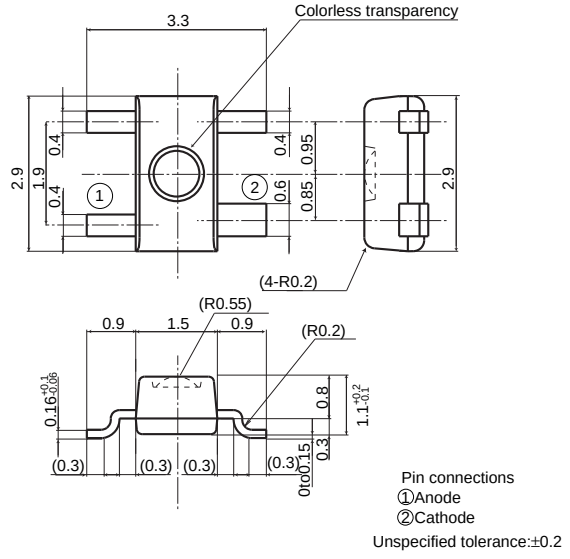
LT1❑82A series

3.3×2.9mm, 1.1mm Thickness, High-luminosity Chip LED Devices with Lens

■ Outline Dimensions

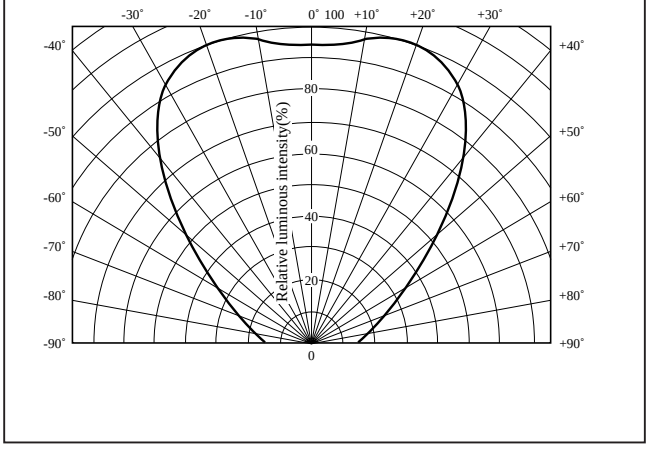
(Unit : mm)



U,T type:Polarity faces in the opposite direction.

■ Radiation Diagram

(Ta=25˚C)



■ Absolute Maximum Ratings

(Ta=25˚C)

Model No.	Radiation color	Radiation material	Power dissipation P (mW)	Forward current I_F (mA)	Peak forward current I_{FM}*1 (mA)	Derating factor (mA/˚C) DC	Derating factor (mA/˚C) Pulse	Reverse voltage V_R (V)	Operating temperature T_{opr} (˚C)	Storage temperature T_{stg} (˚C)	Soldering temperature T_{sol}*2 (˚C)
LT1U82A	Red(Super-luminosity)	GaAlAs on GaAlAs	75	30	50	0.40	0.67	4	-25 to +85	-25 to +100	350
LT1T82A	Red(High-luminosity)	GaAlAs on GaAs	66	30	50	0.40	0.67	5	-25 to +85	-25 to +100	350
LT1P82A	Red	GaP	23	10	50	0.13	0.67	5	-25 to +85	-25 to +100	350
LT1D82A	Red	GaAsP on GaP	85	30	50	0.40	0.67	5	-25 to +85	-25 to +100	350
LT1S82A	Sunset orange	GaAsP on GaP	85	30	50	0.40	0.67	5	-25 to +85	-25 to +100	350
LT1H82A	Yellow	GaAsP on GaP	50	20	50	0.27	0.67	5	-25 to +85	-25 to +100	350
LT1E82A	Yellow-green	GaP	50	20	50	0.27	0.67	5	-25 to +85	-25 to +100	350
LT1K82A	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

