



■ Absolute Maximum Ratings

Ta = 25°C

		Blue	Blue Green	Green	Yellow	Orange	Red	Unit
		DB	DC	DG	FY	FA	FR	
Power Dissipation	Pd	100	100	100	125	125	125	mW
Forward Current	IF	25	25	25	50	50	50	mA
Peak Forward Current	IFM	60	60	60	200	200	200	mA
Reverse Voltage	VR	5	5	5	5	5	5	V
Operating Temp.	Topr	-40~+85	-40~+85	-40~+85	-40~+85	-40~+85	-40~+85	°C
Storage Temp.	Tstg	-40~+100	-40~+100	-40~+100	-40~+100	-40~+100	-40~+100	°C
Derating *	ΔIF	0.33	0.33	0.33	0.67	0.67	0.67	mA/°C

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

• IFM Condition : tw ≤ 1ms, Duty ≤ 1/20

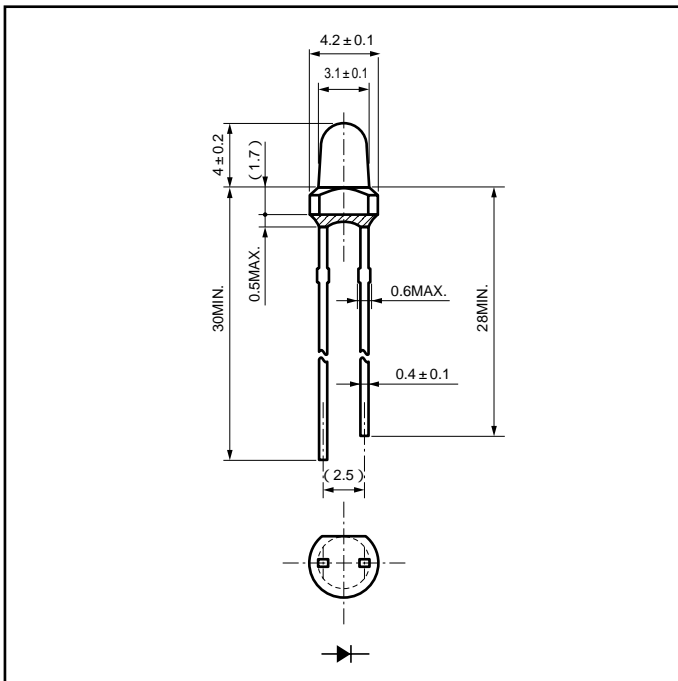
■ Electro-Optical Characteristics

Ta = 25°C

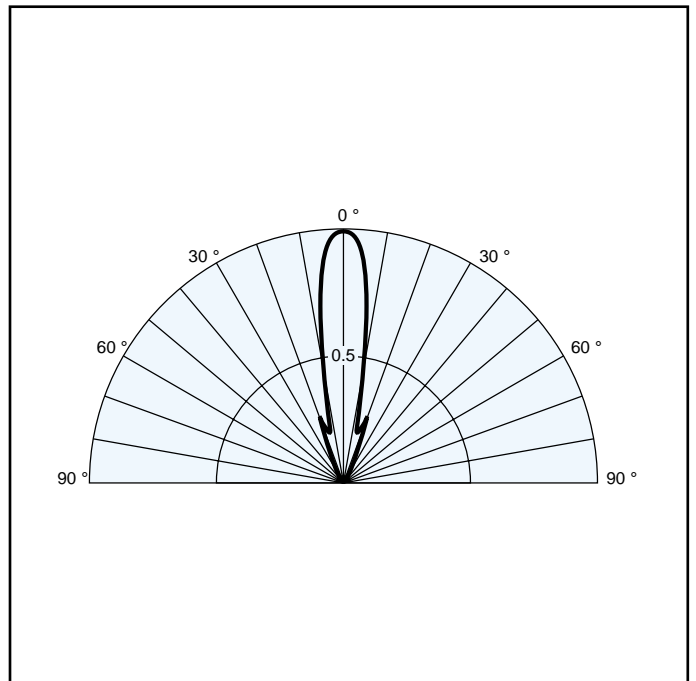
Part No.	Chip		Lens	Luminous Intensity			Wavelength				Forward Voltage			Reverse Current		
	Material	Emitted Color		MIN	TYP	IF	λ d	λ p	Δ λ	VF			MAX	VR		
										TYP	MAX	IF				
DB3803X	InGaN/SiC	Blue	Water Clear	Clear	250	500	20	470	467	26	20	3.5	4.0	20	100	5
DC3803X	InGaN/SiC	Blue Green	Water Clear		600	1,200	20	505	502	30	20	3.5	4.0	20	100	5
DG3803X	InGaN/SiC	Green	Water Clear		600	1,200	20	525	522	30	20	3.5	4.0	20	100	5
FY3863X	AlGaInP	Yellow	Pastel Yellow		360	720	20	590	592	15	20	1.9	2.4	20	100	5
FA3863X	AlGaInP	Orange	Pastel Orange		400	800	20	605	609	15	20	1.9	2.4	20	100	5
FR3863X	AlGaInP	Red	Pastel Red		320	640	20	626	635	15	20	1.9	2.4	20	100	5
Units					mcd	mcd	mA	nm	nm	nm	mA	V	V	mA	μA	V

