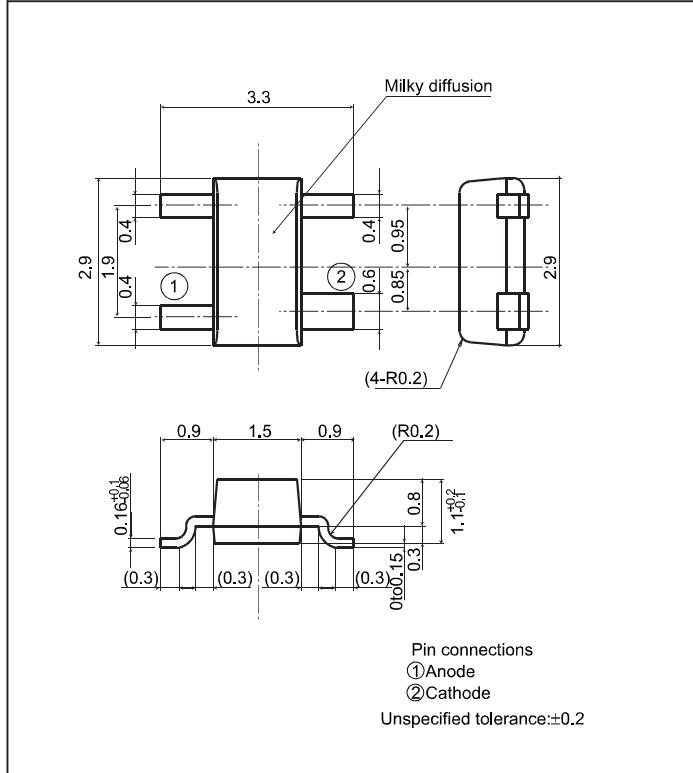


# LT1□53A series

## 3.3X2.9mm, 1.1mm Thickness, Milky Diffusion Chip LED Devices

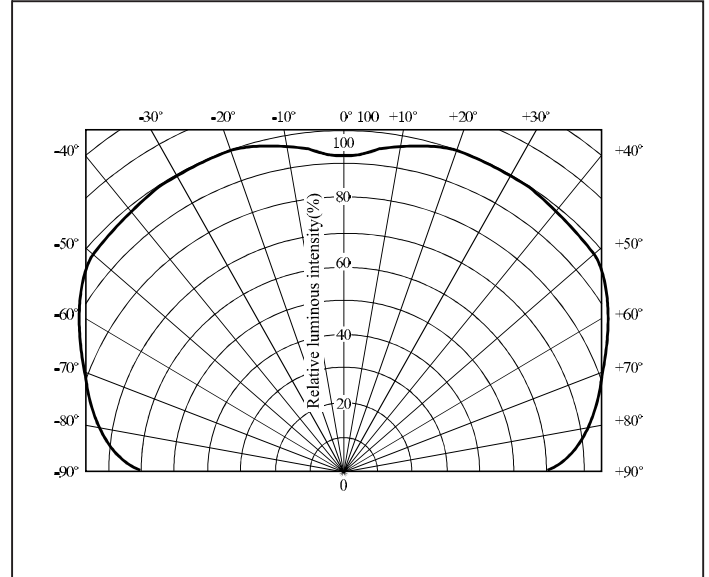
### Outline Dimensions

(Unit : mm)



### Radiation Diagram

(Ta=25°C)



### Absolute Maximum Ratings

(Ta=25°C)

Model No.	Radiation color	Radiation material	Power dissipation P (mW)	Forward current IF (mA)	Peak forward current IFM*1 (mA)	Derating factor (mA/°C)		Reverse voltage VR (V)	Operating temperature Topr (°C)	Storage temperature Tstg (°C)	Soldering temperature Tsol*2 (°C)
						DC	Pulse				
LT1P53A	Red	GaP	23	10	50	0.13	0.67	5	-25 to +85	-25 to +100	350
LT1D53A	Red	GaAsP on GaP	85	30	50	0.40	0.67	5	-25 to +85	-25 to +100	350
LT1S53A	Sunset orange	GaAsP on GaP	85	30	50	0.40	0.67	5	-25 to +85	-25 to +100	350
LT1H53A	Yellow	GaAsP on GaP	50	20	50	0.27	0.67	5	-25 to +85	-25 to +100	350
LT1E53A	Yellow-green	GaP	50	20	50	0.27	0.67	5	-25 to +85	-25 to +100	350
LT1K53A	Green	GaP	50	20	50	0.27	0.67	5	-25 to +85	-25 to +100	350

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

\*2 For 3s or less at the temperature of hand soldering. Temperature of reflow soldering is shown on the below page.