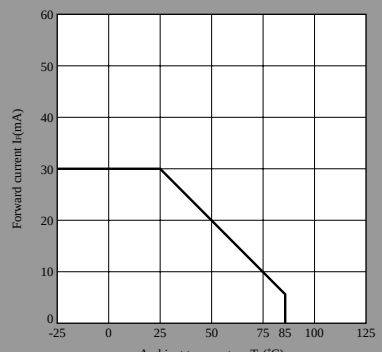
(Ta=25˚C)

Lens type	Model No.	Forward voltage V_F(V) TYP	Forward voltage V_F(V) MAX	Peak emission wavelength λ_P(nm) TYP	Peak emission wavelength I_F (mA)	Luminous intensity I_V(mcd) TYP	Luminous intensity I_F (mA)	Spectrum radiation bandwidth Δλ(nm) TYP	Spectrum radiation bandwidth I_F (mA)	Reverse current I_R(μA) MAX	Reverse current V_R (V)	Terminal capacitance C_t(pF) TYP	Terminal capacitance (MHz)	Page for characteristics diagrams
Colorless transparency	LT1U82A	1.85	2.5	660	20	54.0	20	20	20	100	3	25	1	→
	LT1T82A	1.75	2.2	660	20	13.1	20	20	20	10	4	30	1	→
	LT1P82A	1.9	2.3	695	5	1.6	5	100	5	10	4	55	1	→
	LT1D82A	2.0	2.8	635	20	14.4	20	35	20	10	4	20	1	→
	LT1S82A	2.0	2.8	610	20	11.7	20	35	20	10	4	15	1	→
	LT1H82A	1.9	2.5	585	10	5.6	10	30	10	10	4	35	1	→
	LT1E82A	1.95	2.5	565	10	7.8	10	30	10	10	4	35	1	→
	LT1K82A	1.95	2.5	555	10	2.7	10	25	10	10	4	40	1	→

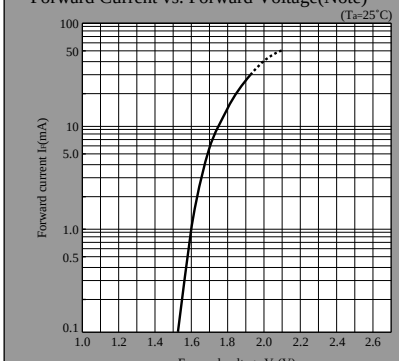
LED Lamp Characteristics Diagrams

UR series

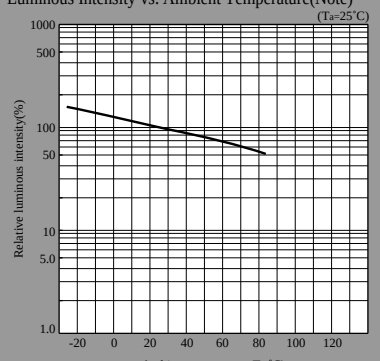
Forward Current Derating Curve



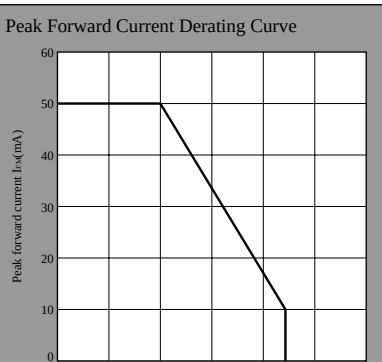
Forward Current vs. Forward Voltage(Note)



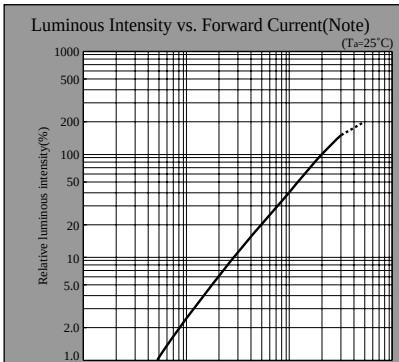
Luminous Intensity vs. Ambient Temperature(Note)