■ Package Dimensions

Unit : mm



■ Spatial Distribution

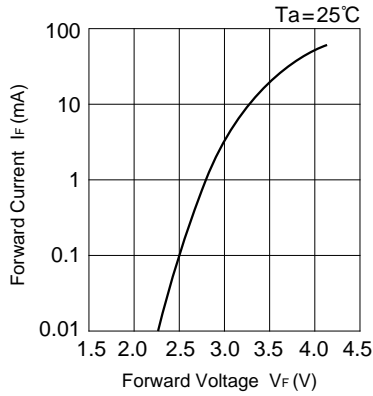




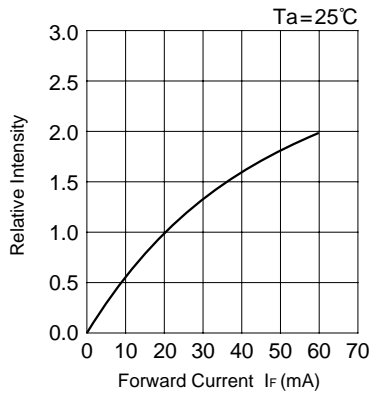
■ SUPER BRIGHT LED

DB 3803X

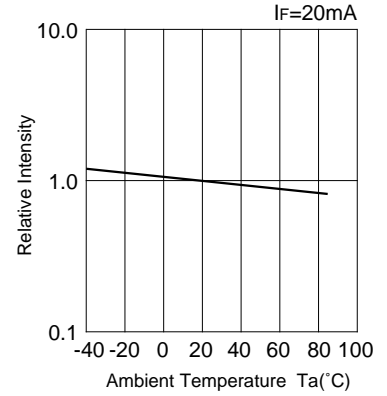
■ Forward Voltage vs. Forward Current



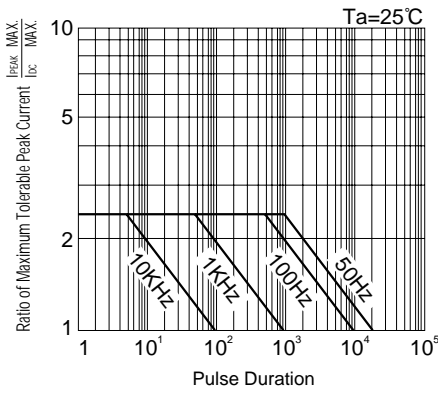
■ Forward Current vs. Relative Intensity



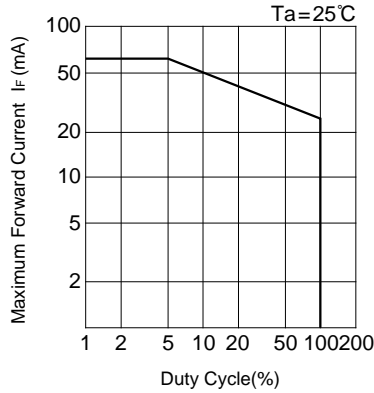
■ Ambient Temperature vs. Relative Intensity



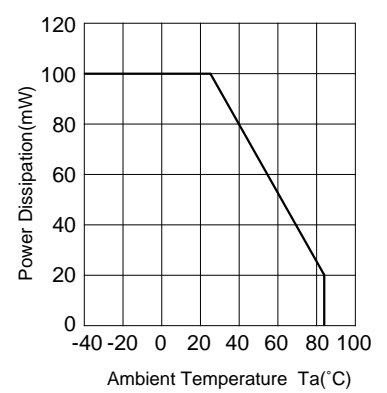
■ Pulse Duration vs. Maximum Tolerable Peak Current



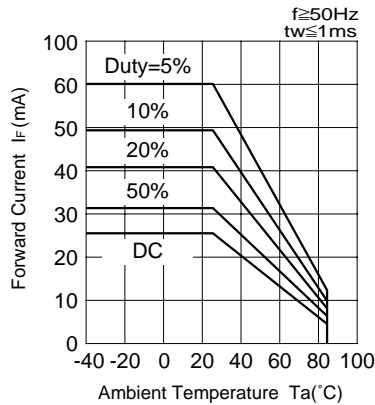
■ Duty Cycle vs. Maximum Forward Current



