

TOSHIBA InGaAlP LED

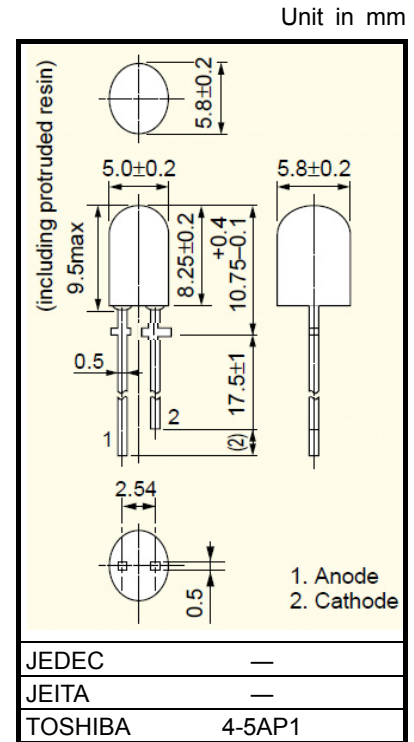
## TLRE27C(F),TLRME27C(F),TLSE27C(F), TLOE27C(F),TLYE27C(F),TLGE27C(F)

### Panel Circuit Indicator

- Lead(Pb)-free products (lead: Sn-Ag-Cu)
- Elliptical lens: Colored transparent lens
- InGaAlP technology
- All plastic mold type
- High intensity light emission
- Excellent low current light output
- Applications: Outdoor message signboards, full color panel, backlight

### Lineup

Product Name	Color	Material
TLRE27C(F)	Red	InGaAlP
TLRME27C(F)	Red	
TLSE27C(F)	Red	
TLOE27C(F)	Orange	
TLYE27C(F)	Yellow	
TLGE27C(F)	Green	



Weight: 0.3g(Typ.)

### Absolute Maximum Ratings (Ta = 25°C)

Product Name	Forward Current I <sub>F</sub> (mA)	Reverse Voltage V <sub>R</sub> (V)	Power Dissipation P <sub>D</sub> (mW)	Operating Temperature T <sub>opr</sub> (°C)	Storage Temperature T <sub>stg</sub> (°C)
TLRE27C(F)	50	4	120	-40~100	-40~120
TLRME27C(F)	50	4	120	-40~100	-40~120
TLSE27C(F)	50	4	120	-40~100	-40~120
TLOE27C(F)	50	4	120	-40~100	-40~120
TLYE27C(F)	50	4	120	-40~100	-40~120
TLGE27C(F)	50	4	120	-40~100	-40~120

Note: Using continuously under heavy loads (e.g. the application of high temperature/current/voltage and the significant change in temperature, etc.) may cause this product to decrease in the reliability significantly even if the operating conditions (i.e. operating temperature/current/voltage, etc.) are within the absolute maximum ratings.

Please design the appropriate reliability upon reviewing the Toshiba Semiconductor Reliability Handbook ("Handling Precautions"/"Derating Concept and Methods") and individual reliability data (i.e. reliability test report and estimated failure rate, etc).

