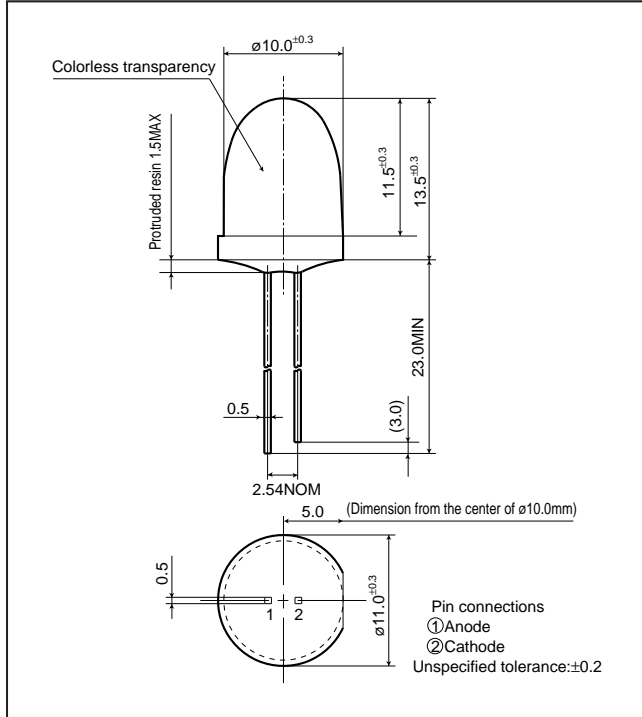


# LT9560□ series

ø10mm, Cylinder Type, Colorless Transparency, High-luminosity Large LED lamps for Outdoor Use

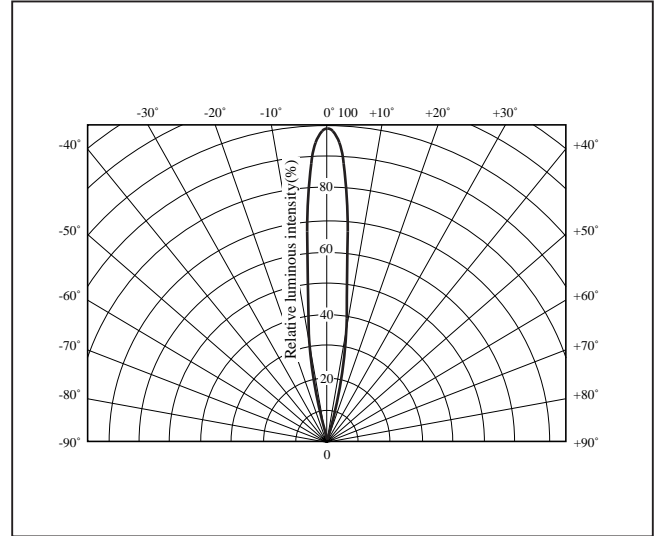
## Outline Dimensions

(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 <sup>*1</sup> (mA)	Derating factor (mA/°C)		Reverse voltage VR (V)	Operating temperature T <sub>opr</sub> (°C)	Storage temperature T <sub>stg</sub> (°C)	Soldering temperature T <sub>sol</sub> <sup>*3</sup> (°C)
						DC	Pulse				
LT9560U	Red(Super-luminosity)	GaAlAs on GaAlAs	75	30	50	0.40	0.67	4	-25 to +85	-25 to +100	260
LT9560T	Red(High-luminosity)	GaAlAs on GaAs	110	50	300 <sup>*2</sup>	0.67	4.00	5	-25 to +85	-25 to +100	260
LT9560D	Red	GaAsP on GaP	168	60	100	0.80	1.33	5	-25 to +85	-25 to +100	260
LT9560S	Sunset orange	GaAsP on GaP	168	60	100	0.80	1.33	5	-25 to +85	-25 to +100	260
LT9560H	Yellow	GaAsP on GaP	168	60	100	0.80	1.33	5	-25 to +85	-25 to +100	260
LT9560E	Yellow-green	GaP	168	60	100	0.80	1.33	5	-25 to +85	-25 to +100	260
LT9560J	Orange(Super-luminosity)	AlGaInP	130	50	100	0.67	1.33	4.1	-25 to +85	-25 to +100	260
LT9560V	Yellow(Super-luminosity)	AlGaInP	130	50	100	0.67	1.33	4.1	-25 to +85	-25 to +100	260

