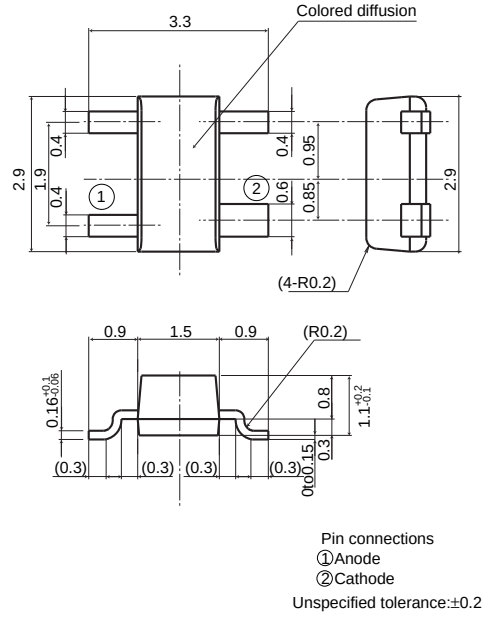
LT1❑51A series

3.3×2.9mm, 1.1mm Thickness, Colored Diffusion Chip LED Devices

■ Outline Dimensions

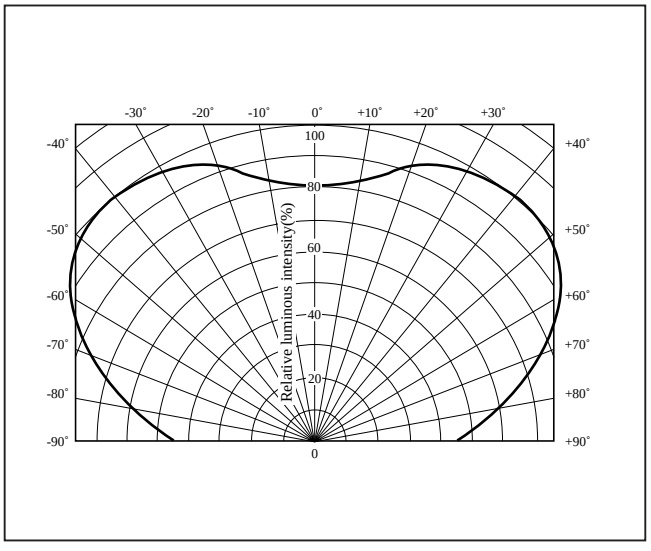
(Unit : mm)



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 IF (mA)	Peak forward current IFM (mA)	Derating factor (mA/˚C) DC	Derating factor (mA/˚C) Pulse	Reverse voltage VR (V)	Operating temperature Topr (˚C)	Storage temperature Tstg (˚C)	Soldering temperature Tsol*3 (˚C)
LT1T51A	Red(High-luminosity)	GaAlAs on GaAs	66	30	50	0.40	0.67	5	-25 to +85	-25 to +100	350
LT1P51A	Red	GaP	23	10	50	0.13	0.67	5	-25 to +85	-25 to +100	350
LT1D51A	Red	GaAsP on GaP	85	30	50	0.40	0.67	5	-25 to +85	-25 to +100	350
LT1S51A	Sunset orange	GaAsP on GaP	85	30	50	0.40	0.67	5	-25 to +85	-25 to +100	350
LT1H51A	Yellow	GaAsP on GaP	50	20	50	0.27	0.67	5	-25 to +85	-25 to +100	350
LT1E51A	Yellow-green	GaP	50	20	50	0.27	0.67	5	-25 to +85	-25 to +100	350
LT1K51A	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

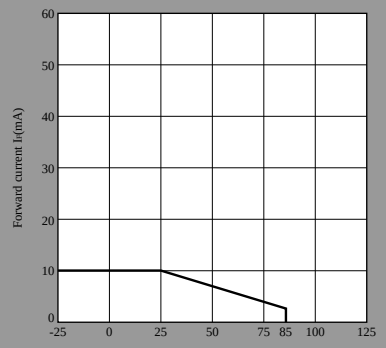
(Ta=25˚C)