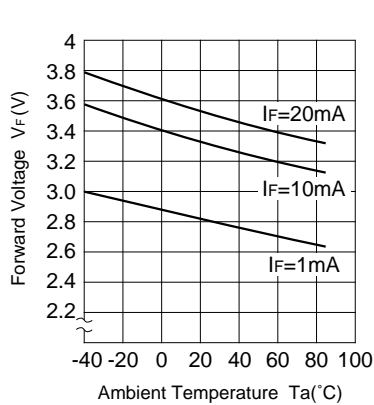
■ Power Dissipation vs. Ambient Temperature



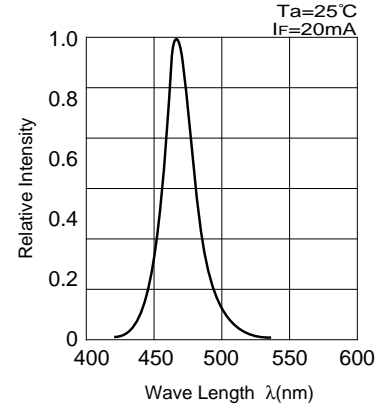
■ Ambient Temperature vs. Maximum Forward Current



■ Forward Voltage vs. Ambient Temperature



■ Spectral Distribution

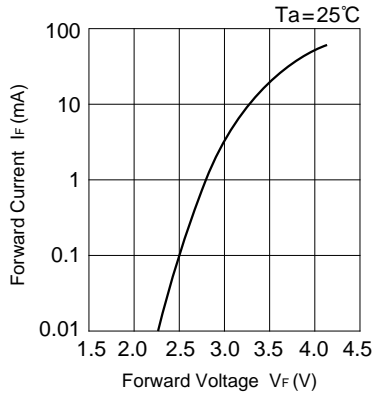




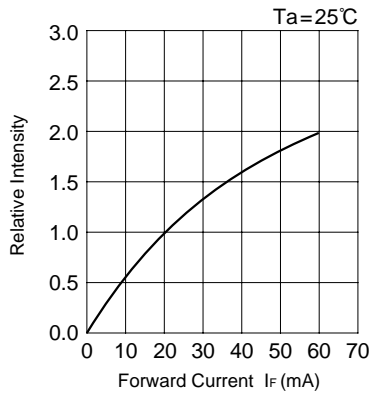
■ SUPER BRIGHT LED

DC 3803X

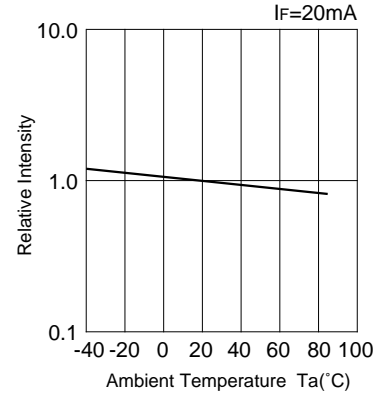
■ Forward Voltage vs. Forward Current



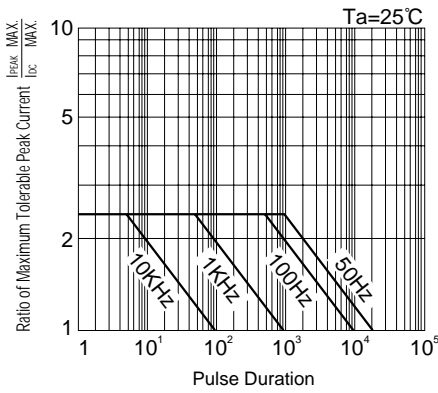
■ Forward Current vs. Relative Intensity



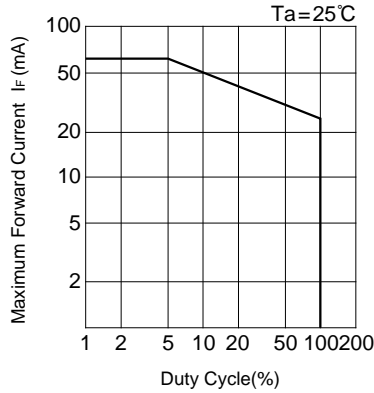
■ Ambient Temperature vs. Relative Intensity