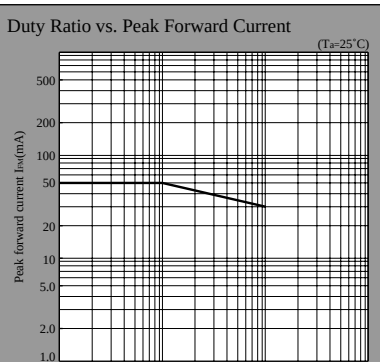
Peak Forward Current Derating Curve



Luminous Intensity vs. Forward Current(Note)

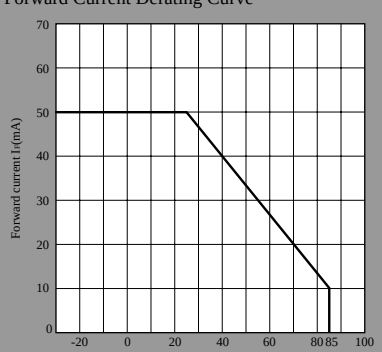


Duty Ratio vs. Peak Forward Current

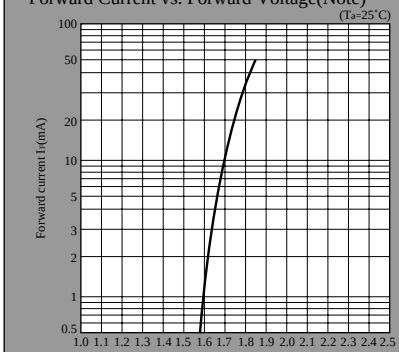


TR series

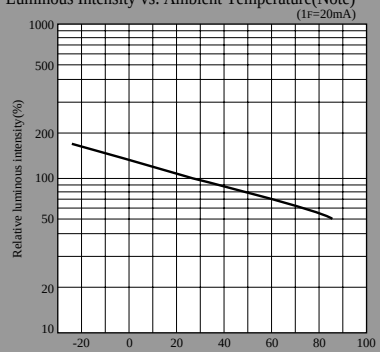
Forward Current Derating Curve



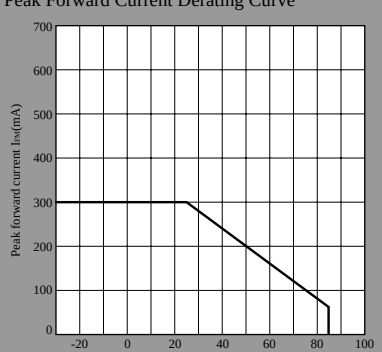
Forward Current vs. Forward Voltage(Note)



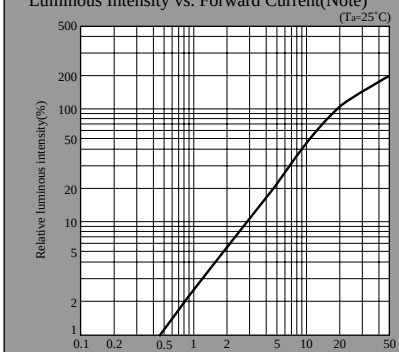
Luminous Intensity vs. Ambient Temperature(Note)



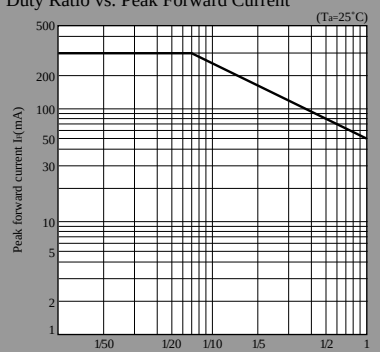
Peak Forward Current Derating Curve



Luminous Intensity vs. Forward Current(Note)