Lens type	Model No.	Forward voltage VF(V) TYP	Forward voltage VF(V) MAX	Peak emission wavelength λp(nm) TYP	IF (mA)	Luminous intensity Iv(mcd) TYP	IF (mA)	Spectrum radiation bandwidth Δλ(nm) TYP	IF (mA)	Reverse current IR(μA) MAX	VR (V)	Terminal capacitance Ct(pF) TYP	(MHz)	Page for characteristics diagrams
Colored diffusion	LT1T51A	1.75	2.2	660	20	9.0	20	20	20	10	4	30	1	→
	LT1P51A	1.9	2.3	695	5	1.1	5	100	5	10	4	55	1	→
	LT1D51A	2.0	2.8	635	20	8.4	20	35	20	10	4	20	1	→
	LT1S51A	2.0	2.8	610	20	6.8	20	35	20	10	4	15	1	→
	LT1H51A	1.9	2.5	585	10	3.3	10	30	10	10	4	35	1	→
	LT1E51A	1.95	2.5	565	10	3.6	10	30	10	10	4	35	1	→
	LT1K51A	1.95	2.5	555	10	1.7	10	25	10	10	4	40	1	→

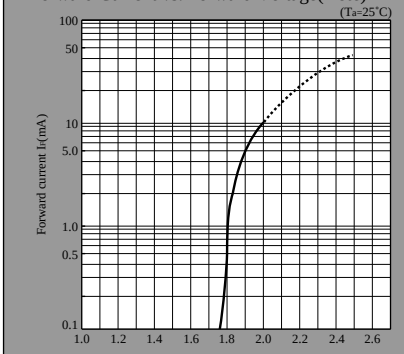
LED Lamp Characteristics Diagrams

PR series

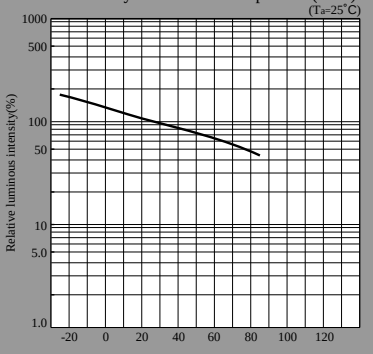
Forward Current Derating Curve



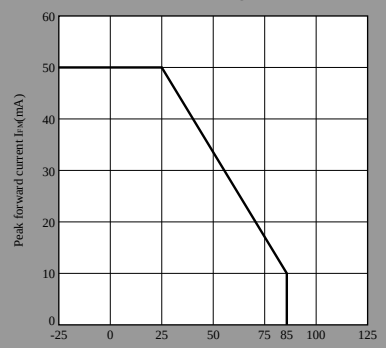
Forward Current vs. Forward Voltage(Note)



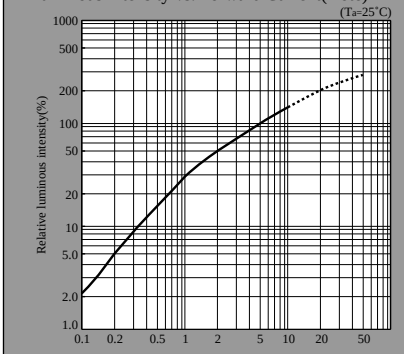
Luminous Intensity vs. Ambient Temperature(Note)



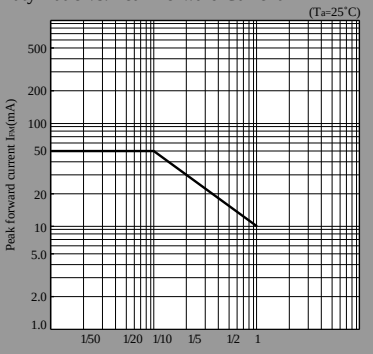
Peak Forward Current Derating Curve



Luminous Intensity vs. Forward Current(Note)