\*1 Duty ratio=1/10, Pulse width=0.1ms \*2 Duty ratio=1/16, Pulse width≤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.	Forward voltage VF(V)		Peak emission wavelength		Luminous intensity		Spectrum radiation bandwidth		Reverse current		Terminal capacitance		Page for characteristics diagrams
		TYP	MAX	λ <sub>p</sub> (nm) TYP	IF (mA)	Iv(mcd) TYP	IF (mA)	Δλ(nm) TYP	IF (mA)	IR(μA) MAX	VR (V)	Ci(pF) TYP	(MHz)	
Colorless transparency	LT9560U	1.85	2.5	660	20	8 000	20	20	20	100	3	25	1	→
	LT9560T	1.75	2.2	660	20	2 000	20	20	20	10	4	30	1	→
	LT9560D	2.0	2.8	635	40	1 000	40	35	40	10	4	30	1	→
	LT9560S	2.0	2.8	610	40	1 000	40	35	40	10	4	15	1	→
	LT9560H	2.0	2.8	585	40	700	40	35	40	10	4	30	1	→
	LT9560E	2.2	2.8	565	40	1 200	40	30	40	10	4	70	1	→
	LT9560J	1.9	2.6	620	20	12 000	20	18	20	100	4	26	1	→
	LT9560V	1.9	2.6	590	20	6 000	20	13	20	100	4	24	1	→

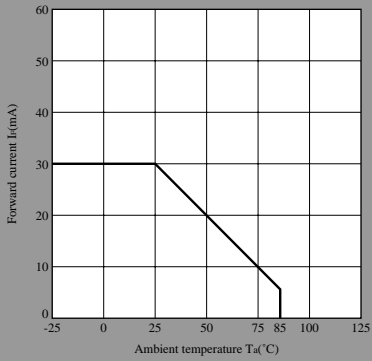
(Notice) • In the absence of confirmation by device specification sheets, SHARP takes no responsibility for any defects that may occur in equipment using any SHARP devices shown in catalogs, data books, etc. Contact SHARP in order to obtain the latest device specification sheets before using any SHARP device.

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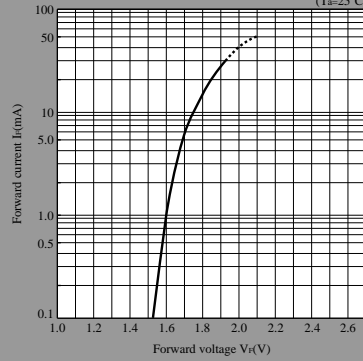
# LED Lamp Characteristics Diagrams

## UR series

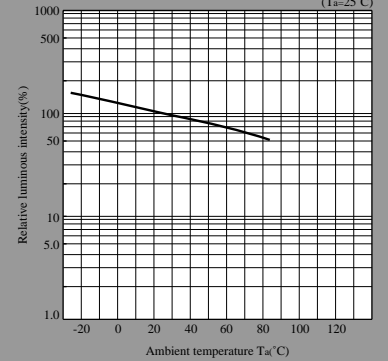
Forward Current Derating Curve



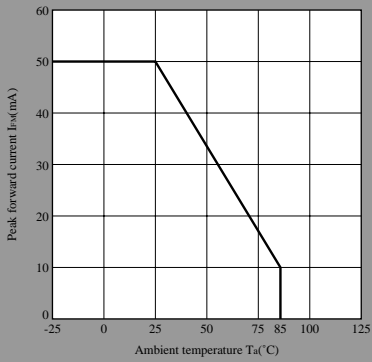
Forward Current vs. Forward Voltage(Note)



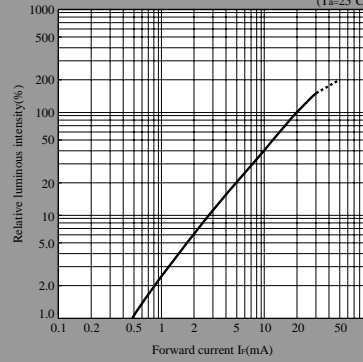
Luminous Intensity vs. Ambient Temperature(Note)