Duty Ratio vs. Peak Forward Current

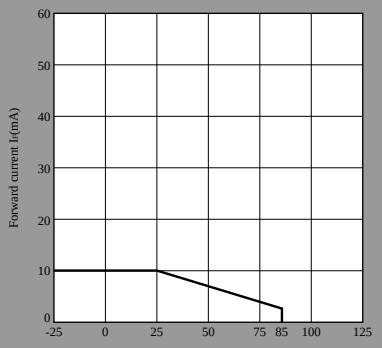


Note)Characteristics shown in diagrams are typical values. (not assurance value)

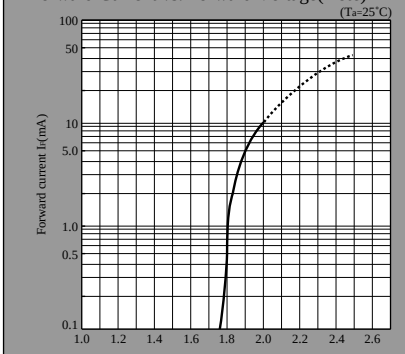
LED Lamp Characteristics Diagrams

PR series

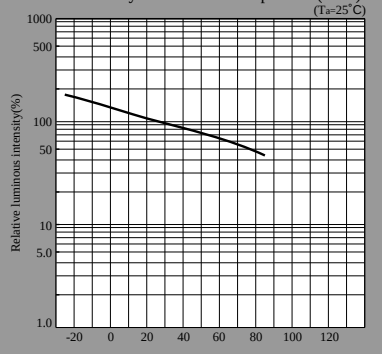
Forward Current Derating Curve



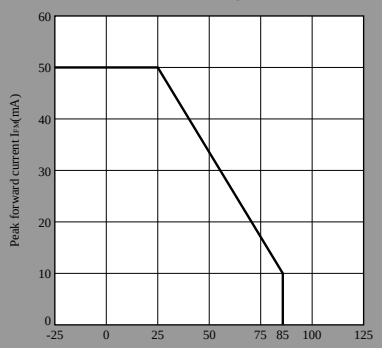
Forward Current vs. Forward Voltage(Note)



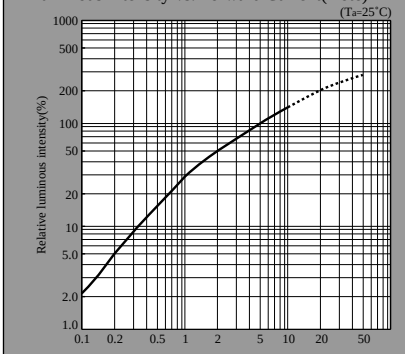
Luminous Intensity vs. Ambient Temperature(Note)



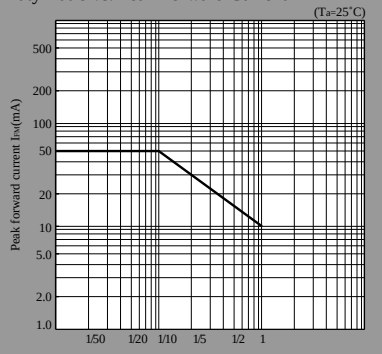
Peak Forward Current Derating Curve



Luminous Intensity vs. Forward Current(Note)