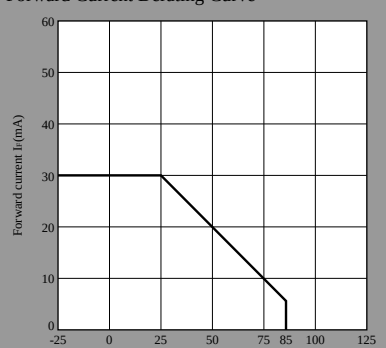


Duty Ratio vs. Peak Forward Current

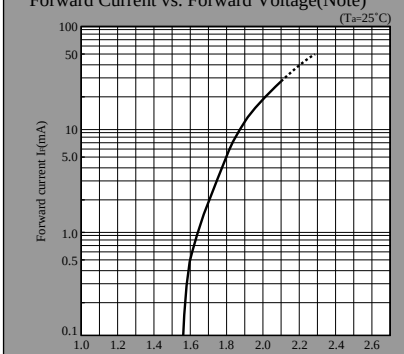


HD series

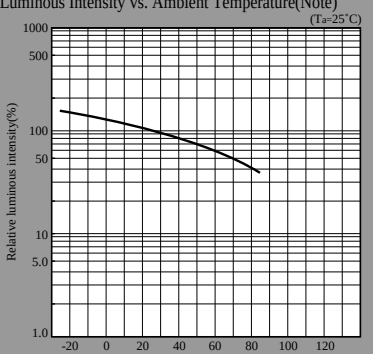
Forward Current Derating Curve



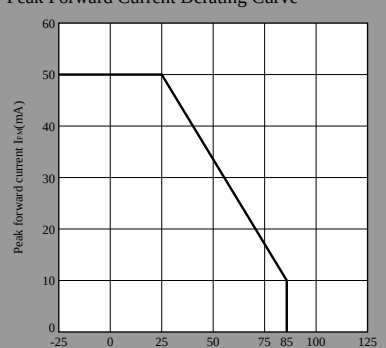
Forward Current vs. Forward Voltage(Note)



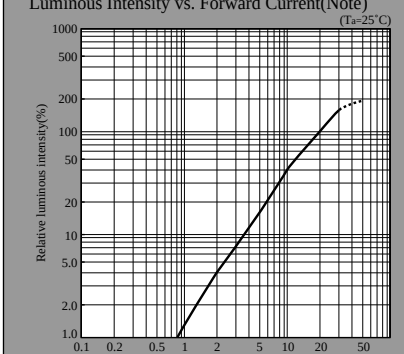
Luminous Intensity vs. Ambient Temperature(Note)



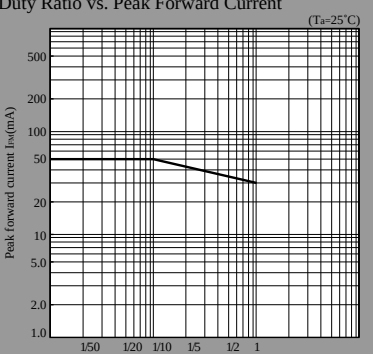
Peak Forward Current Derating Curve



Luminous Intensity vs. Forward Current(Note)



Duty Ratio vs. Peak Forward Current

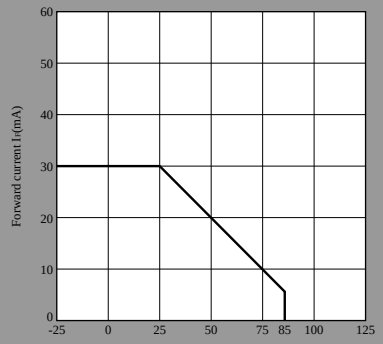


Note)Characteristics shown in diagrams are typical values. (not assurance value)