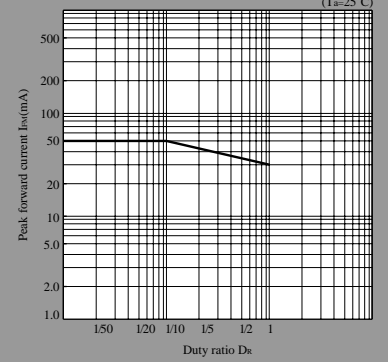
Peak Forward Current Derating Curve



Luminous Intensity vs. Forward Current(Note)

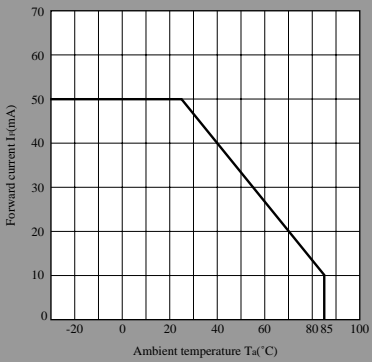


Duty Ratio vs. Peak Forward Current

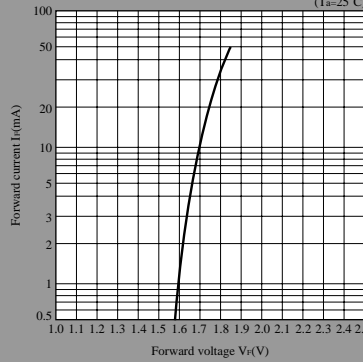


## TR series

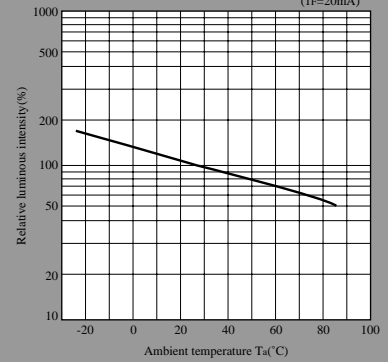
Forward Current Derating Curve



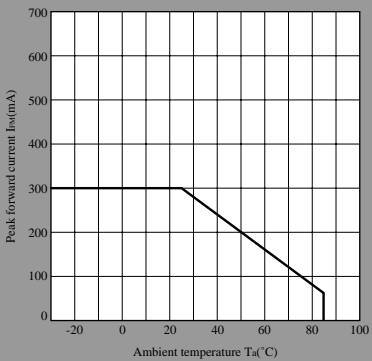
Forward Current vs. Forward Voltage(Note)



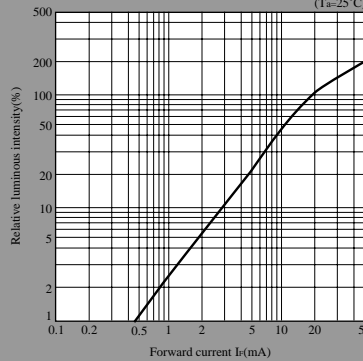
Luminous Intensity vs. Ambient Temperature(Note)



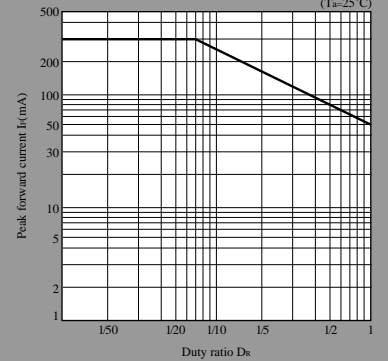
Peak Forward Current Derating Curve



Luminous Intensity vs. Forward Current(Note)