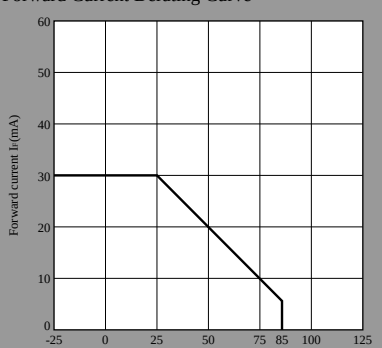


Duty Ratio vs. Peak Forward Current

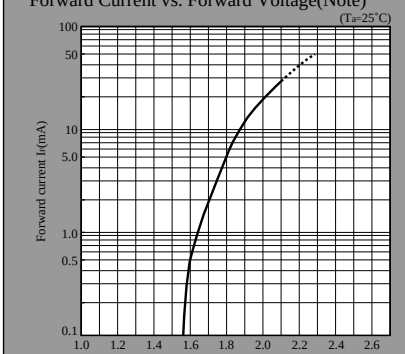


HD series

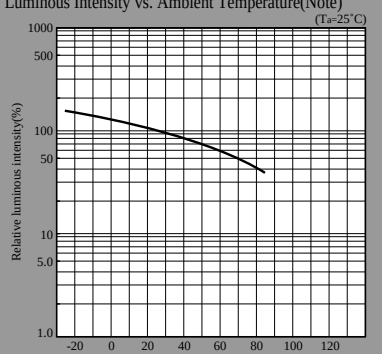
Forward Current Derating Curve



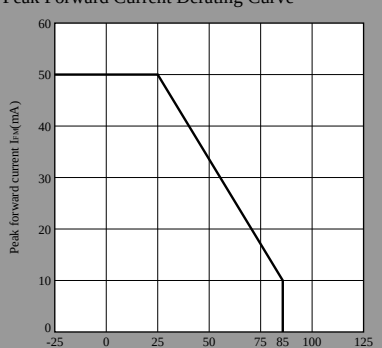
Forward Current vs. Forward Voltage(Note)



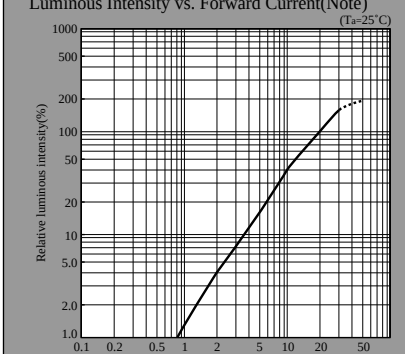
Luminous Intensity vs. Ambient Temperature(Note)



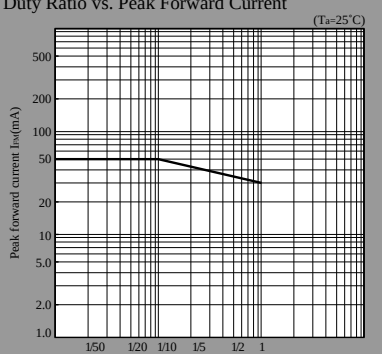
Peak Forward Current Derating Curve



Luminous Intensity vs. Forward Current(Note)



Duty Ratio vs. Peak Forward Current

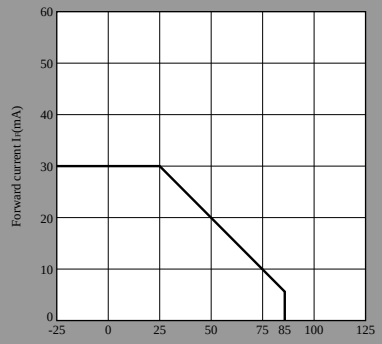


Note)Characteristics shown in diagrams are typical values. (not assurance value)