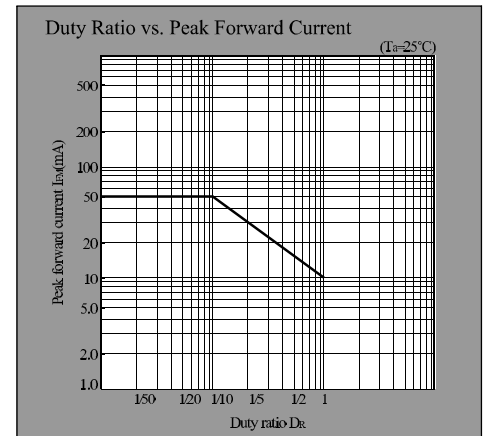
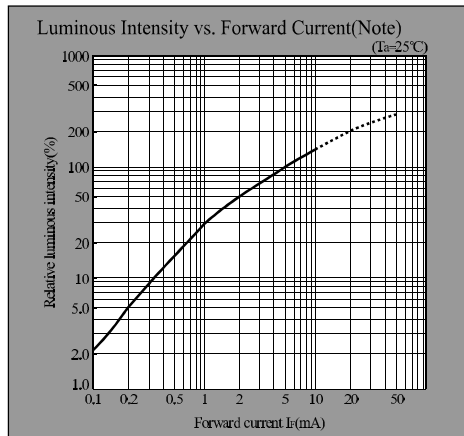
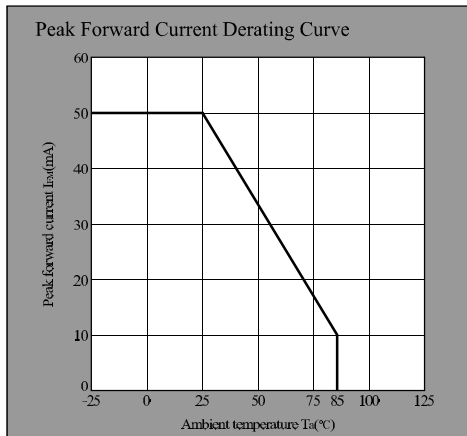
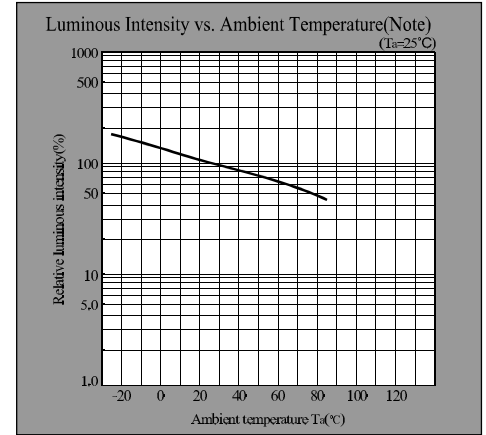
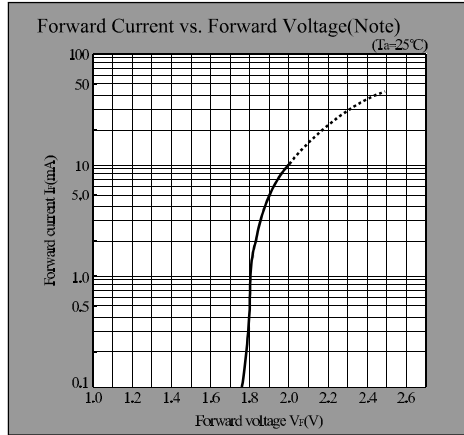
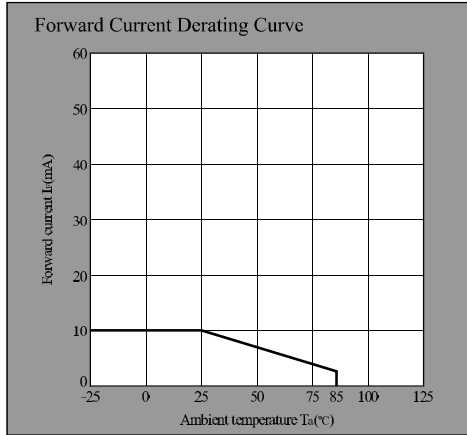
### Electro-optical Characteristics