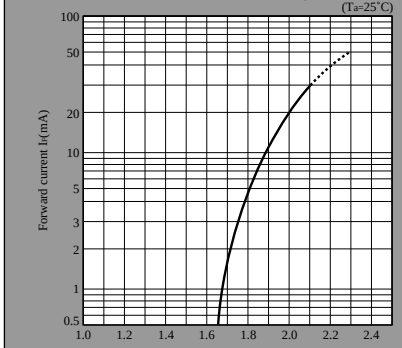
LED Lamp Characteristics Diagrams

HS series

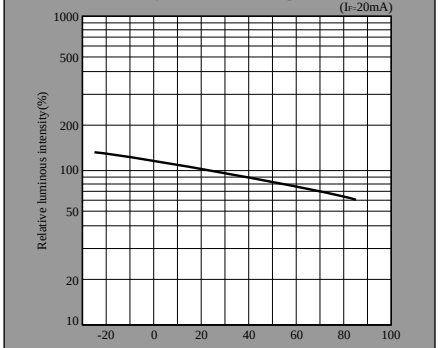
Forward Current Derating Curve



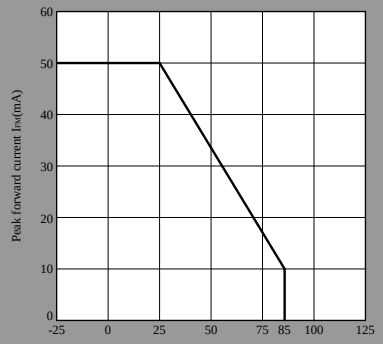
Forward Current vs. Forward Voltage(Note)



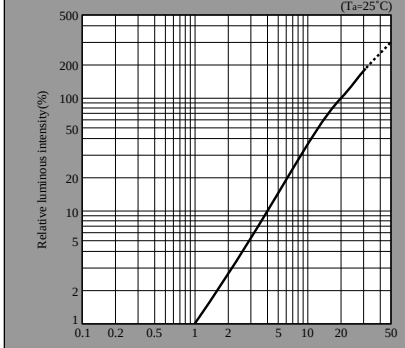
Luminous Intensity vs. Ambient Temperature(Note)



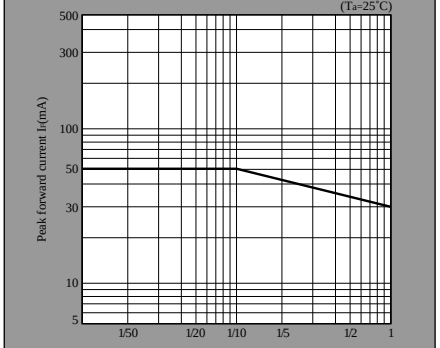
Peak Forward Current Derating Curve



Luminous Intensity vs. Forward Current(Note)

