



■ SUPER BRIGHT LED

# 5351K Series



2 x 5mm Rectangular Type

## ■ Absolute Maximum Ratings

T<sub>a</sub> = 25°C

		Red			Orange		Yellow		Green		Pure Green	Unit
		BR	PR	VR	AA		AY	PY	PG	BG		
Power Dissipation	P <sub>b</sub>	100	75	75	125		125	125	125	125	125	mW
Forward Current	I <sub>F</sub>	50	30	30	50		50	50	50	50	50	mA
Peak Forward Current	I <sub>FM</sub>	300	100	100	100		100	100	100	100	100	mA
Reverse Voltage	V <sub>R</sub>	4	4	4	4		4	4	4	4	4	V
Operating Temp.	T <sub>opr</sub>	-30~+85	-30~+85	-30~+85	-30~+85		-30~+85	-30~+85	-30~+85	-30~+85	-30~+85	°C
Storage Temp.	T <sub>stg</sub>	-30~+100	-30~+100	-30~+100	-30~+100		-30~+100	-30~+100	-30~+100	-30~+100	-30~+100	°C
Derating *	ΔI <sub>F</sub>	0.67	0.33	0.33	0.67		0.67	0.67	0.67	0.67	0.67	mA/°C

\* The current derating for operation applies when temperature is above 25°C.

• I<sub>FM</sub> Condition : t<sub>w</sub> ≤ 1msec, Duty ≤ 1/20

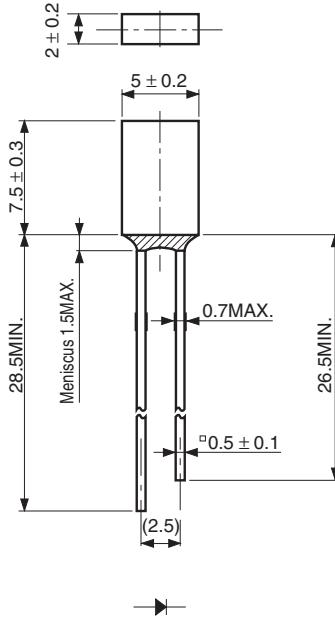
## ■ Electro-Optical Characteristics

T<sub>a</sub> = 25°C

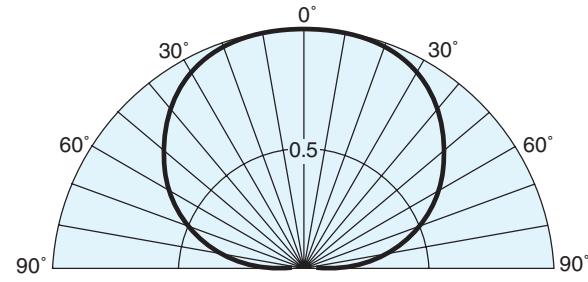
Part No.	Chip		Lens		Luminous Intensity			Wavelength			Forward Voltage			Reverse Current	Capacitance		
	Material	Emitted Color			MIN	TYP	I <sub>F</sub>	λ <sub>p</sub>	Δλ	I <sub>F</sub>	TYP	MAX	I <sub>F</sub>	MAX			
								TYP	TYP	I <sub>F</sub>				V <sub>R</sub>			
BR5351K	GaAlAs	Red	Red		1.5	3	20	660	30	20	1.7	2.0	20	100	4 50		
PR5351K	GaP				0.3	0.5	10	700	100	10	2.1	2.5	10	100	4 70		
VR5351K	GaAsP				1.2	2.4	20	630	30	20	2.0	2.5	20	100	4 35		
AA5351K	GaAsP	Orange	Orange	Surface	1.2	2.4	20	605	30	20	2.2	2.5	20	100	4 50		
AY5351K	GaAsP		Yellow	Diffused	1.2	2.4	20	580	30	20	2.2	2.5	20	100	4 40		
PY5351K	GaP		Yellow		2	4	20	570	30	20	2.1	2.5	20	100	4 40		
PG5351K	GaP	Green		Green	1.5	3	20	560	30	20	2.1	2.5	20	100	4 40		
BG5351K	GaP	Pure Green			0.5	1	20	555	30	20	2.1	2.5	20	100	4 50		
Units					mcd	mcd	mA	nm	nm	mA	V	V	mA	μA	pF		