(Ta=25°C)

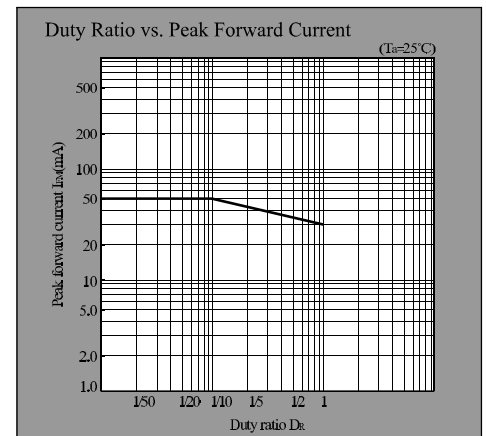
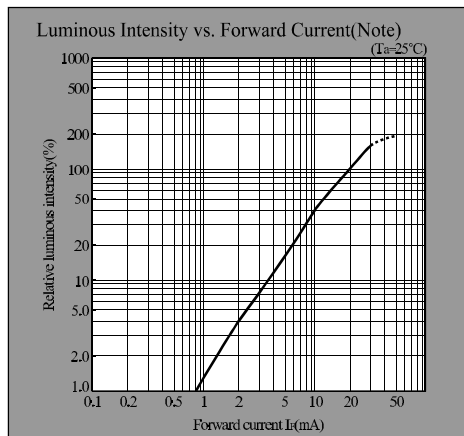
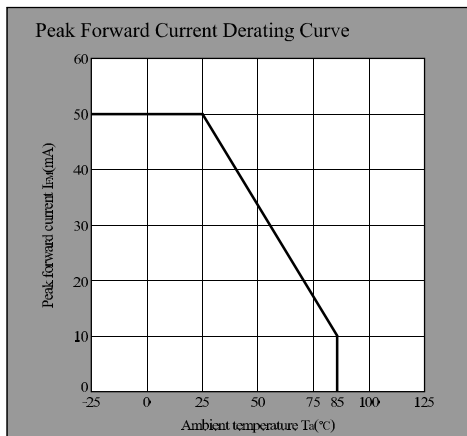
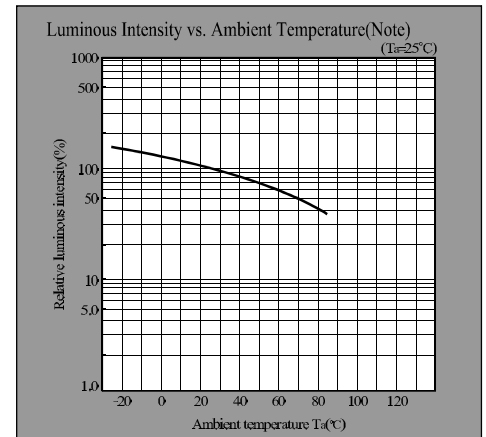
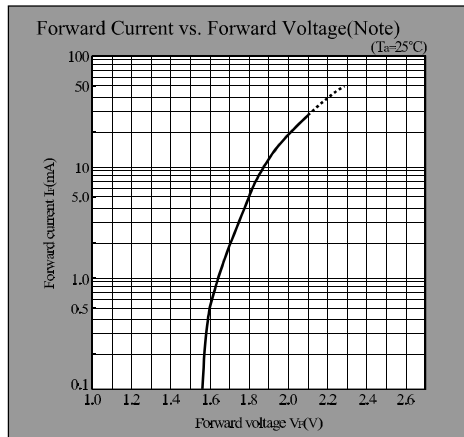
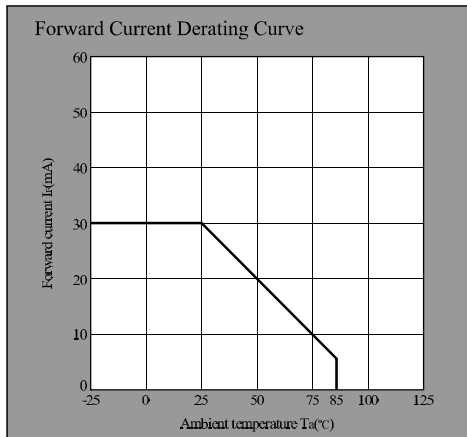
Lens type	Model No.	Forward voltage VF(V)		Peak emission wavelength λp(nm)		Luminous intensity Iv(mcd)		Spectrum radiation bandwidth Δλ(nm)		Reverse current IR(μA)		Terminal capacitance C(pF)		Page for characteristics diagrams
		TYP	MAX	TYP	IF (mA)	TYP	IF (mA)	TYP	IF (mA)	MAX	VR (V)	TYP	(MHz)	
Milky diffusion	LT1P53A	1.9	2.3	695	5	1.4	5	100	5	10	4	55	1	→
	LT1D53A	2.0	2.8	635	20	9.6	20	35	20	10	4	20	1	→
	LT1S53A	2.0	2.8	610	20	7.8	20	35	20	10	4	15	1	→
	LT1H53A	1.9	2.5	585	10	3.7	10	30	10	10	4	35	1	→
	LT1E53A	1.85	2.5	565	10	4.8	10	30	10	10	4	35	1	→
	LT1K53A	1.95	2.5	555	10	2.2	10	25	10	10	4	40	1	→