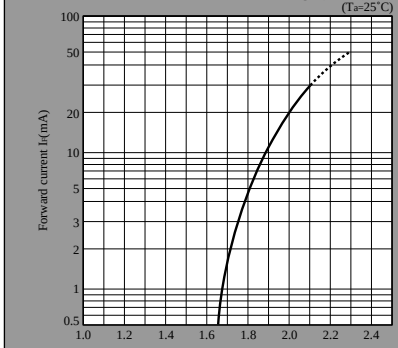
LED Lamp Characteristics Diagrams

HS series

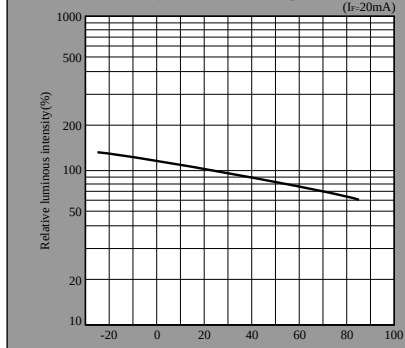
Forward Current Derating Curve



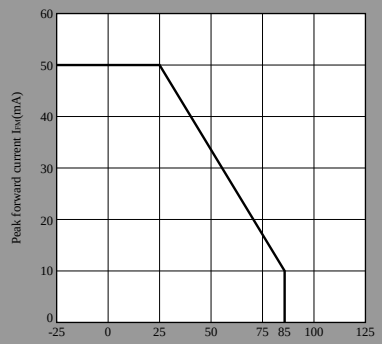
Forward Current vs. Forward Voltage(Note)



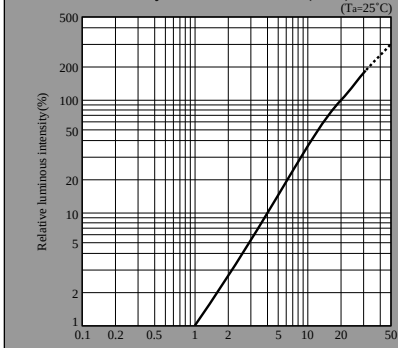
Luminous Intensity vs. Ambient Temperature(Note)



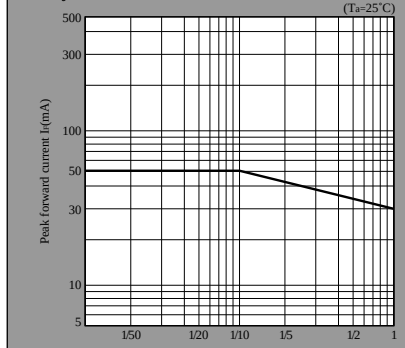
Peak Forward Current Derating Curve



Luminous Intensity vs. Forward Current(Note)

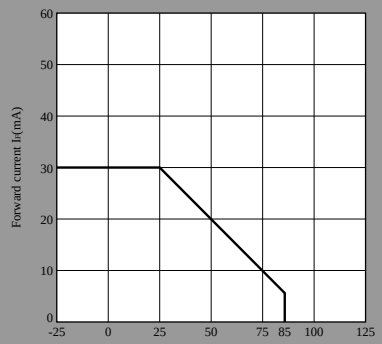


Duty Ratio vs. Peak Forward Current

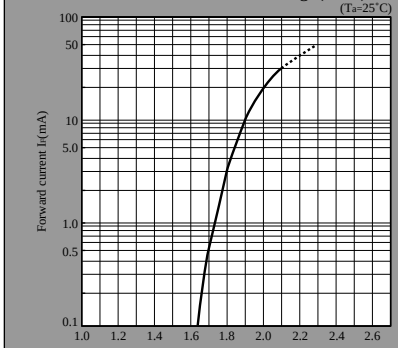


HY series

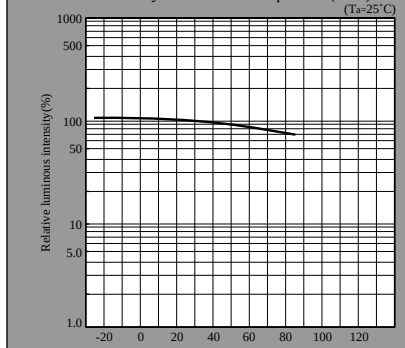
Forward Current Derating Curve



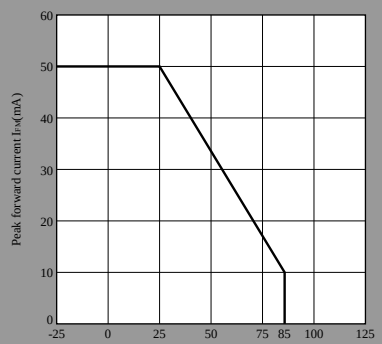
Forward Current vs. Forward Voltage(Note)