Duty Ratio vs. Peak Forward Current

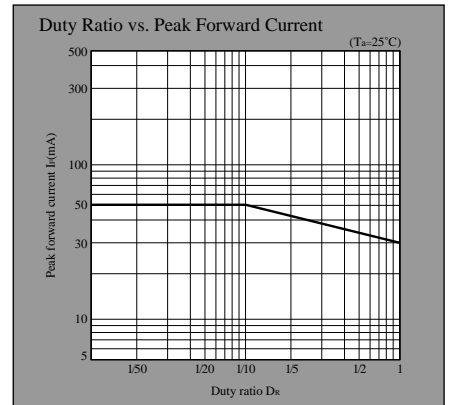
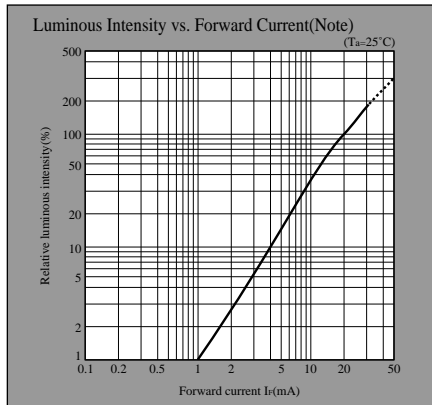
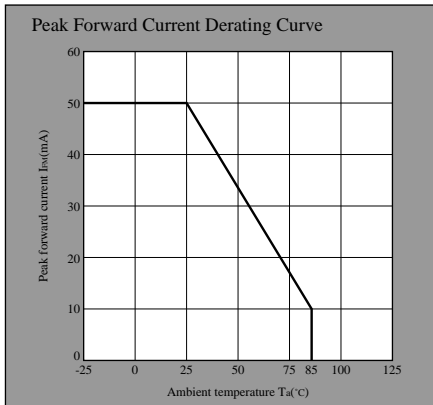
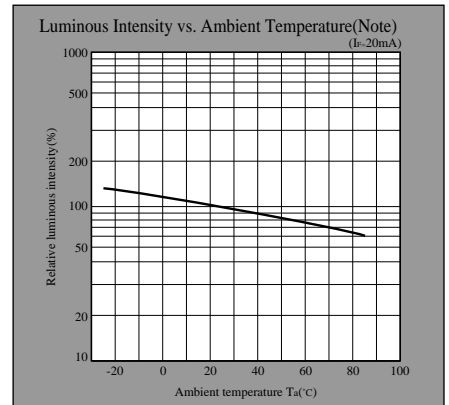
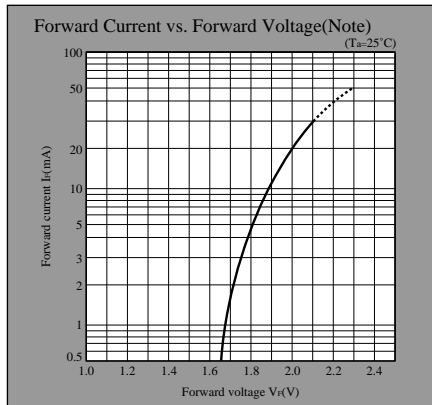
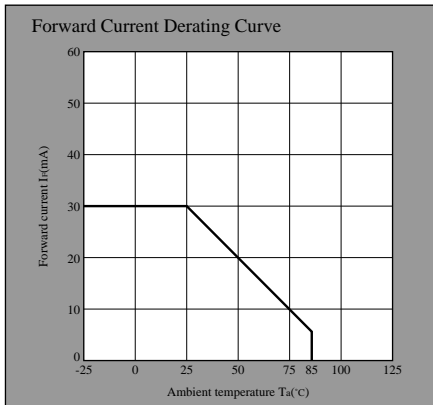


Note) Characteristics shown in diagrams are typical values. (not assurance value)