## ■ Package Dimensions

Unit : mm



## ■ Spatial Distribution

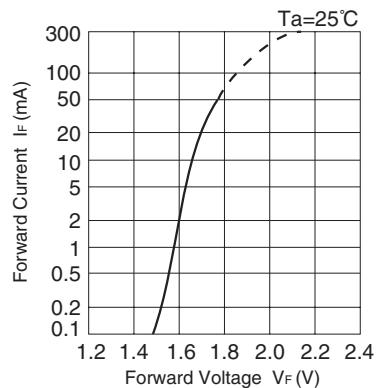


**STANLEY**

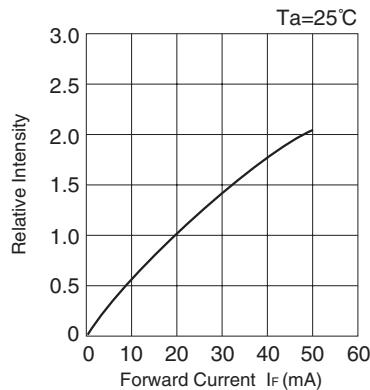
# SUPER BRIGHT LED

## BR5351K

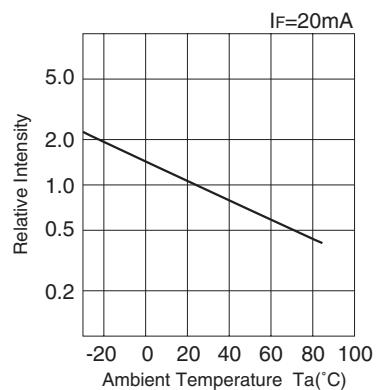
■ Forward Voltage vs. Forward Current



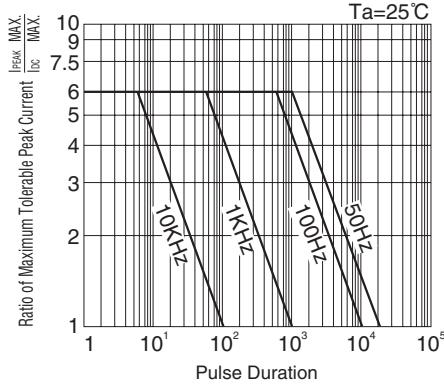
■ Forward Current vs. Relative Intensity



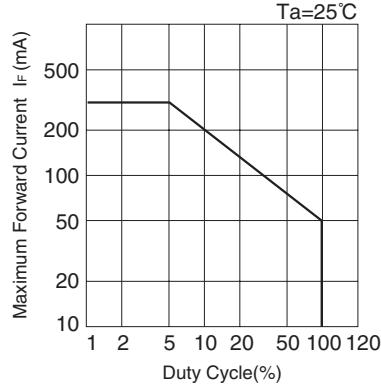
■ Ambient Temperature vs. Relative Intensity



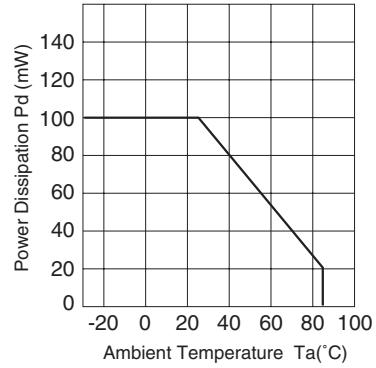
■ Pulse Duration vs. Maximum Tolerable Peak Current



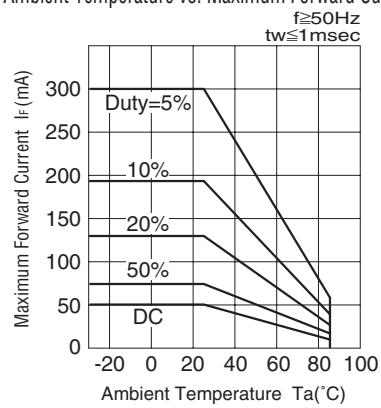
■ Duty Cycle vs. Maximum Forward Current



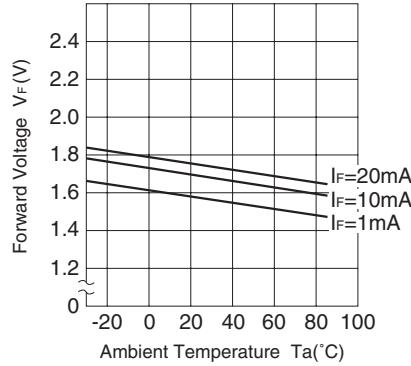
■ Power Dissipation vs. Ambient Temperature



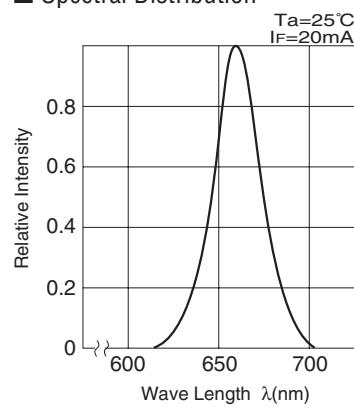
■ Ambient Temperature vs. Maximum Forward Current



■ Forward Voltage vs. Ambient Temperature



■ Spectral Distribution

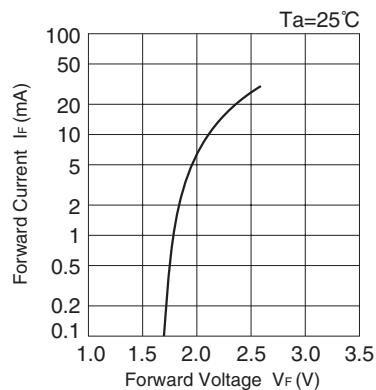


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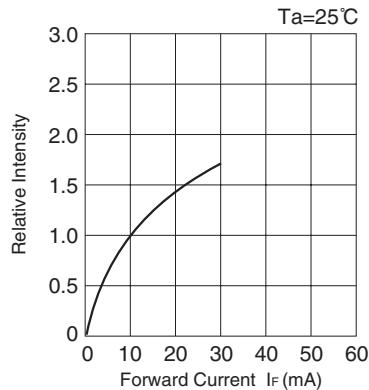
# SUPER BRIGHT LED

## PR5351K

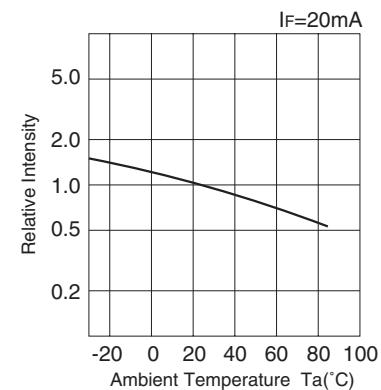
■ Forward Voltage vs. Forward Current



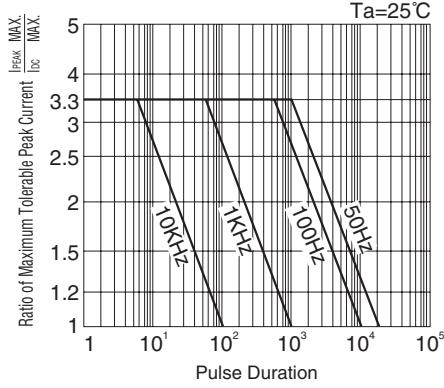
■ Forward Current vs. Relative Intensity