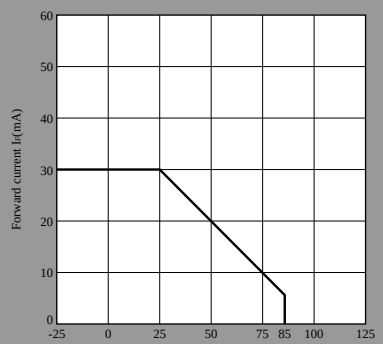


Duty Ratio vs. Peak Forward Current

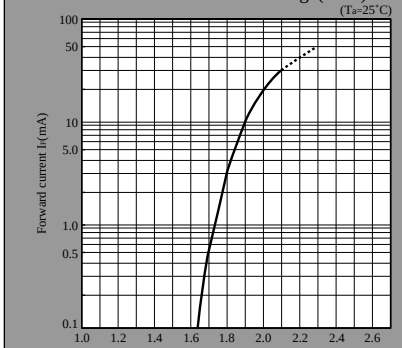


HY series

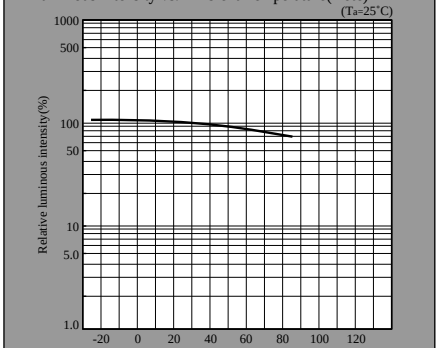
Forward Current Derating Curve



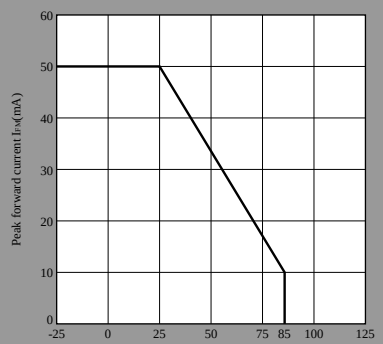
Forward Current vs. Forward Voltage(Note)



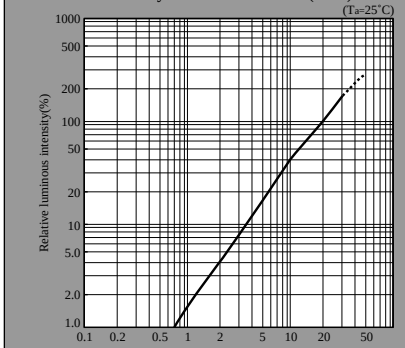
Luminous Intensity vs. Ambient Temperature(Note)



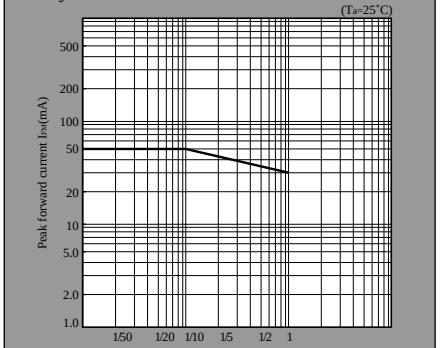
Peak Forward Current Derating Curve



Luminous Intensity vs. Forward Current(Note)



Duty Ratio vs. Peak Forward Current

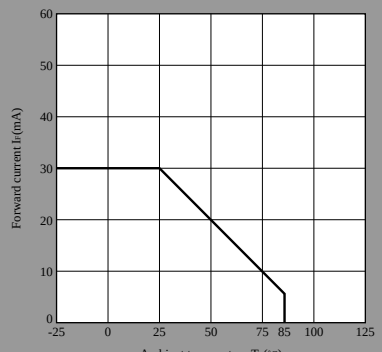


Note)Characteristics shown in diagrams are typical values. (not assurance value)

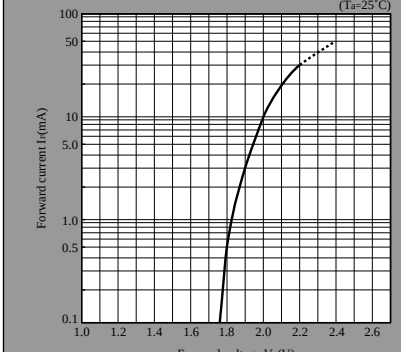
LED Lamp Characteristics Diagrams

EG series

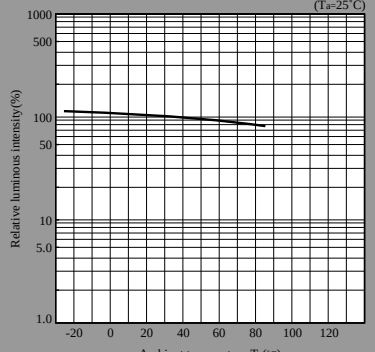
Forward Current Derating Curve



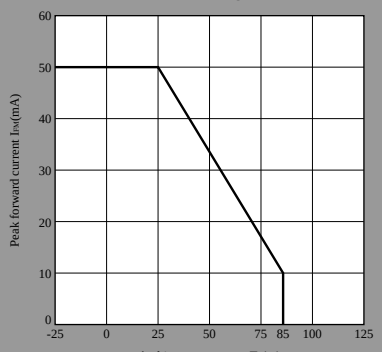
Forward Current vs. Forward Voltage(Note)