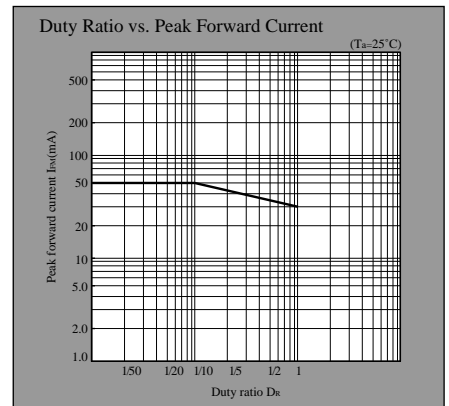
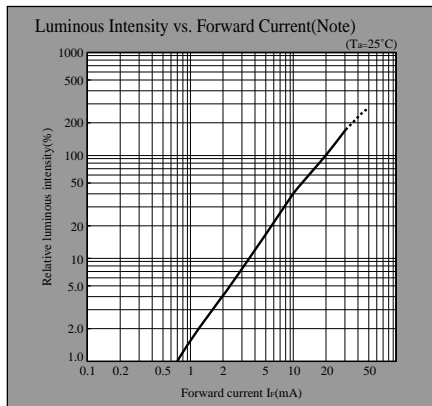
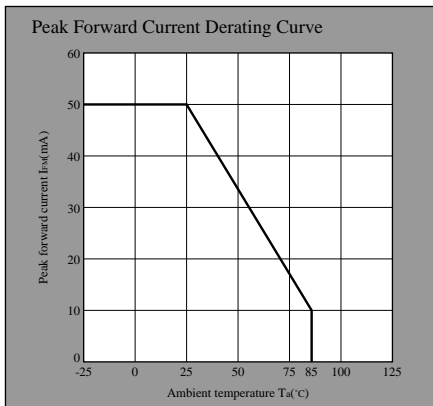
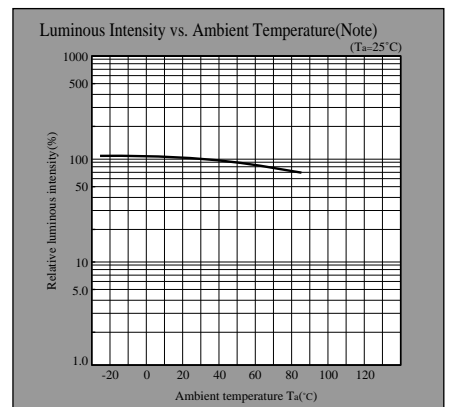
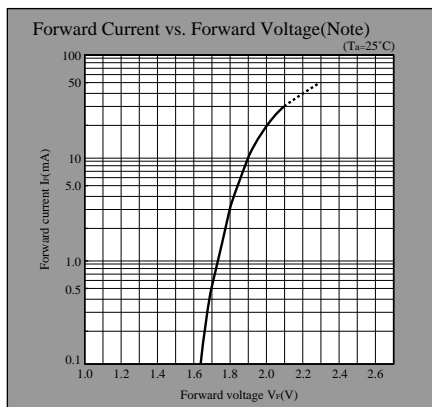
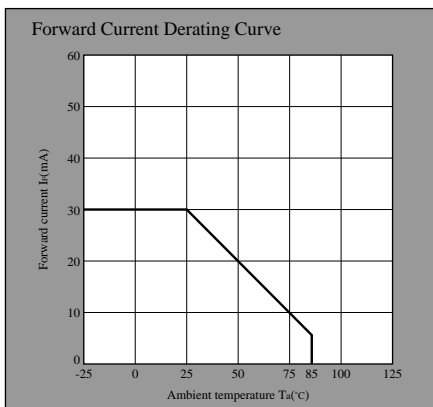
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# LED Lamp Characteristics Diagrams