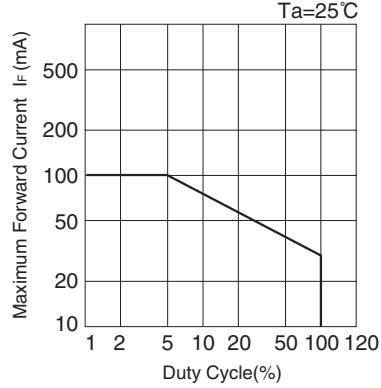
■ Ambient Temperature vs. Relative Intensity



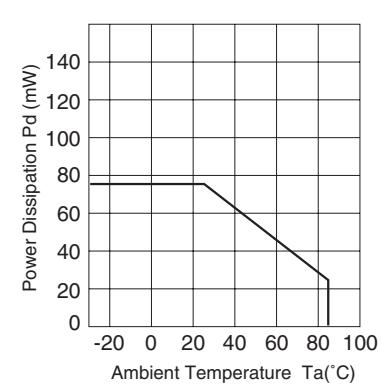
■ Pulse Duration vs. Maximum Tolerable Peak Current



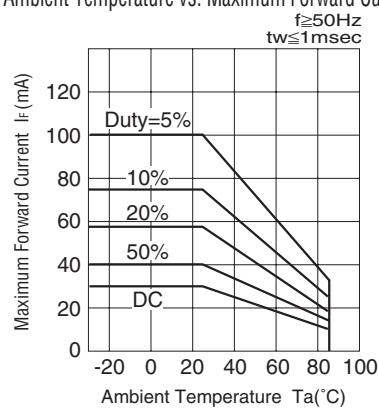
■ Duty Cycle vs. Maximum Forward Current



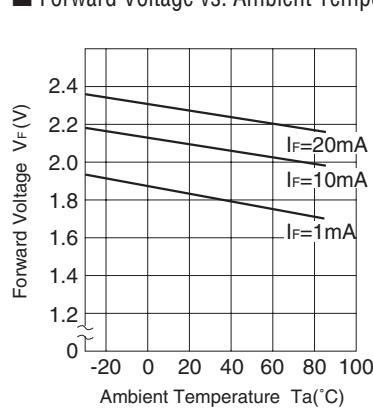
■ Power Dissipation vs. Ambient Temperature



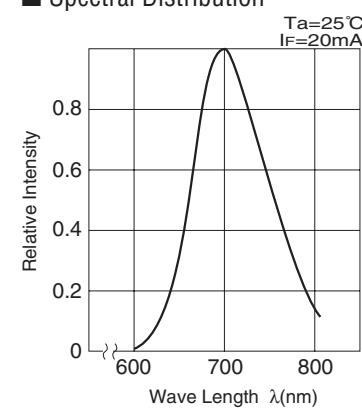
■ Ambient Temperature vs. Maximum Forward Current



■ Forward Voltage vs. Ambient Temperature



■ Spectral Distribution

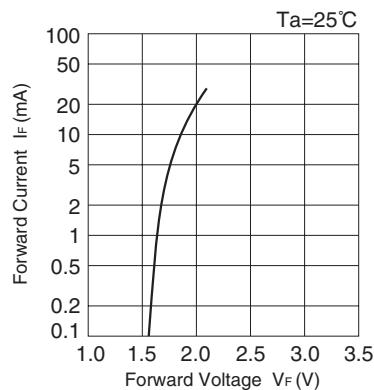


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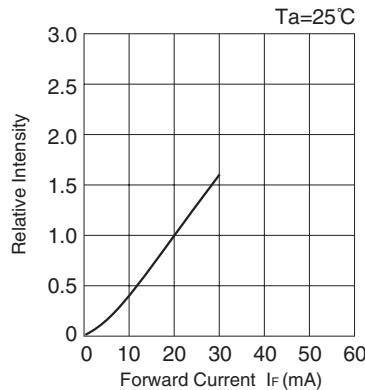
# SUPER BRIGHT LED

## VR5351K

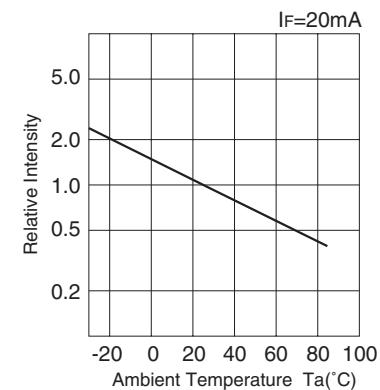
■ Forward Voltage vs. Forward Current



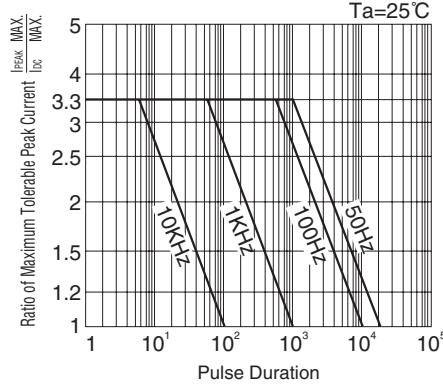
■ Forward Current vs. Relative Intensity