## Electrical and Optical Characteristics (Ta = 25°C)

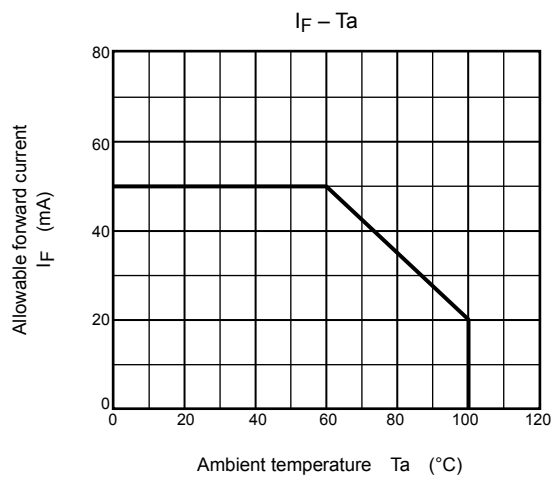
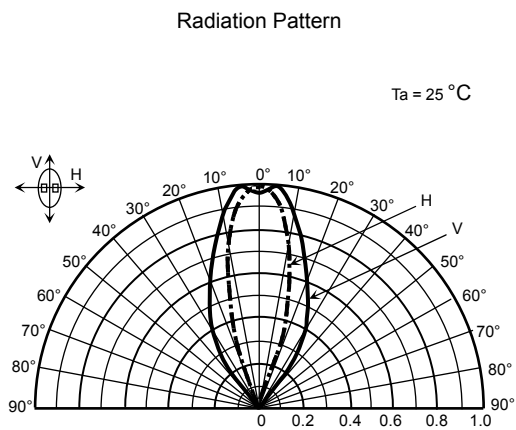
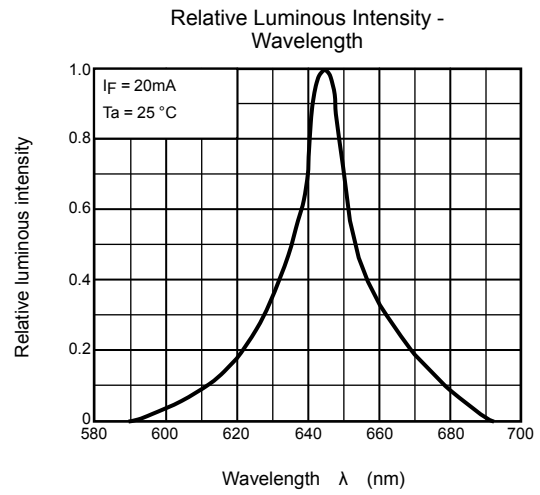
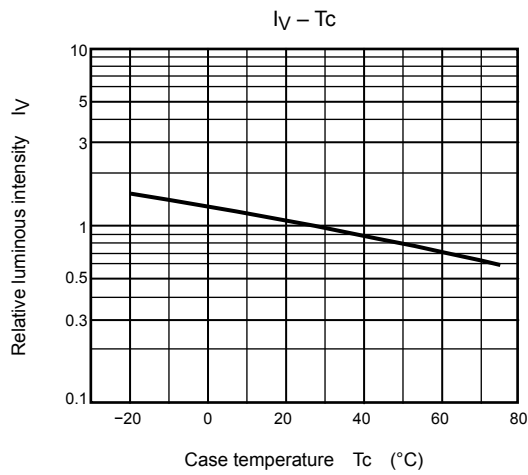
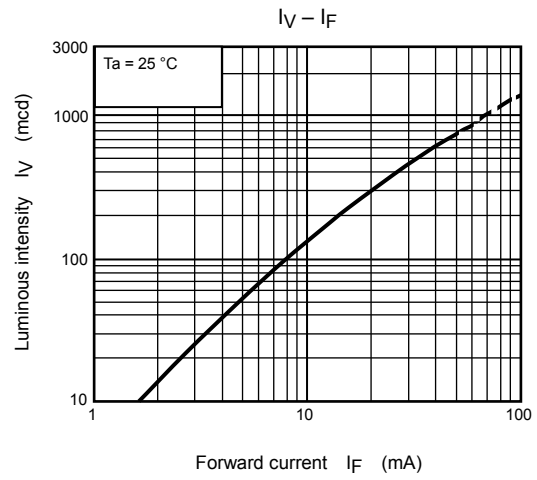
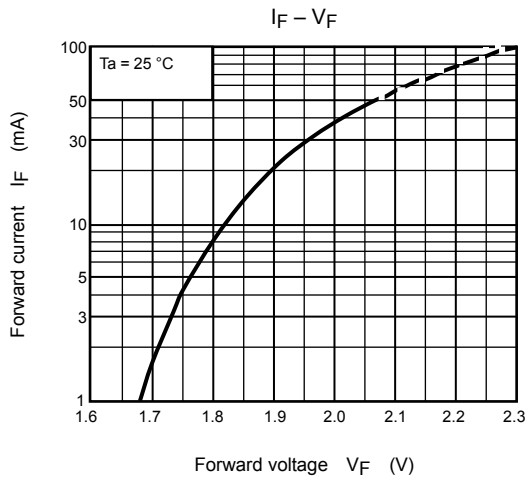
Product Name	Typ. Emission Wavelength				Luminous Intensity I <sub>v</sub>			Forward Voltage V <sub>F</sub>			Reverse Current I <sub>R</sub>	
	λ <sub>d</sub>	λ <sub>p</sub>	Δλ	I <sub>F</sub>	Min	Typ.	I <sub>F</sub>	Typ.	Max	I <sub>F</sub>	Max	V <sub>R</sub>
TLRE27C(F)	630	(644)	20	20	85	300	20	1.9	2.4	20	50	4
TLRME27C(F)	626	(636)	23	20	153	400	20	1.9	2.4	20	50	4
TLSE27C(F)	613	(623)	20	20	272	750	20	1.9	2.4	20	50	4
TLOE27C(F)	605	(612)	20	20	272	800	20	2.0	2.4	20	50	4
TLYE27C(F)	587	(590)	17	20	272	650	20	2.0	2.4	20	50	4
TLGE27C(F)	571	(574)	17	20	85	250	20	2.0	2.4	20	50	4
Unit	nm			mA	mcd		mA	V		mA	μA	V