## HS series



## HY series

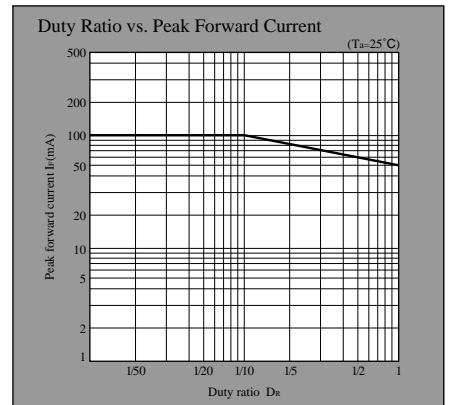
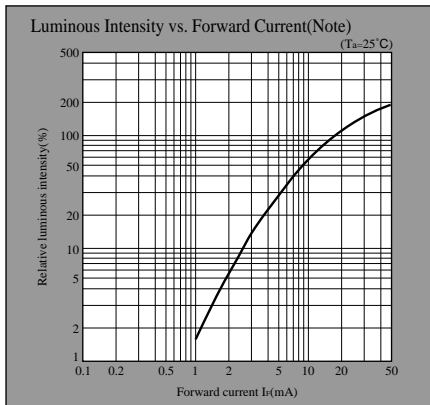
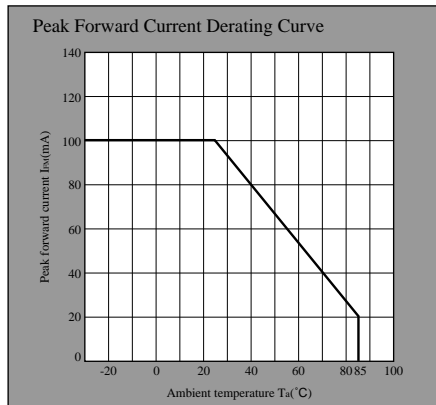
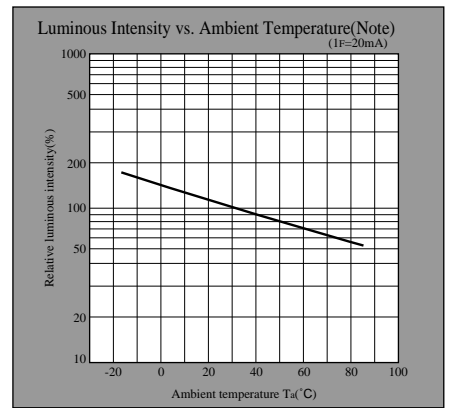
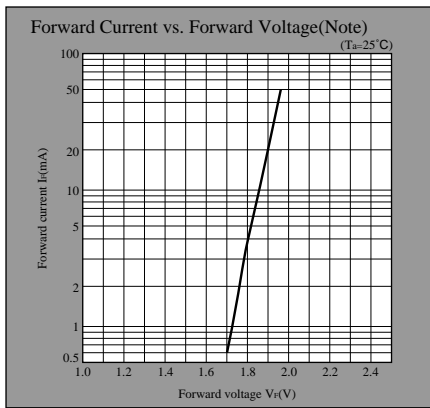
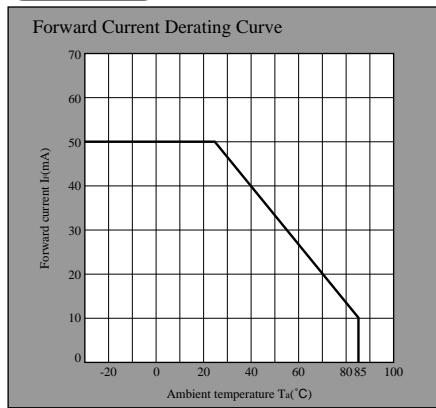


Note) Characteristics shown in diagrams are typical values. (not assurance value)

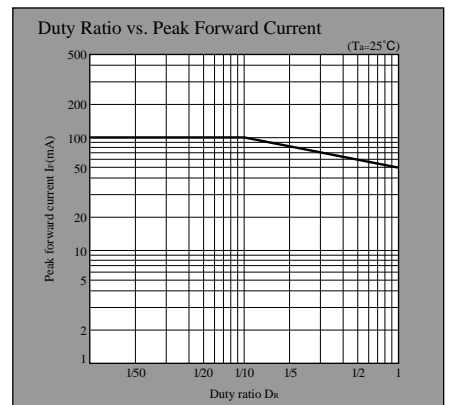
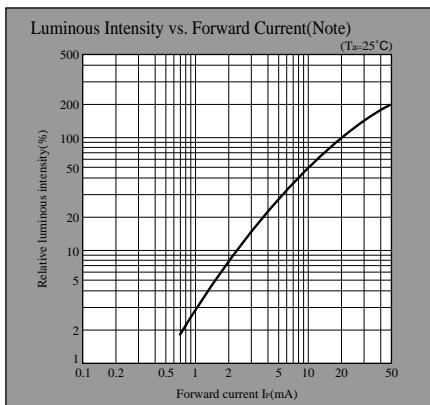
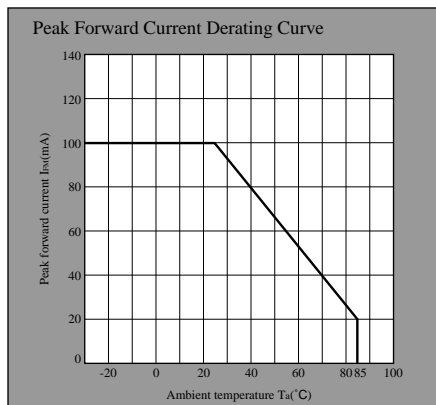
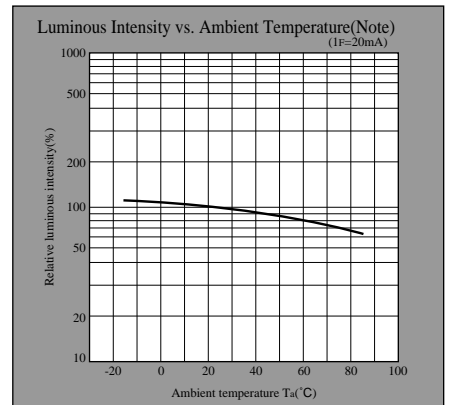
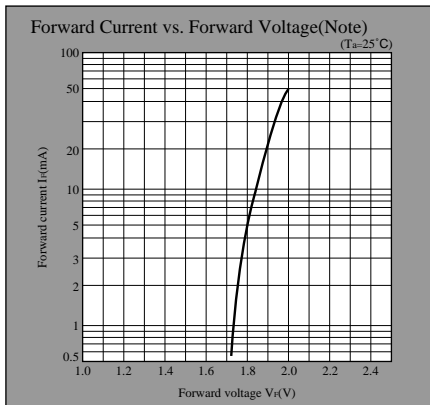
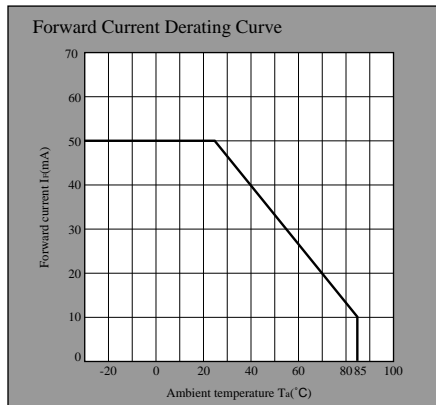
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# LED Lamp Characteristics Diagrams