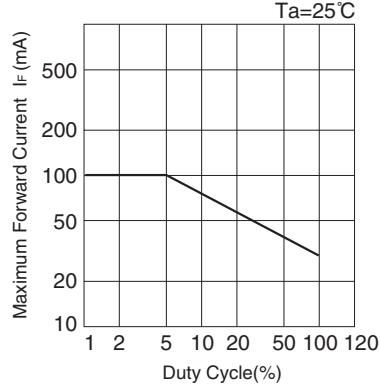
■ Ambient Temperature vs. Relative Intensity



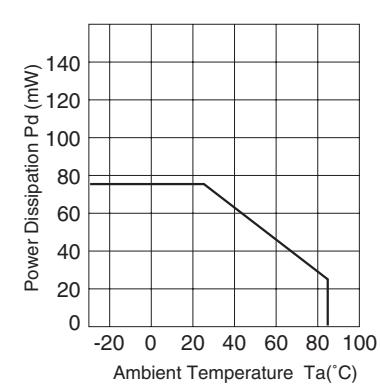
■ Pulse Duration vs. Maximum Tolerable Peak Current



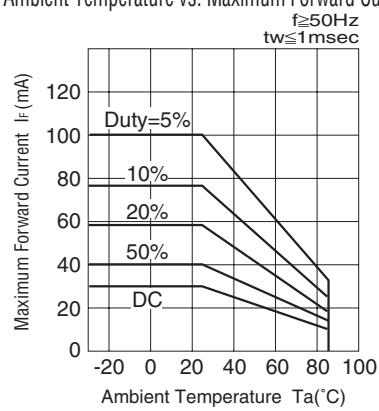
■ Duty Cycle vs. Maximum Forward Current



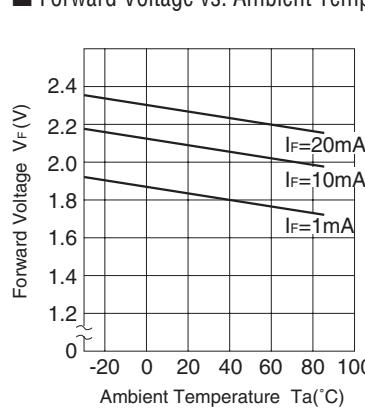
■ Power Dissipation vs. Ambient Temperature



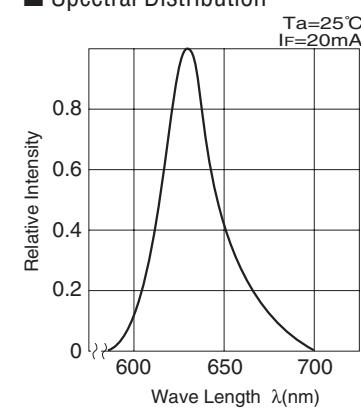
■ Ambient Temperature vs. Maximum Forward Current

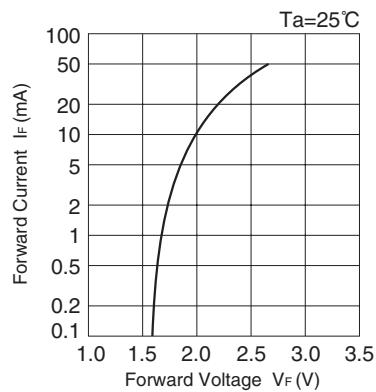
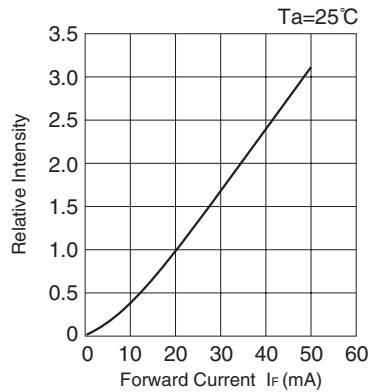
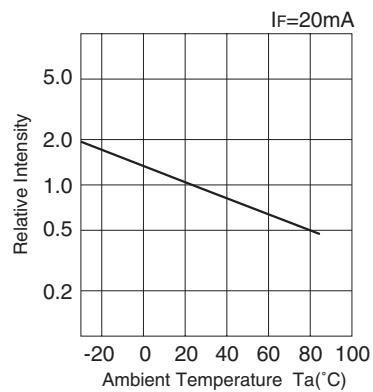
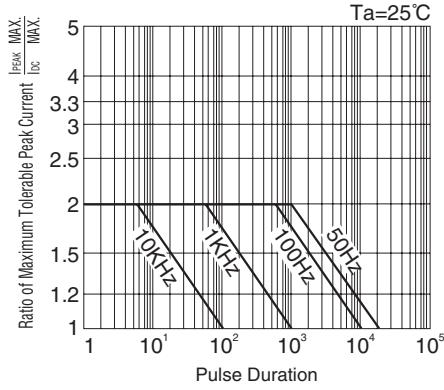
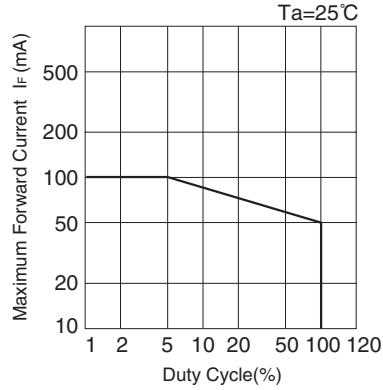
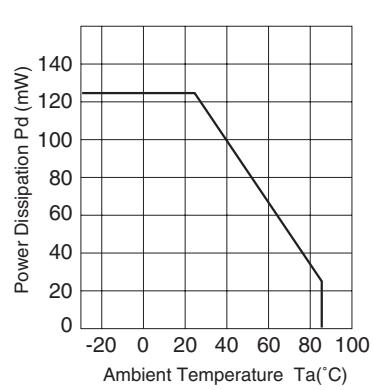
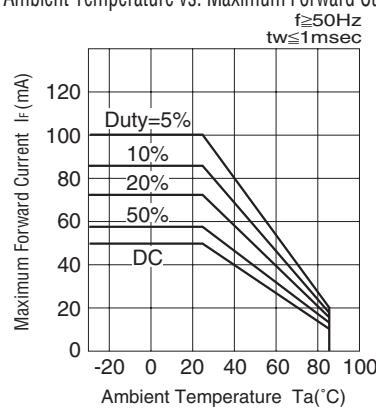
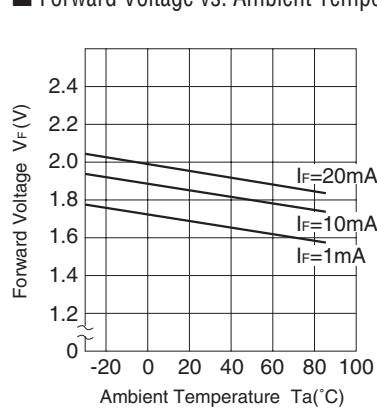
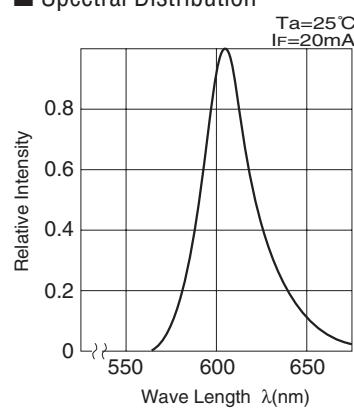


