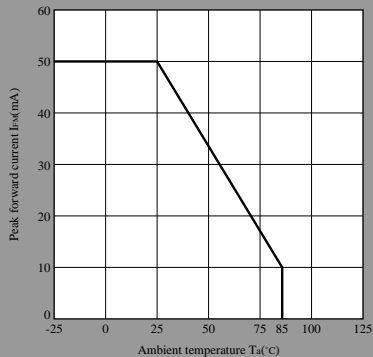
Forward Current vs. Forward Voltage(Note)



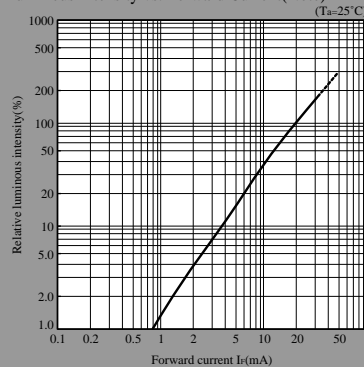
Luminous Intensity vs. Ambient Temperature(Note)



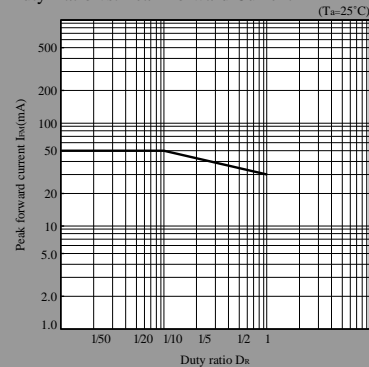
Peak Forward Current Derating Curve



Luminous Intensity vs. Forward Current(Note)



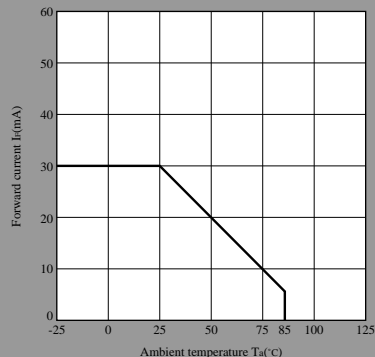
Duty Ratio vs. Peak Forward Current



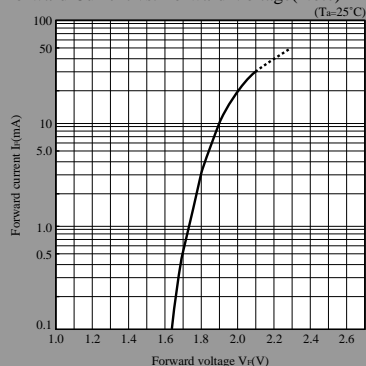
Note) Characteristics shown in diagrams are typical values. (not assurance value)

HY series

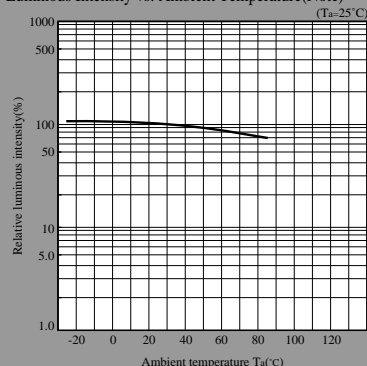
Forward Current Derating Curve



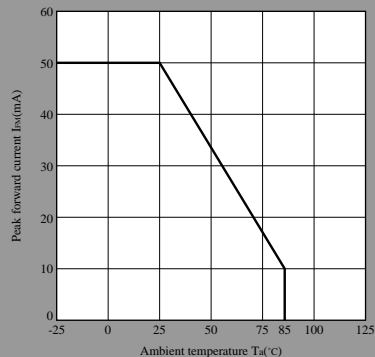
Forward Current vs. Forward Voltage(Note)



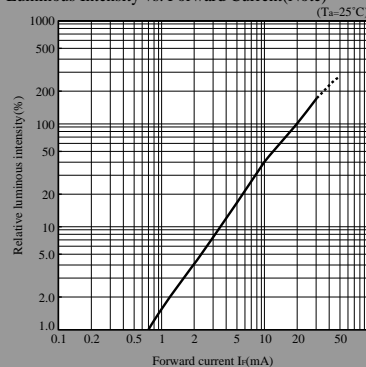
Luminous Intensity vs. Ambient Temperature(Note)



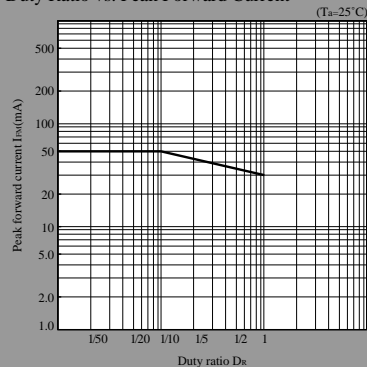
Peak Forward Current Derating Curve



Luminous Intensity vs. Forward Current(Note)



Duty Ratio vs. Peak Forward Current



Note) Characteristics shown in diagrams are typical values. (not assurance value)