## Precautions

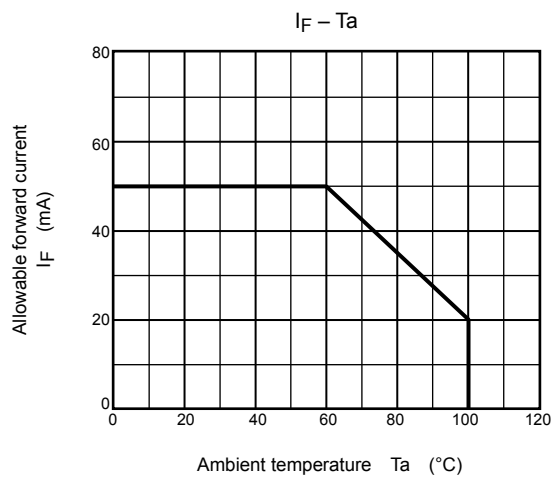
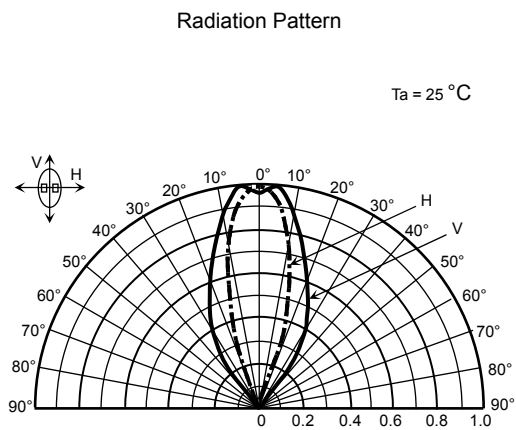
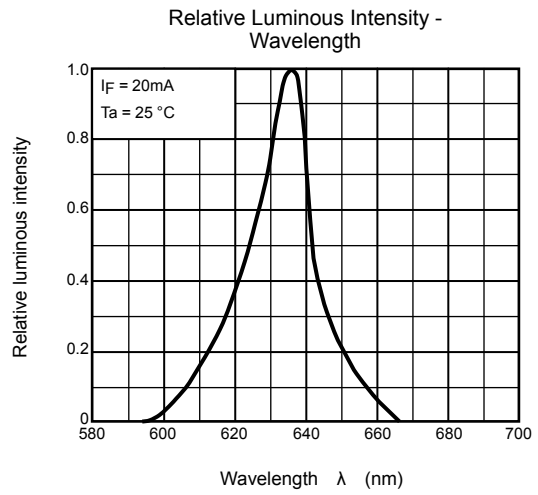
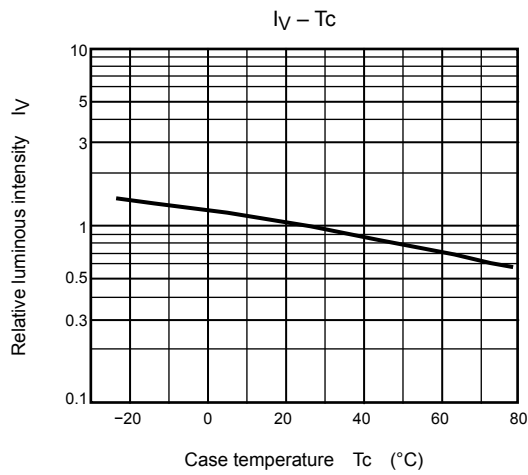
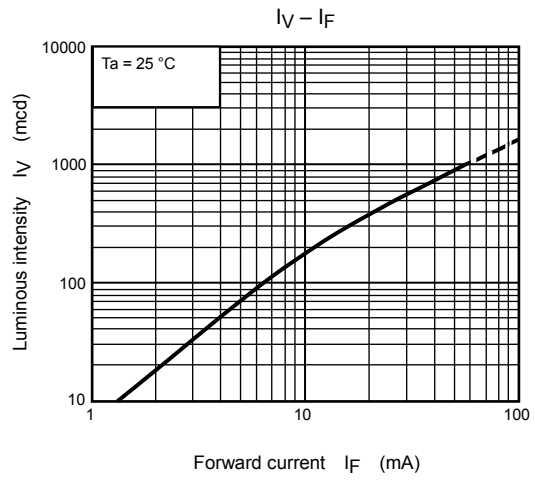
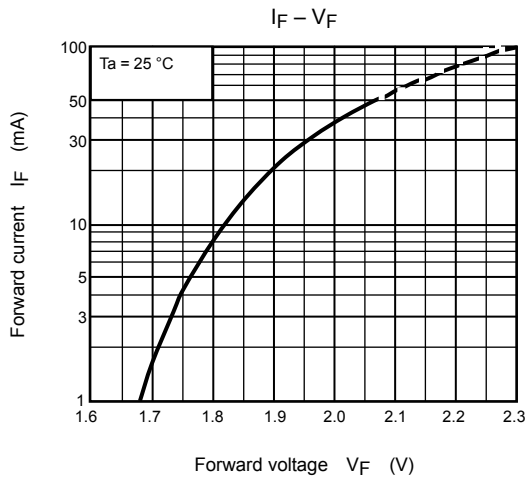
Please be careful of the following:

- Soldering temperature: 260°C max, soldering time: 3 s max  
(Soldering portion of lead: below the lead stopper of the device)
- If the lead is formed, the lead should be formed up to below the lead stopper of the device without forming stress to the resin. Soldering should be performed after lead forming.
- This visible LED lamp also emits some IR light.  
If a photodetector is located near the LED lamp, please ensure that it will not be affected by this IR light.

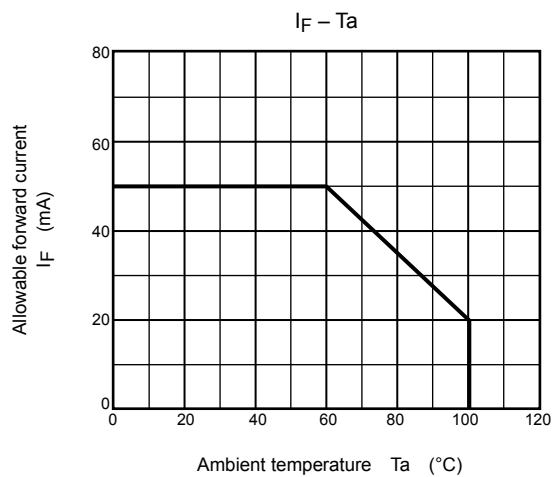
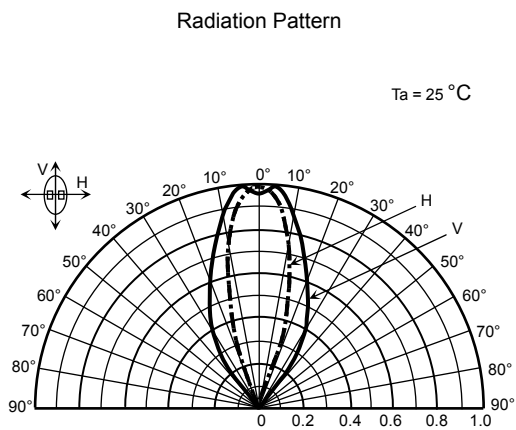
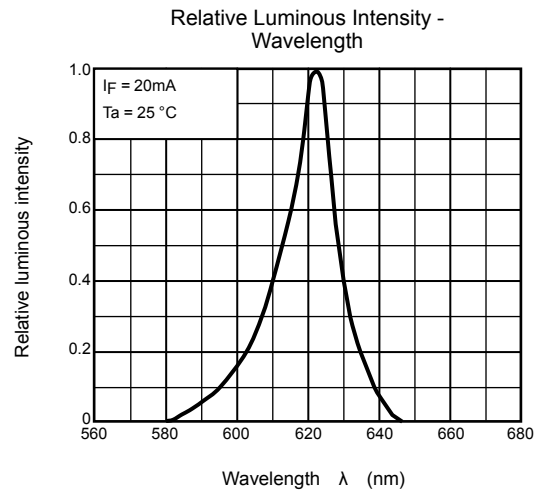
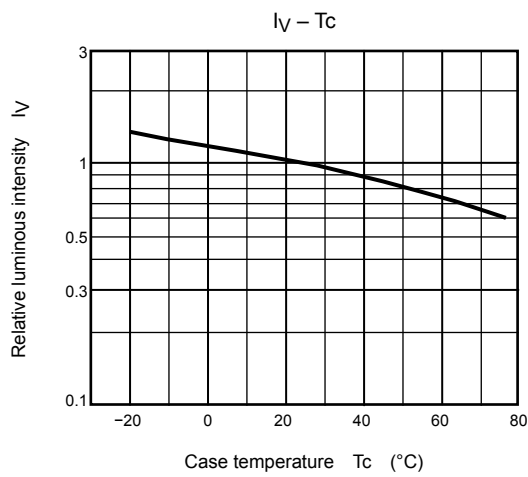
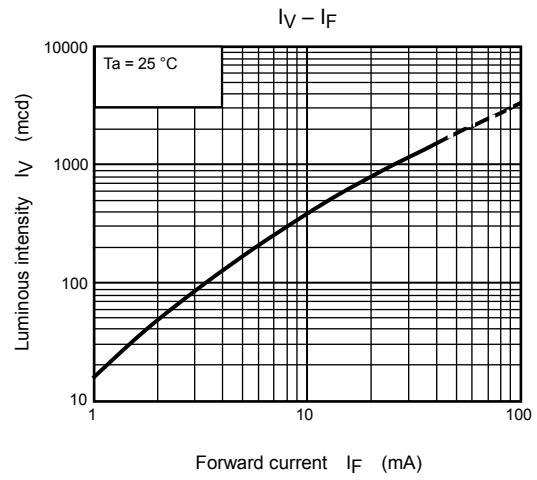
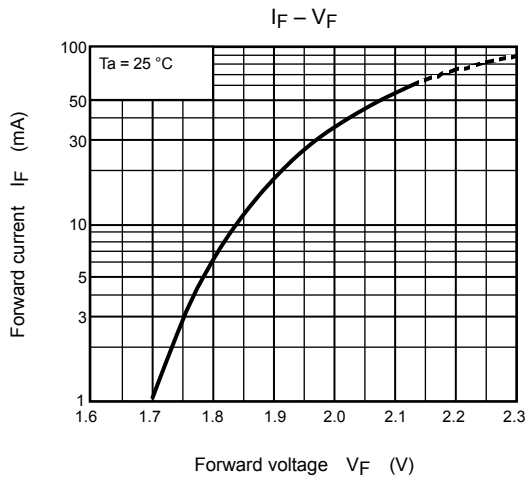
**TLRE27C(F)**