■ Forward Voltage vs. Ambient Temperature



■ Spectral Distribution



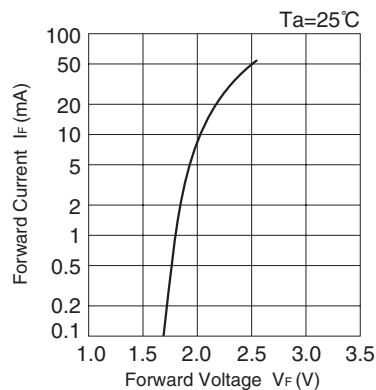
**STANLEY****SUPER BRIGHT LED****AA5351K****■ Forward Voltage vs. Forward Current****■ Forward Current vs. Relative Intensity****■ Ambient Temperature vs. Relative Intensity****■ Pulse Duration vs. Maximum Tolerable Peak Current****■ Duty Cycle vs. Maximum Forward Current****■ Power Dissipation vs. Ambient Temperature****■ Ambient Temperature vs. Maximum Forward Current****■ Forward Voltage vs. Ambient Temperature****■ Spectral Distribution**

**STANLEY**

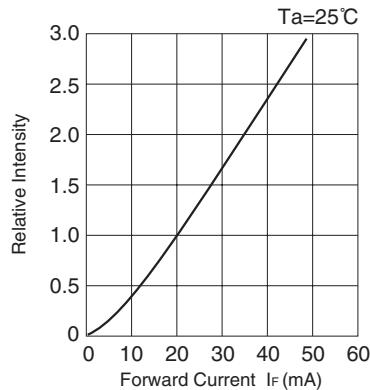
# SUPER BRIGHT LED

## AY5351K

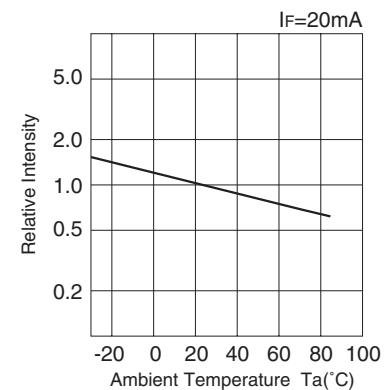
■ Forward Voltage vs. Forward Current



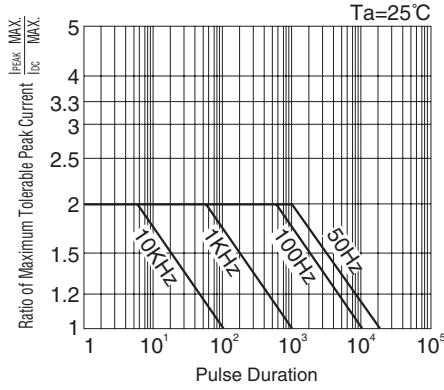
■ Forward Current vs. Relative Intensity



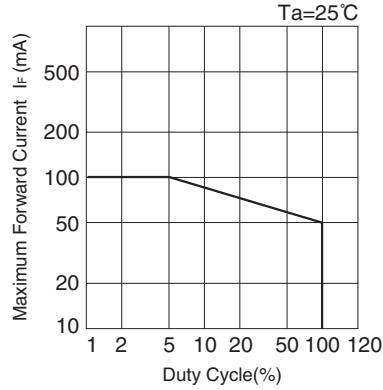
■ Ambient Temperature vs. Relative Intensity



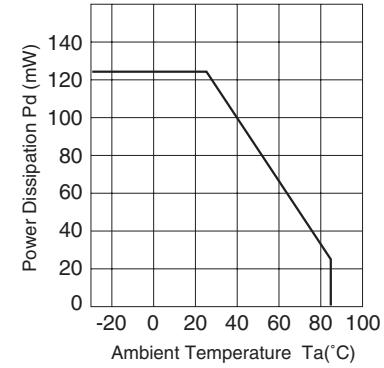
■ Pulse Duration vs. Maximum Tolerable Peak Current