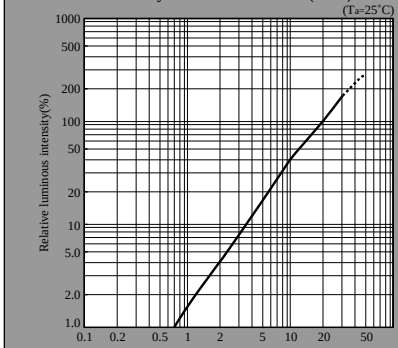
Luminous Intensity vs. Ambient Temperature(Note)



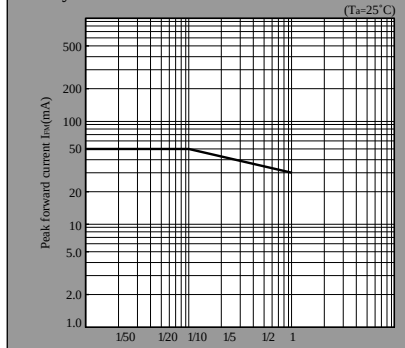
Peak Forward Current Derating Curve



Luminous Intensity vs. Forward Current(Note)



Duty Ratio vs. Peak Forward Current

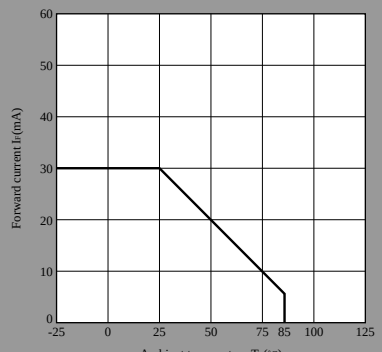


Note)Characteristics shown in diagrams are typical values. (not assurance value)

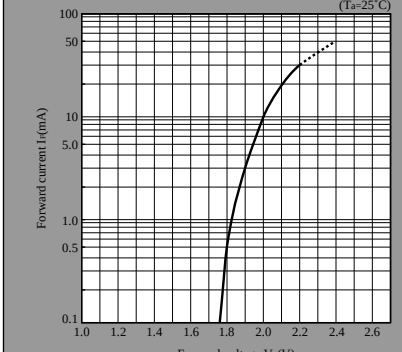
LED Lamp Characteristics Diagrams

EG series

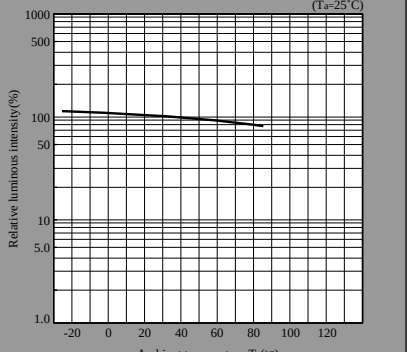
Forward Current Derating Curve



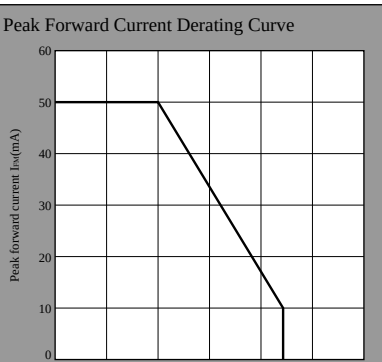
Forward Current vs. Forward Voltage(Note)



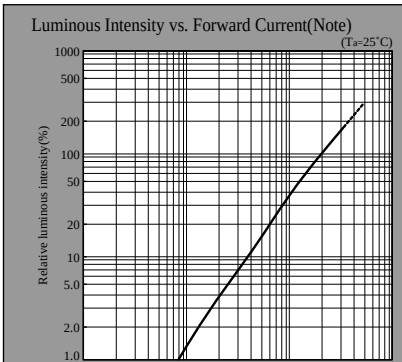
Luminous Intensity vs. Ambient Temperature(Note)