## HV series



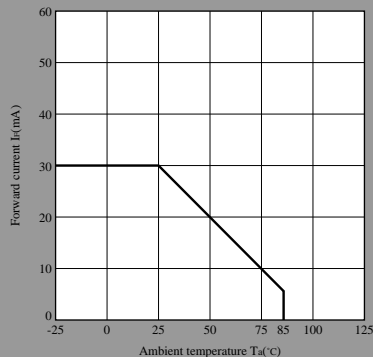
## HJ series



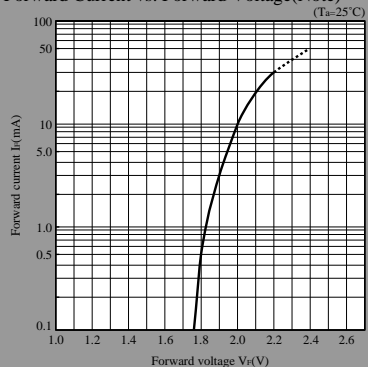
Note) Characteristics shown in diagrams are typical values. (not assurance value)

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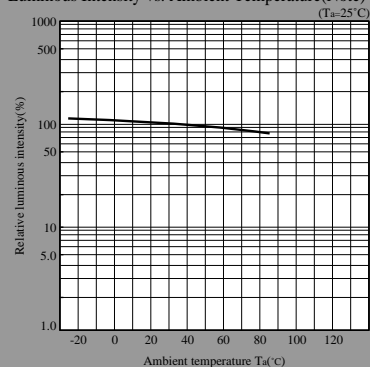
Forward Current Derating Curve



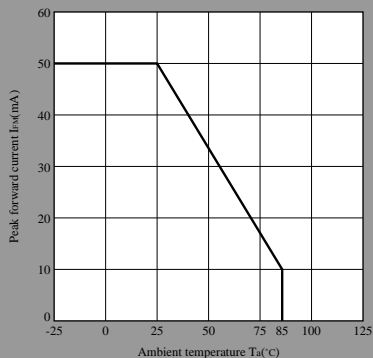
Forward Current vs. Forward Voltage(Note)