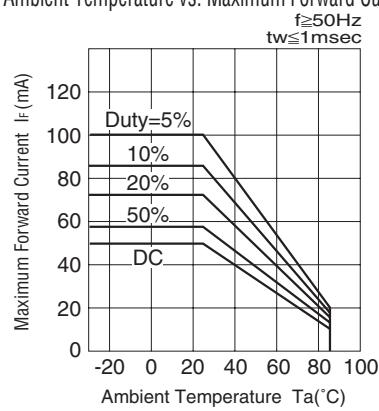
■ Duty Cycle vs. Maximum Forward Current



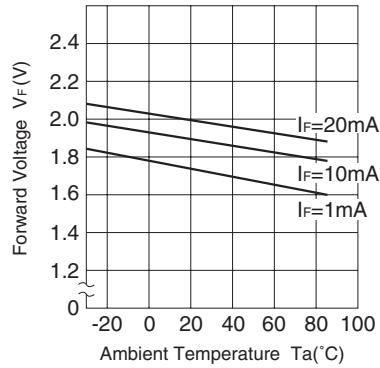
■ Power Dissipation vs. Ambient Temperature



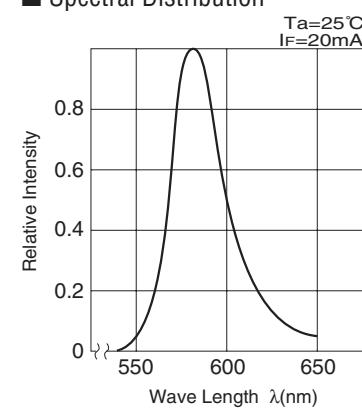
■ Ambient Temperature vs. Maximum Forward Current



■ Forward Voltage vs. Ambient Temperature



■ Spectral Distribution

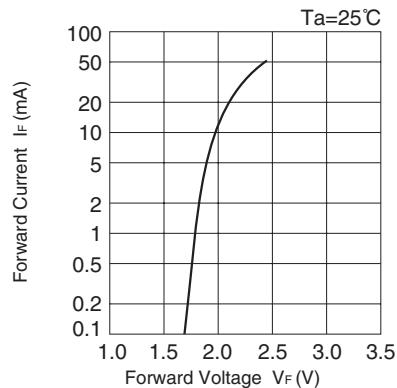


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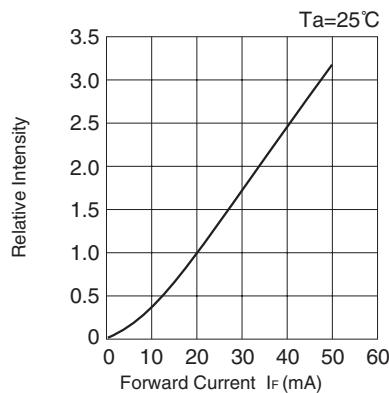
# SUPER BRIGHT LED

## PY5351K

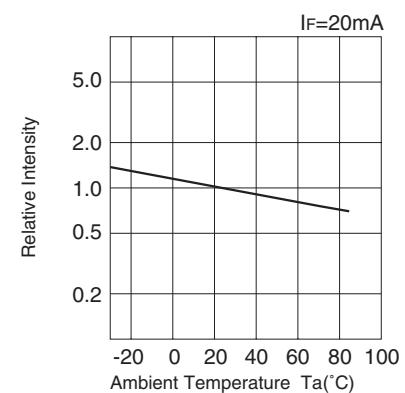
■ Forward Voltage vs. Forward Current



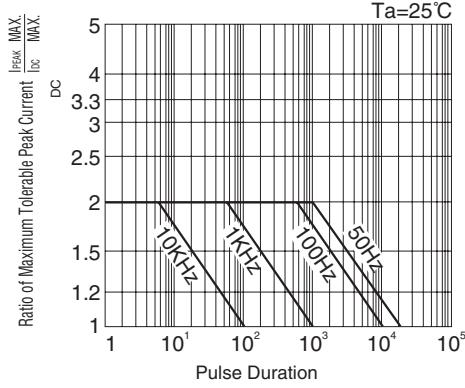
■ Forward Current vs. Relative Intensity



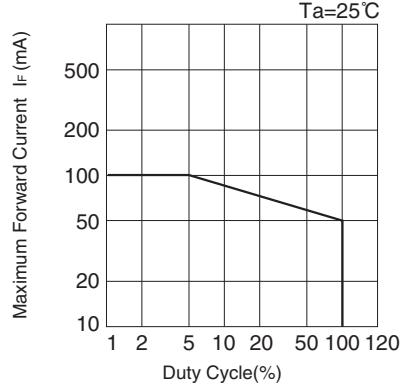
■ Ambient Temperature vs. Relative Intensity



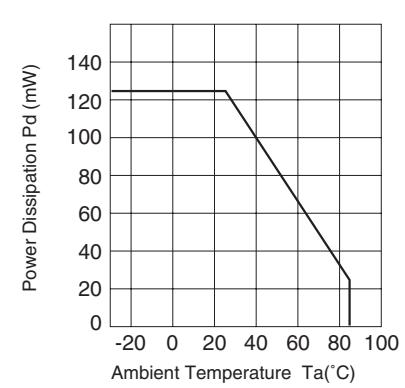
■ Pulse Duration vs. Maximum Tolerable Peak Current



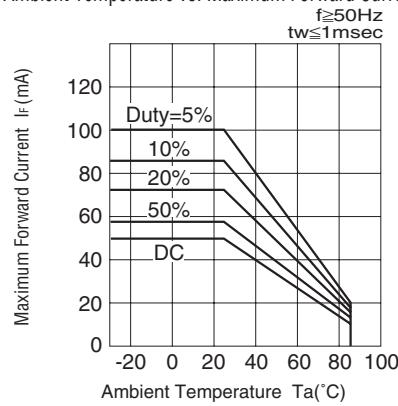
■ Duty Cycle vs. Maximum Forward Current