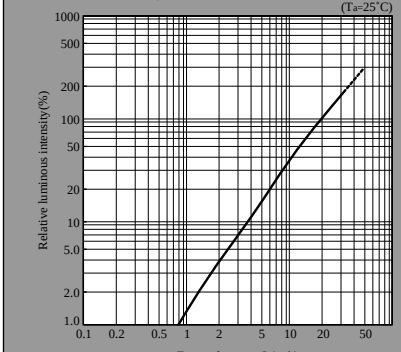
Luminous Intensity vs. Ambient Temperature(Note)



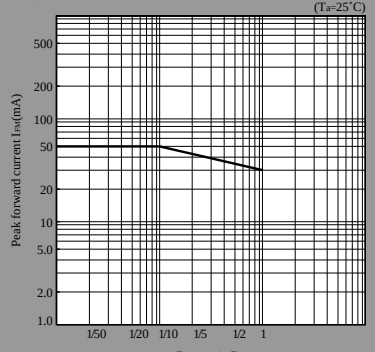
Peak Forward Current Derating Curve



Luminous Intensity vs. Forward Current(Note)

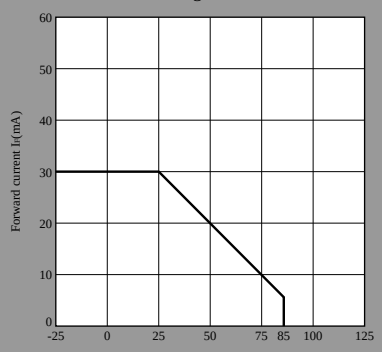


Duty Ratio vs. Peak Forward Current

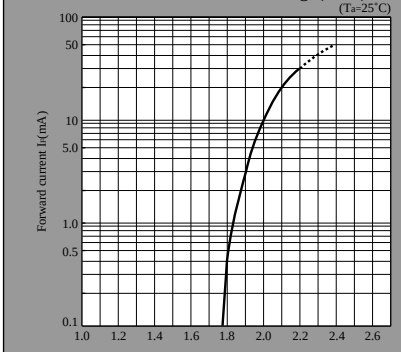


KG series

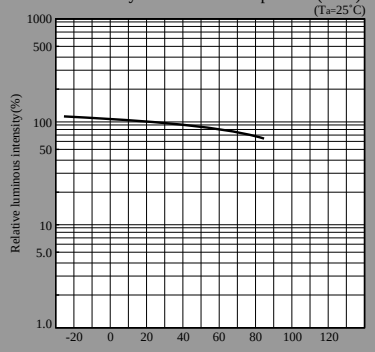
Forward Current Derating Curve



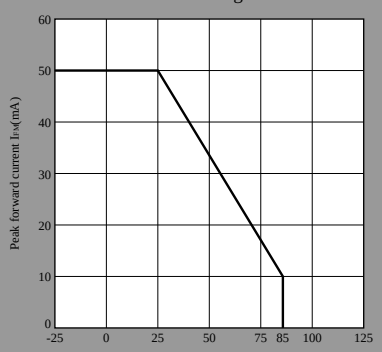
Forward Current vs. Forward Voltage(Note)



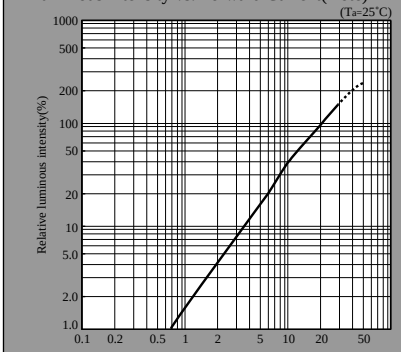
Luminous Intensity vs. Ambient Temperature(Note)