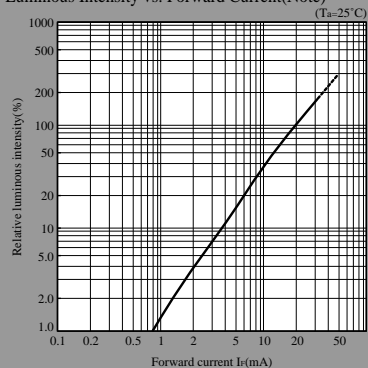
Luminous Intensity vs. Ambient Temperature(Note)



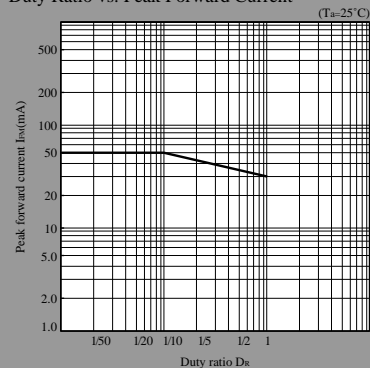
Peak Forward Current Derating Curve



Luminous Intensity vs. Forward Current(Note)



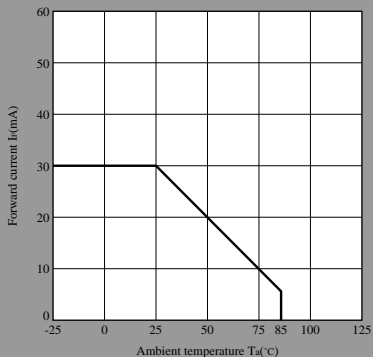
Duty Ratio vs. Peak Forward Current



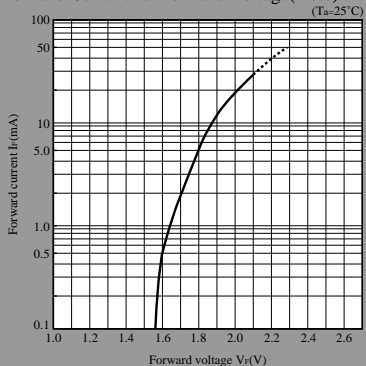
Note) Characteristics shown in diagrams are typical values. (not assurance value)

# HD series

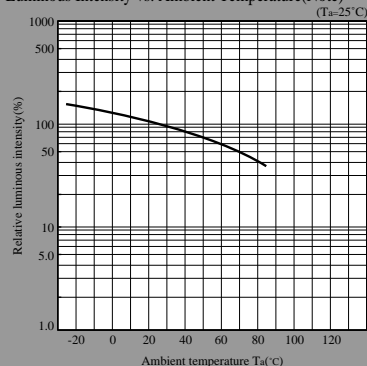
### Forward Current Derating Curve



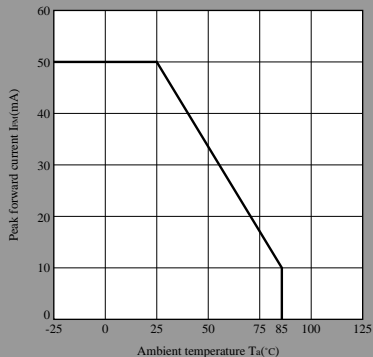
### Forward Current vs. Forward Voltage(Note)



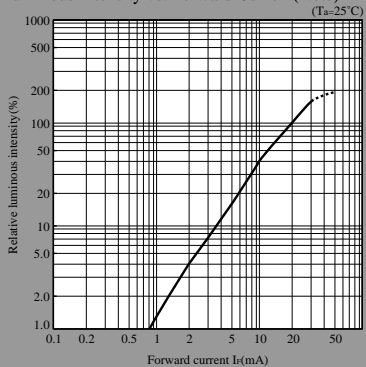
### Luminous Intensity vs. Ambient Temperature(Note)



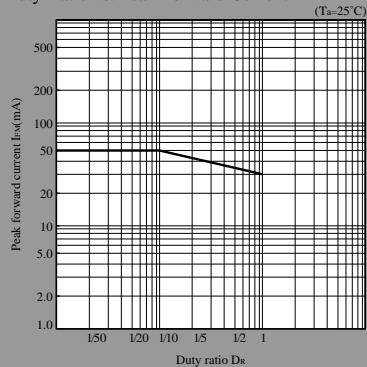
### Peak Forward Current Derating Curve



### Luminous Intensity vs. Forward Current(Note)



### Duty Ratio vs. Peak Forward Current



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