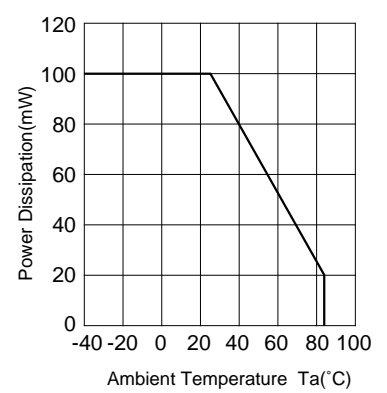
■ Pulse Duration vs. Maximum Tolerable Peak Current



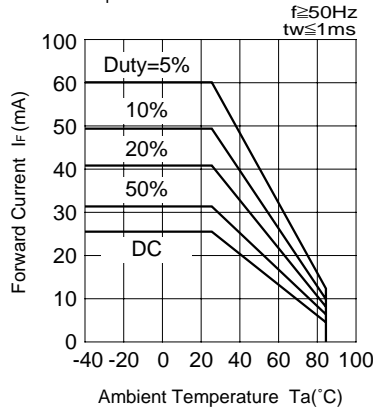
■ Duty Cycle vs. Maximum Forward Current



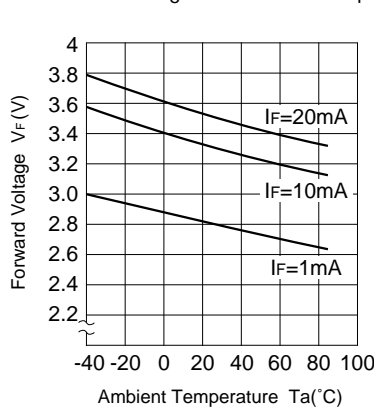
■ Power Dissipation vs. Ambient Temperature



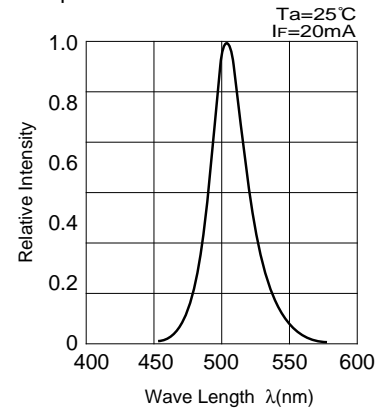
■ Ambient Temperature vs. Maximum Forward Current



■ Forward Voltage vs. Ambient Temperature



■ Spectral Distribution

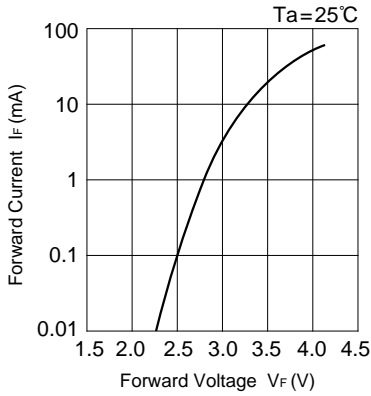




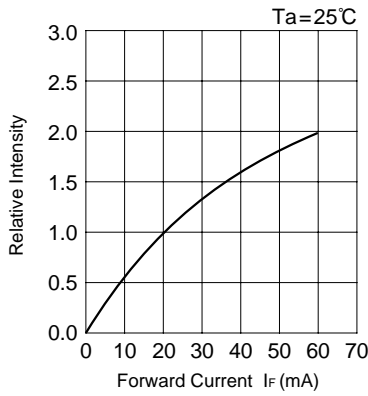
■ SUPER BRIGHT LED

DG 3803X

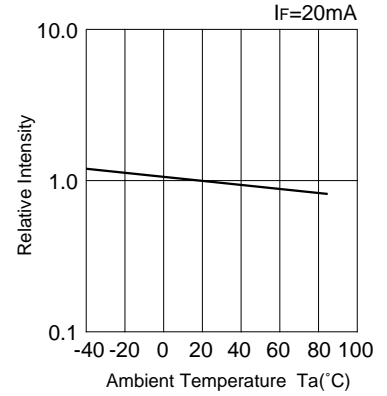
■ Forward Voltage vs. Forward Current



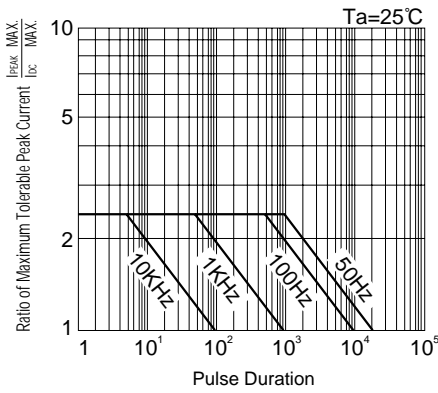
■ Forward Current vs. Relative Intensity