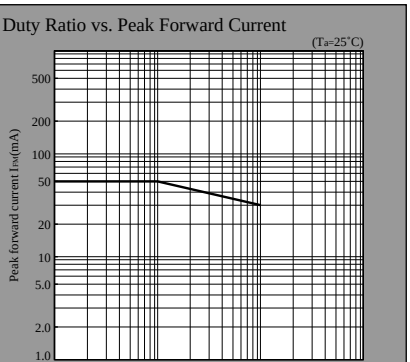
Peak Forward Current Derating Curve



Luminous Intensity vs. Forward Current(Note)

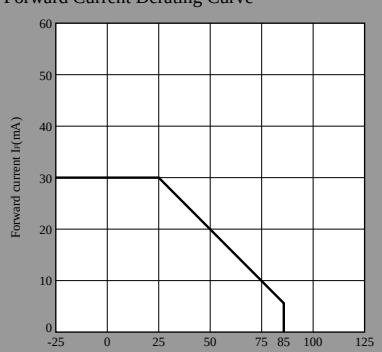


Duty Ratio vs. Peak Forward Current

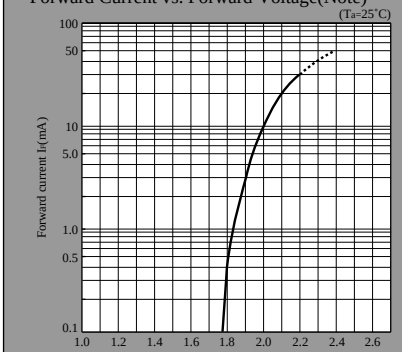


KG series

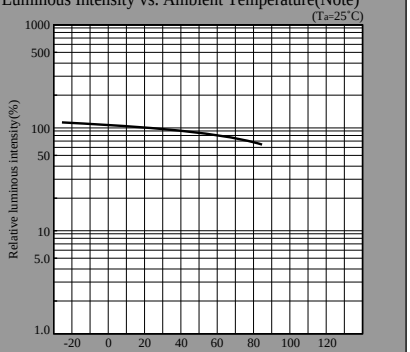
Forward Current Derating Curve



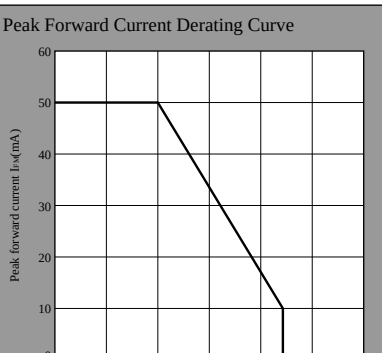
Forward Current vs. Forward Voltage(Note)



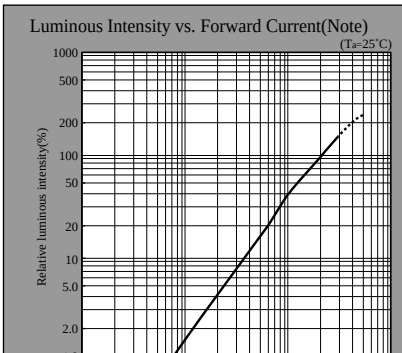
Luminous Intensity vs. Ambient Temperature(Note)



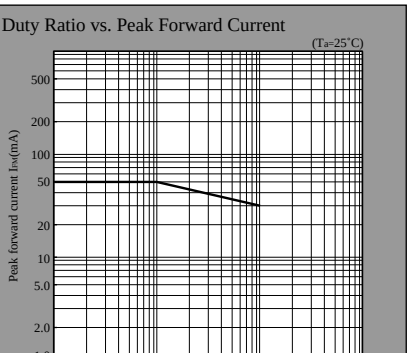
Peak Forward Current Derating Curve



Luminous Intensity vs. Forward Current(Note)



Duty Ratio vs. Peak Forward Current



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