# LED Lamp Characteristics Diagrams

## PR series



## HD series



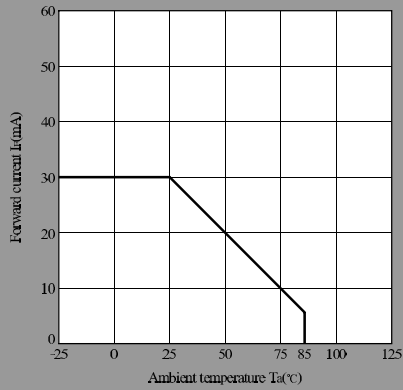
Note) Characteristics shown in diagrams are typical values. (not assurance value)

(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/>)

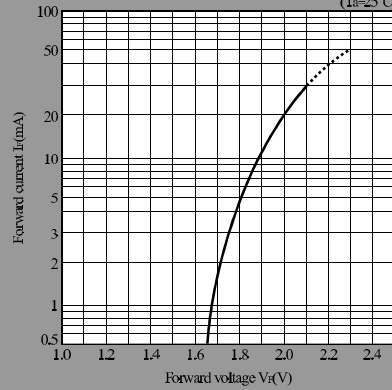
# LED Lamp Characteristics Diagrams

## HS series

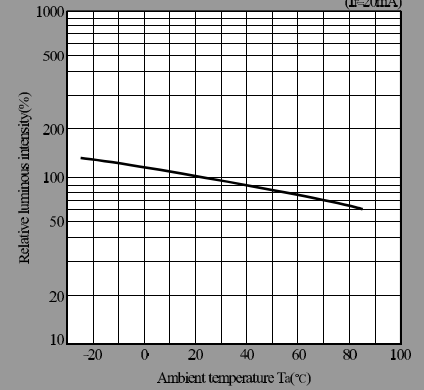
Forward Current Derating Curve



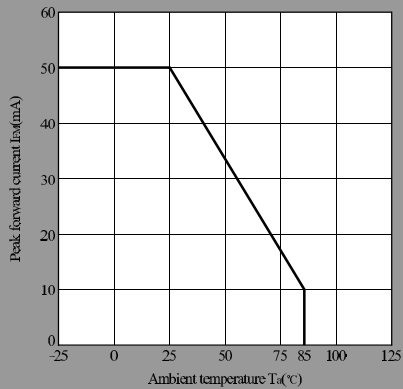
Forward Current vs. Forward Voltage(Note)



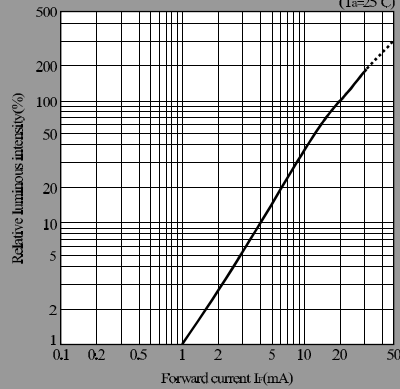
Luminous Intensity vs. Ambient Temperature(Note)