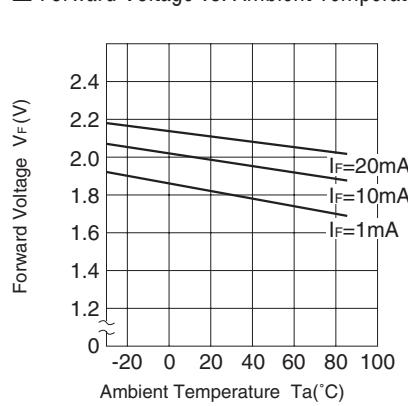
■ Power Dissipation vs. Ambient Temperature



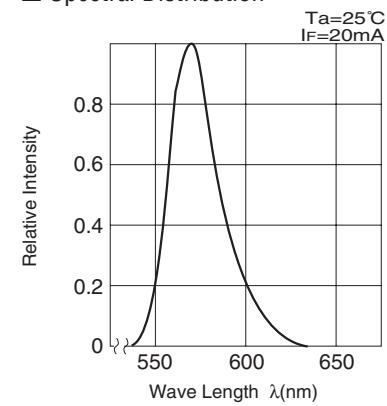
■ Ambient Temperature vs. Maximum Forward Current



■ Forward Voltage vs. Ambient Temperature



■ Spectral Distribution

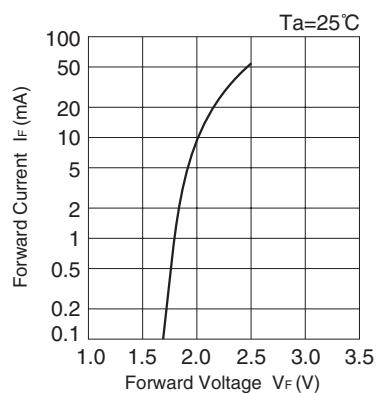


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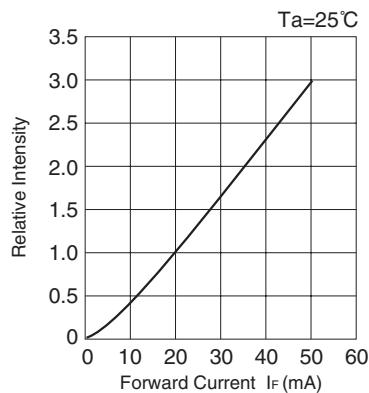
# SUPER BRIGHT LED

## PG5351K

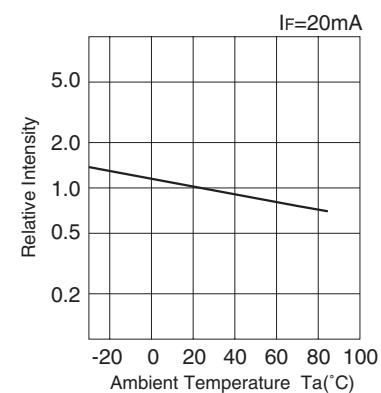
■ Forward Voltage vs. Forward Current



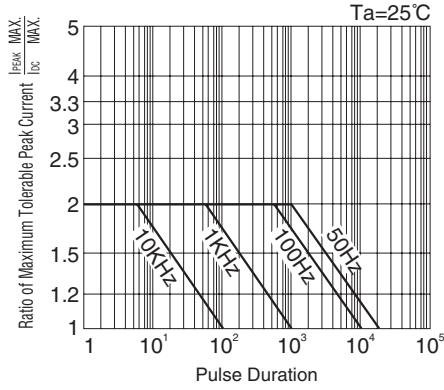
■ Forward Current vs. Relative Intensity



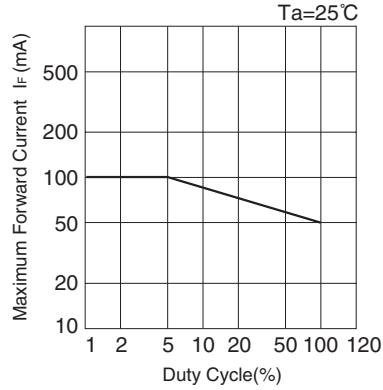
■ Ambient Temperature vs. Relative Intensity



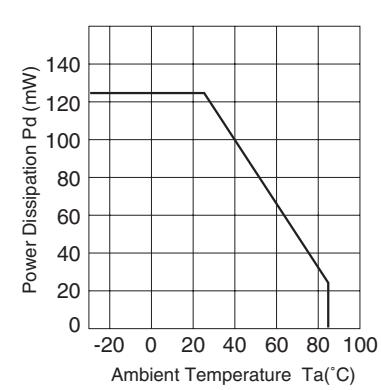
■ Pulse Duration vs. Maximum Tolerable Peak Current



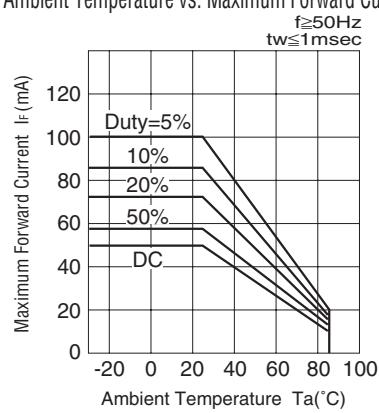
■ Duty Cycle vs. Maximum Forward Current