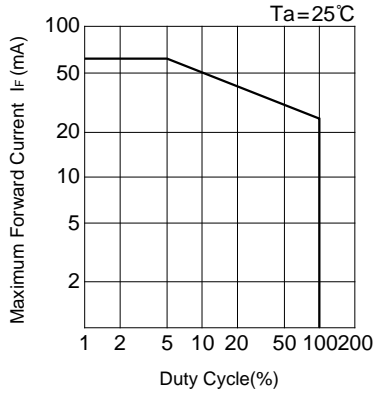
■ Ambient Temperature vs. Relative Intensity



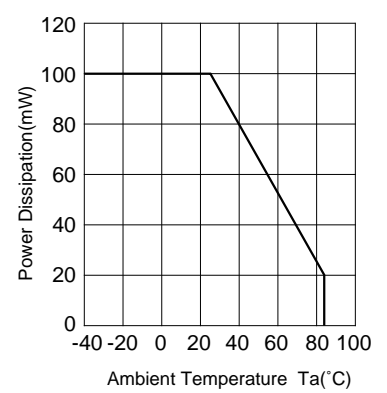
■ Pulse Duration vs. Maximum Tolerable Peak Current



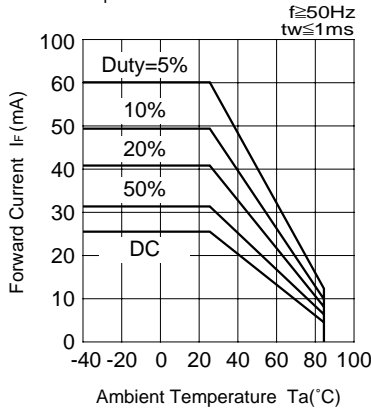
■ Duty Cycle vs. Maximum Forward Current



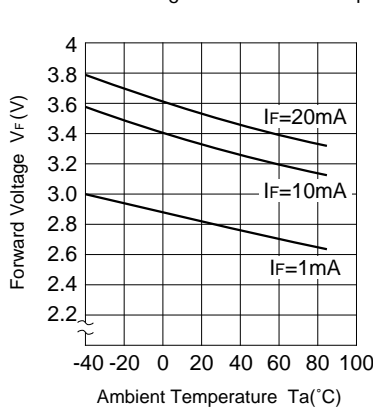
■ Power Dissipation vs. Ambient Temperature



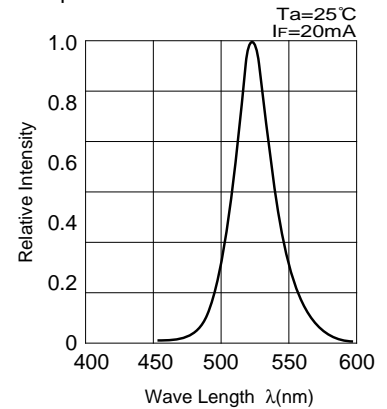
■ Ambient Temperature vs. Maximum Forward Current