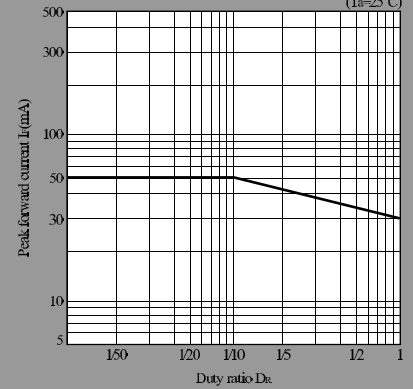
Peak Forward Current Derating Curve



Luminous Intensity vs. Forward Current(Note)

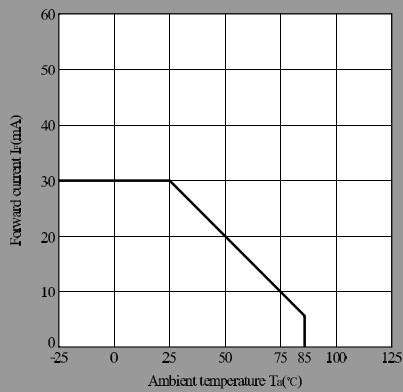


Duty Ratio vs. Peak Forward Current

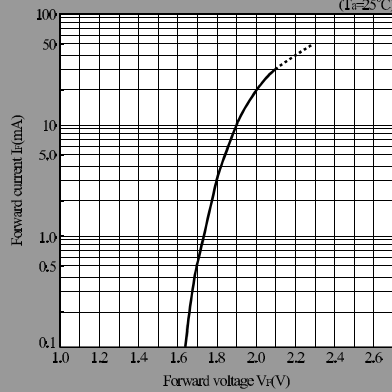


## HY series

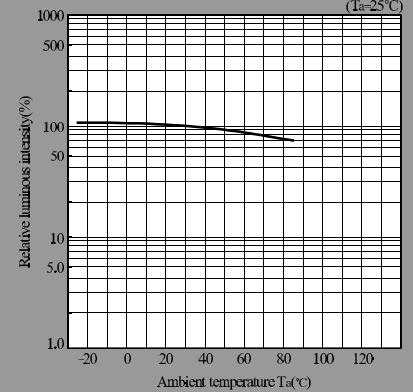
Forward Current Derating Curve



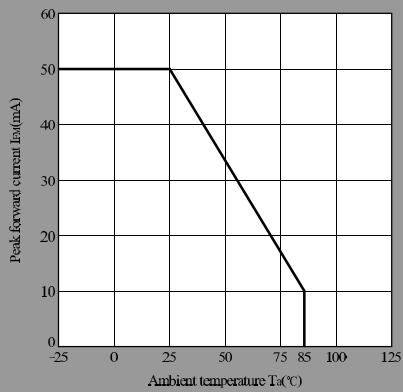
Forward Current vs. Forward Voltage(Note)



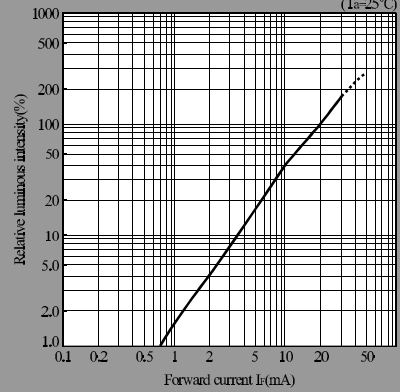
Luminous Intensity vs. Ambient Temperature(Note)



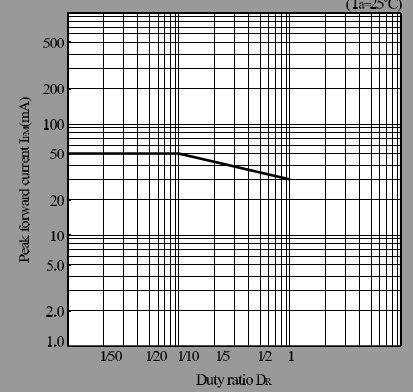
Peak Forward Current Derating Curve



Luminous Intensity vs. Forward Current(Note)