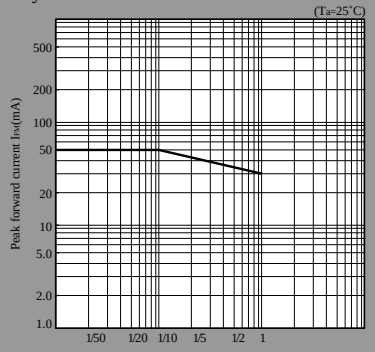
Peak Forward Current Derating Curve



Luminous Intensity vs. Forward Current(Note)



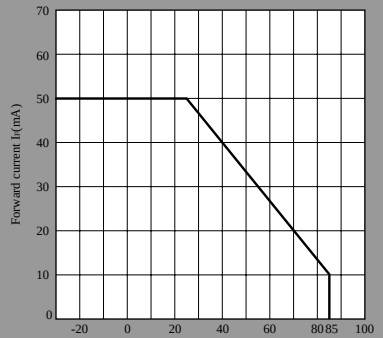
Duty Ratio vs. Peak Forward Current



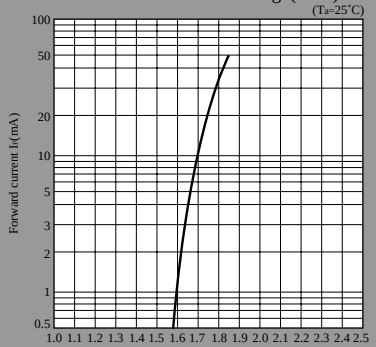
Note)Characteristics shown in diagrams are typical values. (not assurance value)

TR series

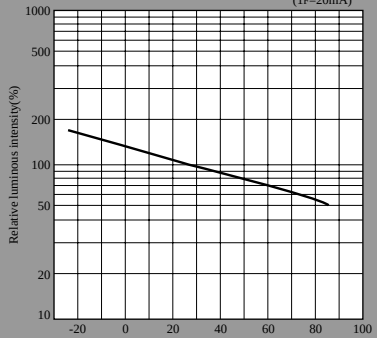
Forward Current Derating Curve



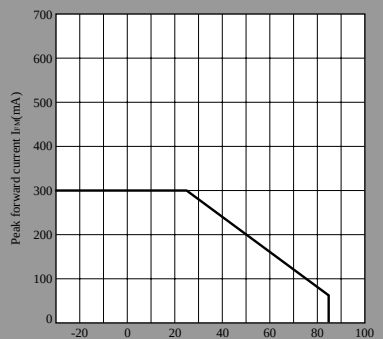
Forward Current vs. Forward Voltage(Note)



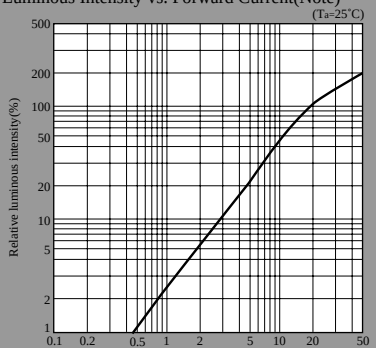
Luminous Intensity vs. Ambient Temperature(Note)



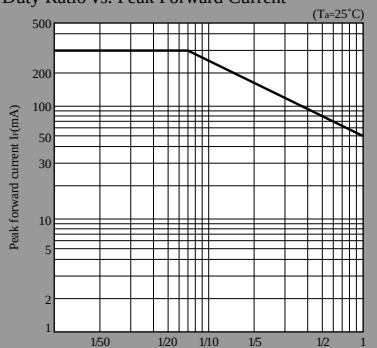
Peak Forward Current Derating Curve



Luminous Intensity vs. Forward Current(Note)



Duty Ratio vs. Peak Forward Current



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