■ Forward Voltage vs. Ambient Temperature



■ Spectral Distribution

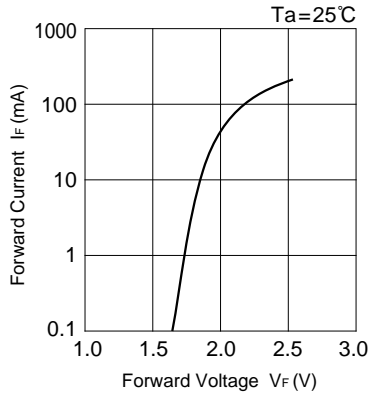




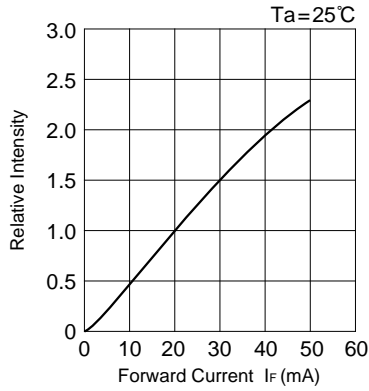
■ SUPER BRIGHT LED

FY 3863X

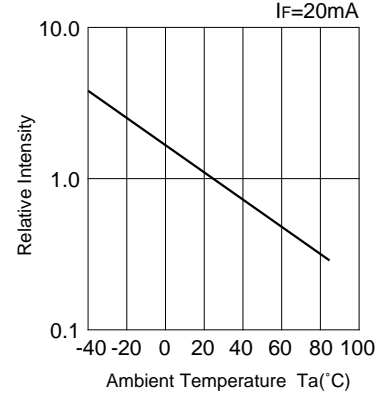
■ Forward Voltage vs. Forward Current



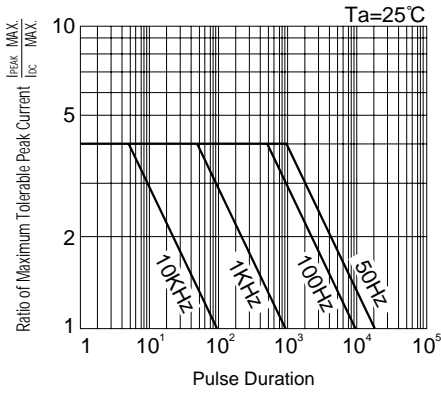
■ Forward Current vs. Relative Intensity



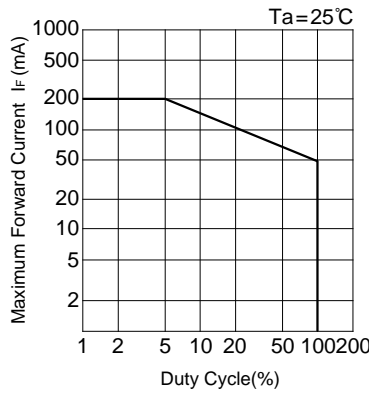
■ Ambient Temperature vs. Relative Intensity



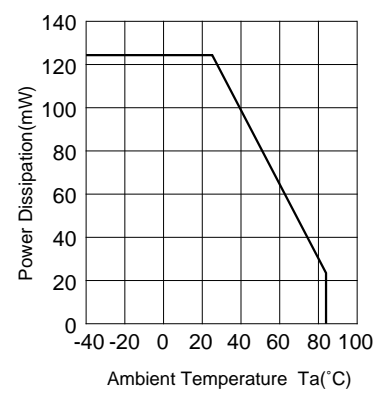
■ Pulse Duration vs. Maximum Tolerable Peak Current



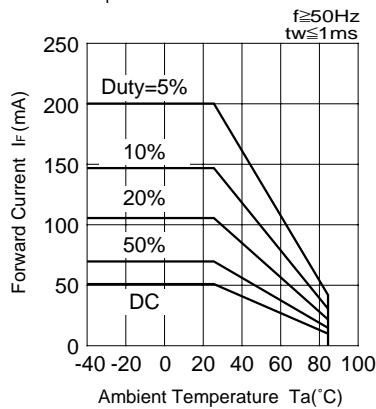
■ Duty Cycle vs. Maximum Forward Current



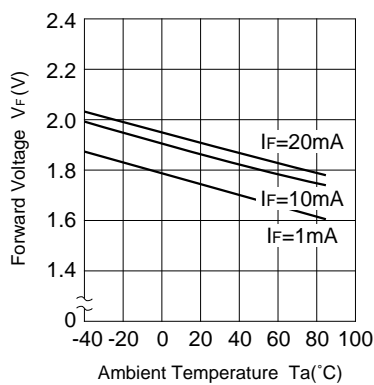
■ Power Dissipation vs. Ambient Temperature



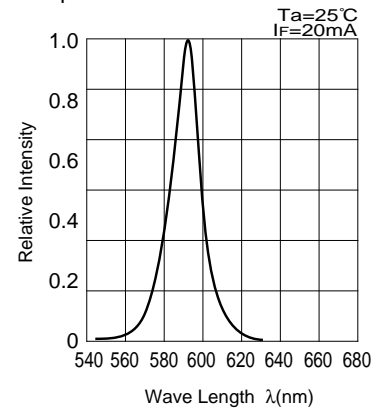
■ Ambient Temperature vs. Maximum Forward Current