Duty Ratio vs. Peak Forward Current

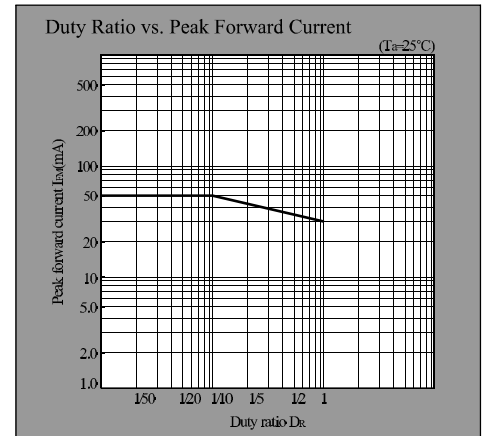
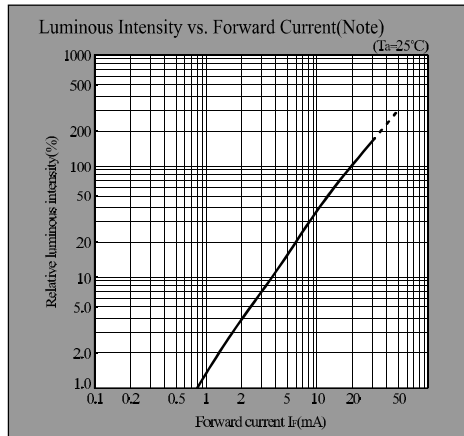
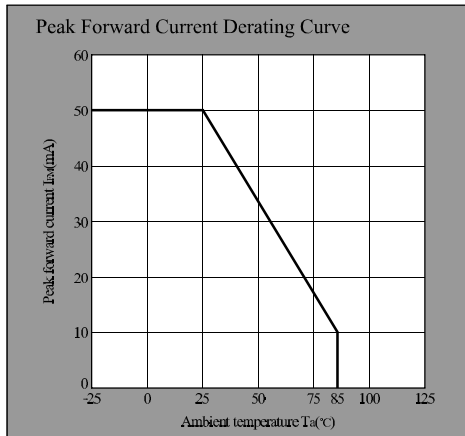
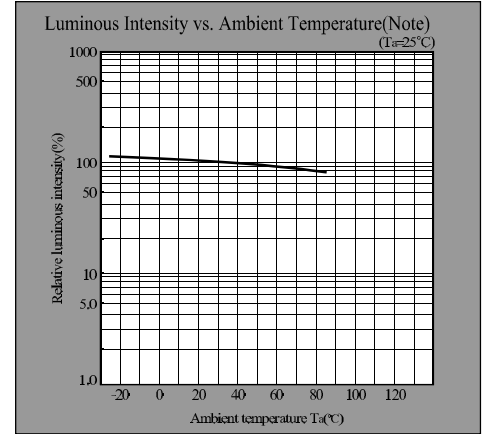
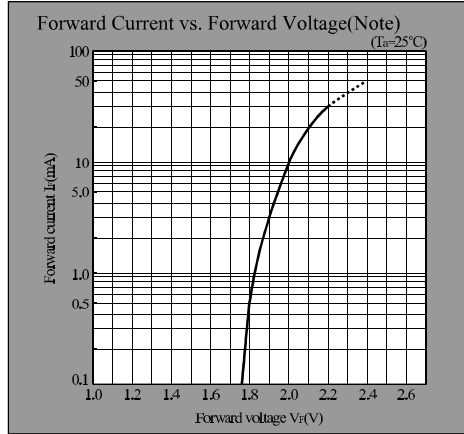
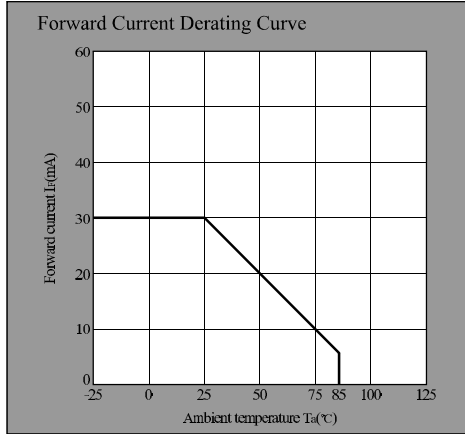


Note) Characteristics shown in diagrams are typical values. (not assurance value)