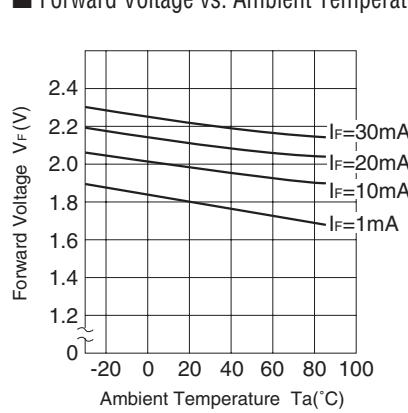
■ Power Dissipation vs. Ambient Temperature



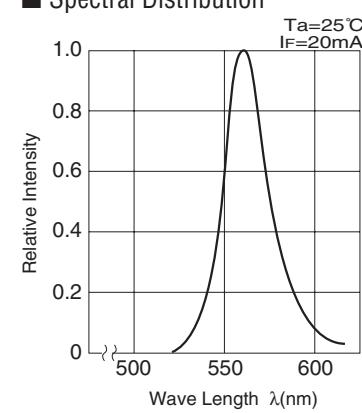
■ Ambient Temperature vs. Maximum Forward Current



■ Forward Voltage vs. Ambient Temperature



■ Spectral Distribution

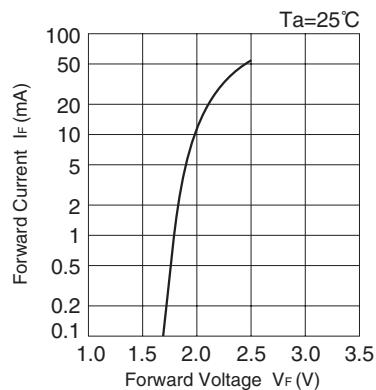


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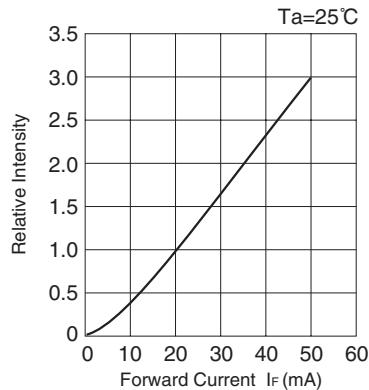
# SUPER BRIGHT LED

## BG5351K

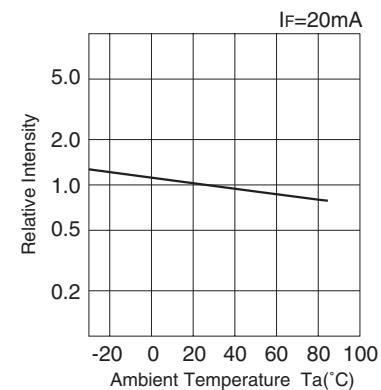
■ Forward Voltage vs. Forward Current



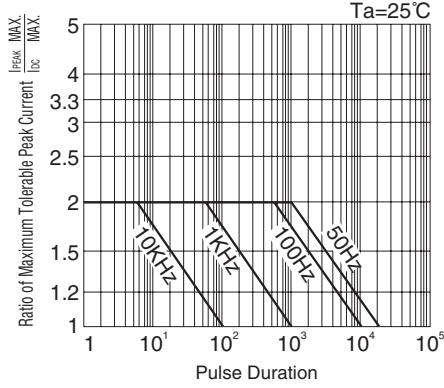
■ Forward Current vs. Relative Intensity



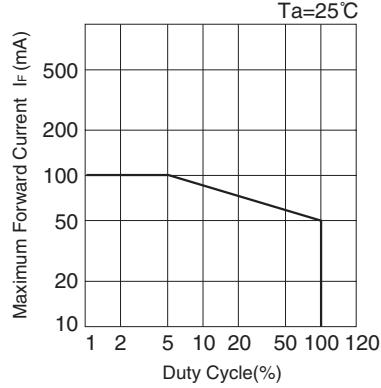
■ Ambient Temperature vs. Relative Intensity



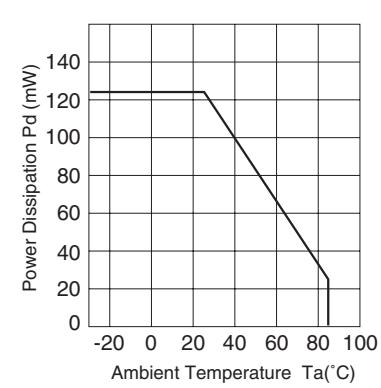
■ Pulse Duration vs. Maximum Tolerable Peak Current



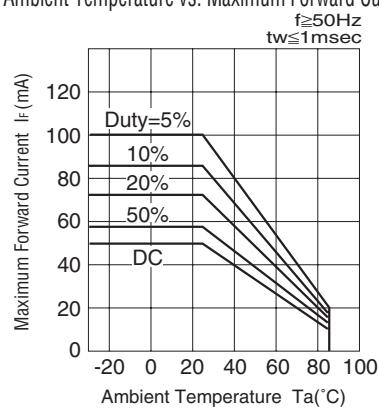
■ Duty Cycle vs. Maximum Forward Current



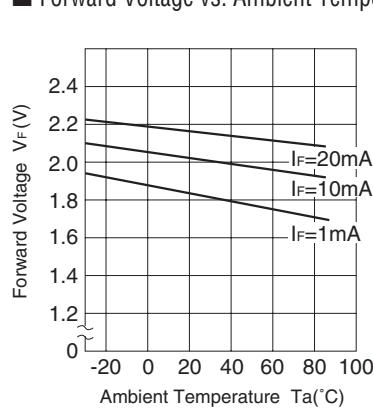
■ Power Dissipation vs. Ambient Temperature



■ Ambient Temperature vs. Maximum Forward Current



■ Forward Voltage vs. Ambient Temperature



■ Spectral Distribution