■ Forward Voltage vs. Ambient Temperature



■ Spectral Distribution

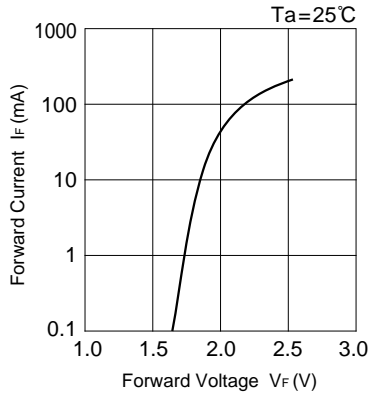




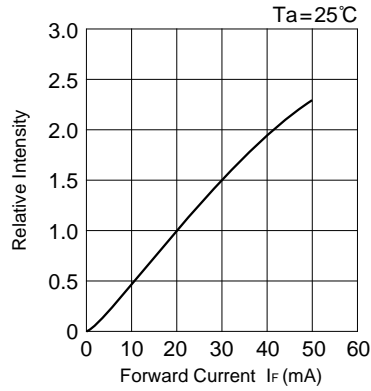
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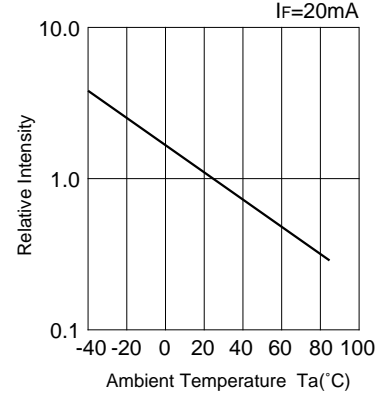
■ Forward Voltage vs. Forward Current



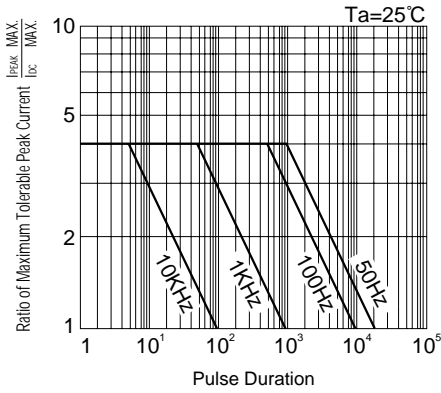
■ Forward Current vs. Relative Intensity



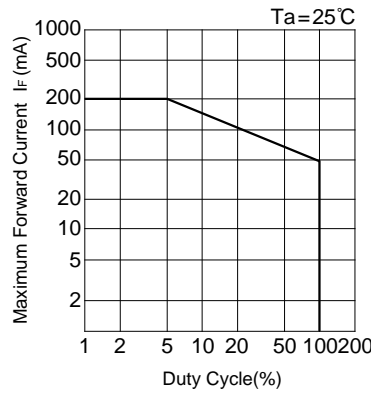
■ Ambient Temperature vs. Relative Intensity



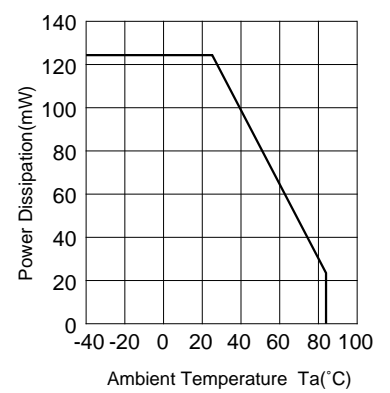
■ Pulse Duration vs. Maximum Tolerable Peak Current



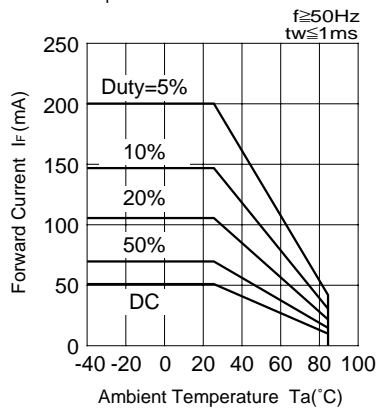
■ Duty Cycle vs. Maximum Forward Current



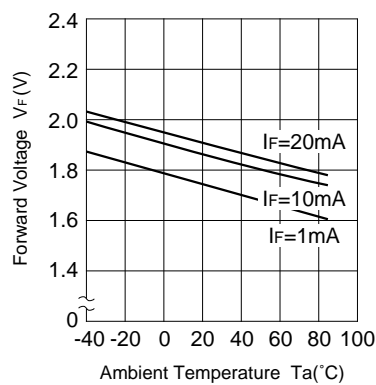
■ Power Dissipation vs. Ambient Temperature



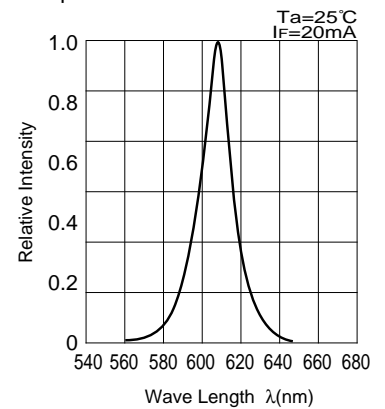
■ Ambient Temperature vs. Maximum Forward Current