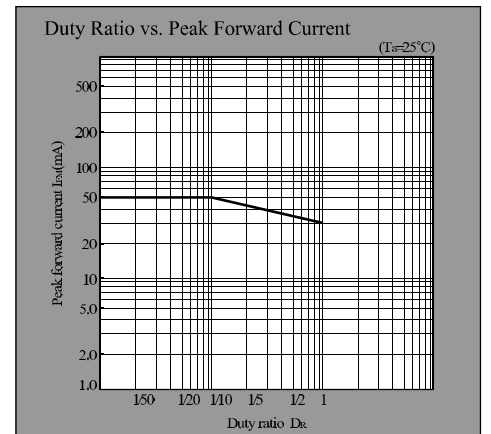
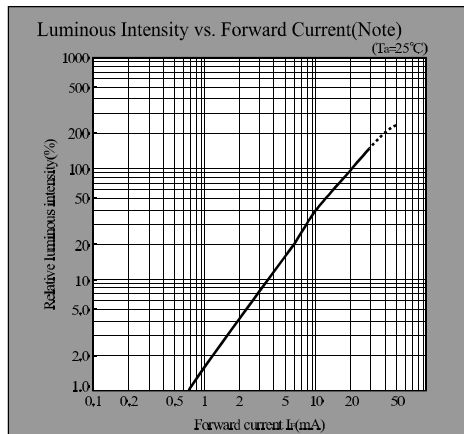
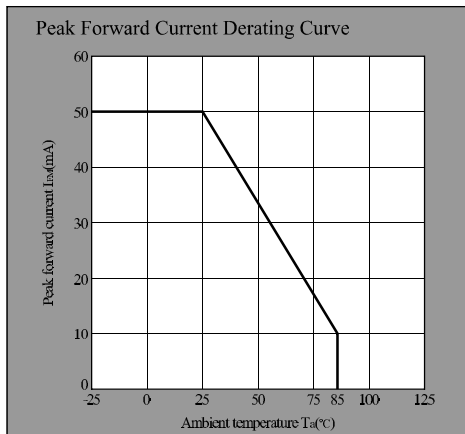
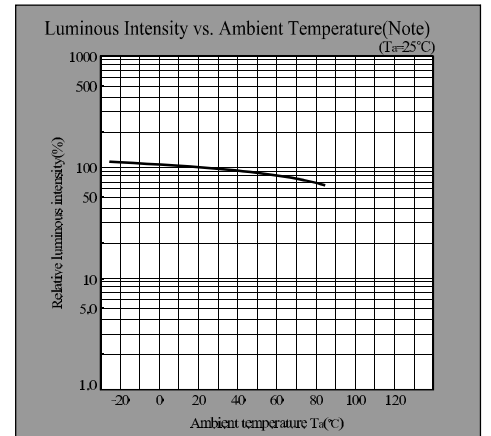
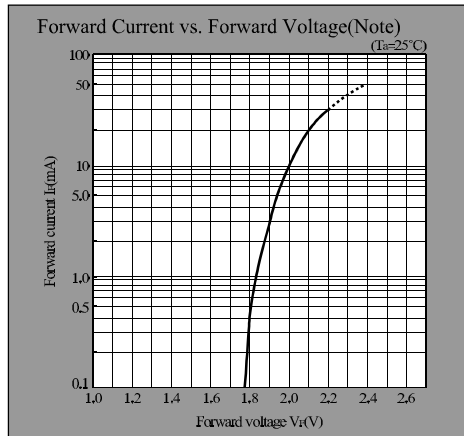
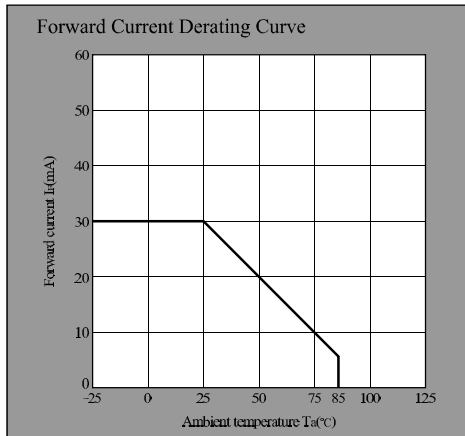
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# LED Lamp Characteristics Diagrams

## EG series



## KG series



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