■ Forward Voltage vs. Ambient Temperature



■ Spectral Distribution

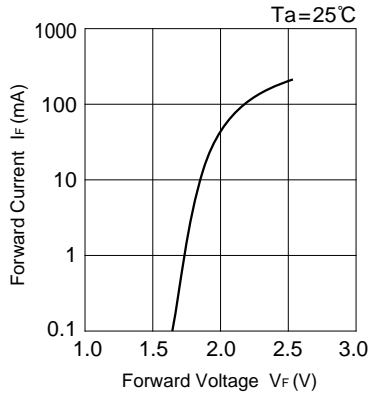




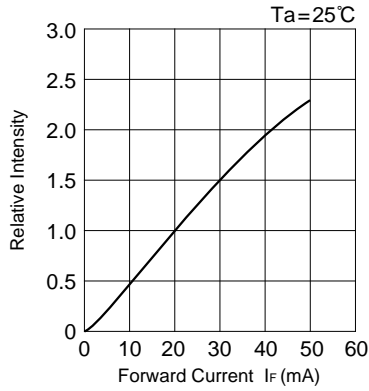
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FR 3863X

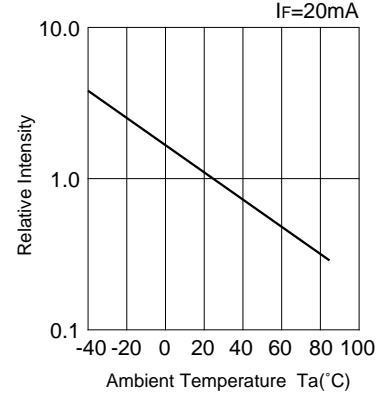
■ Forward Voltage vs. Forward Current



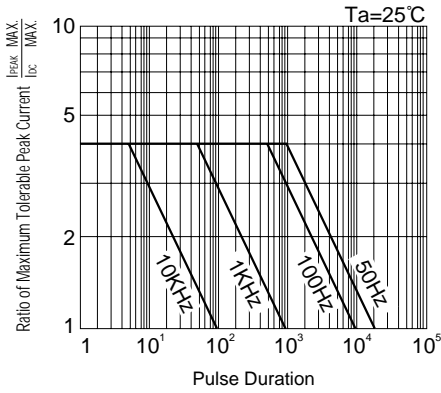
■ Forward Current vs. Relative Intensity



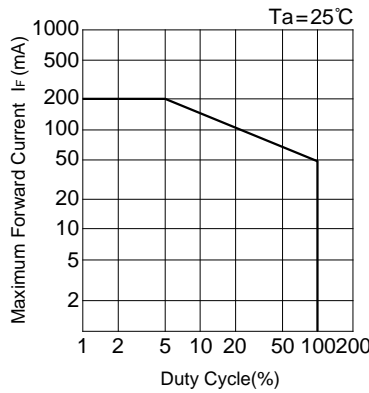
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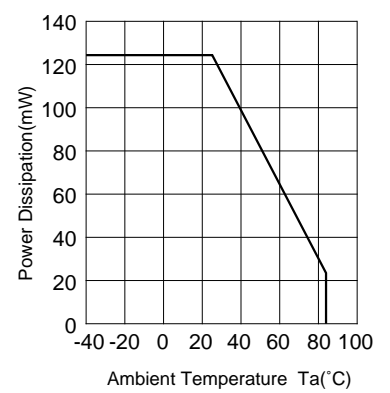
■ Pulse Duration vs. Maximum Tolerable Peak Current



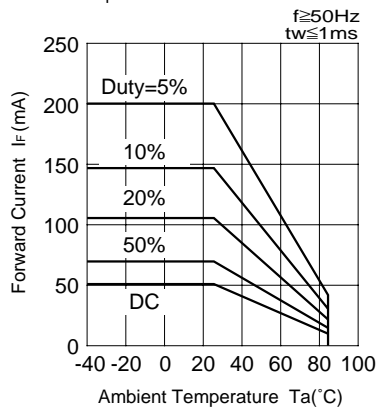
■ Duty Cycle vs. Maximum Forward Current



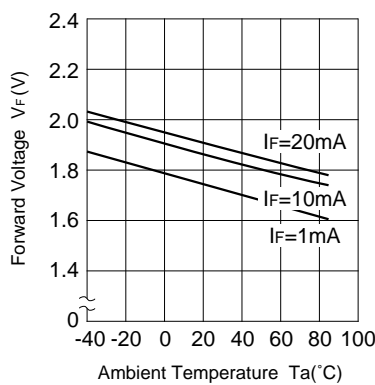
■ Power Dissipation vs. Ambient Temperature



■ Ambient Temperature vs. Maximum Forward Current



■ Forward Voltage vs. Ambient Temperature



■ Spectral Distribution