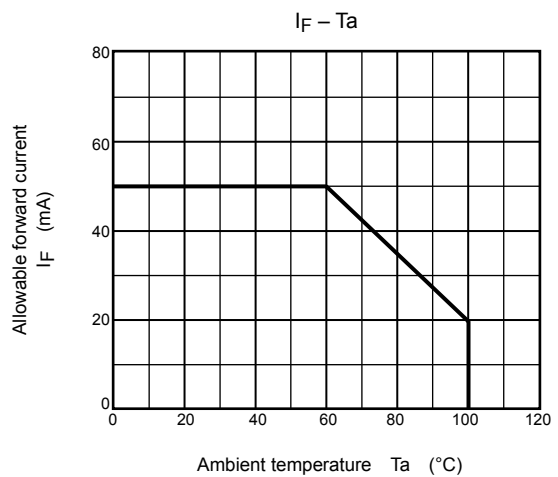
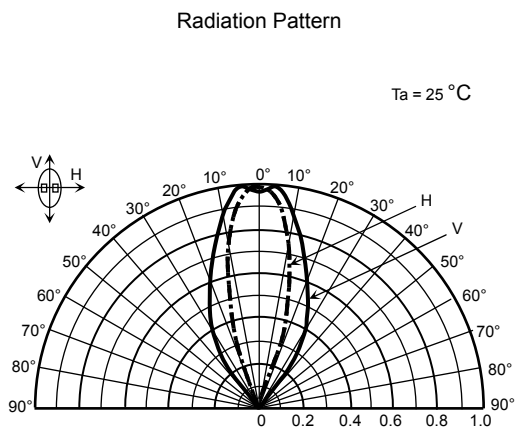
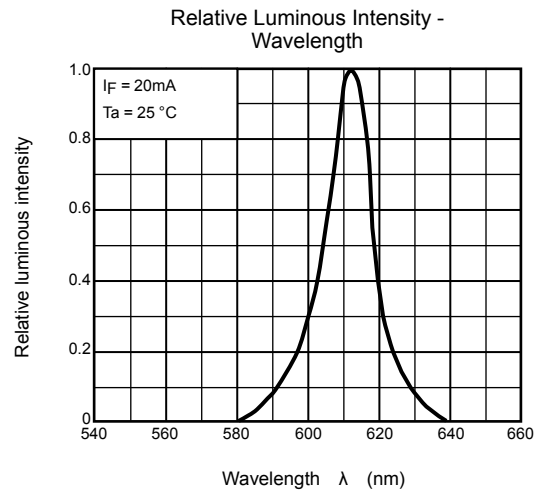
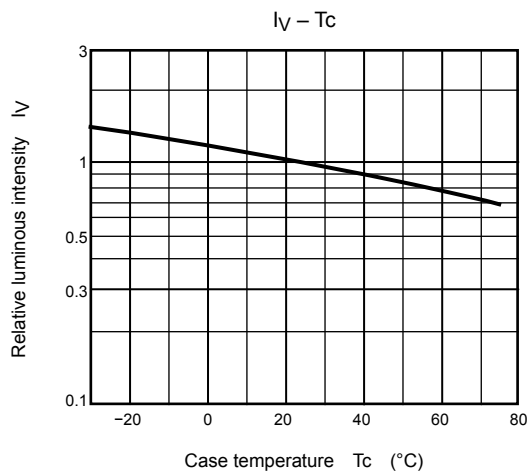
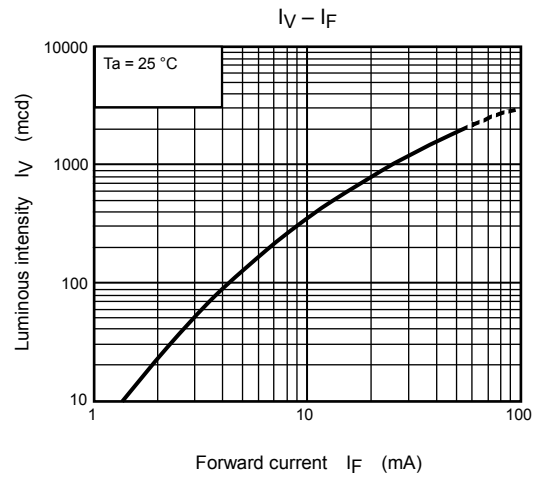
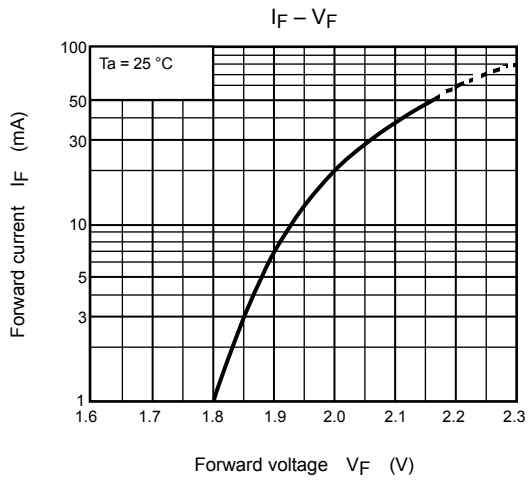
**TLRME27C(F)**



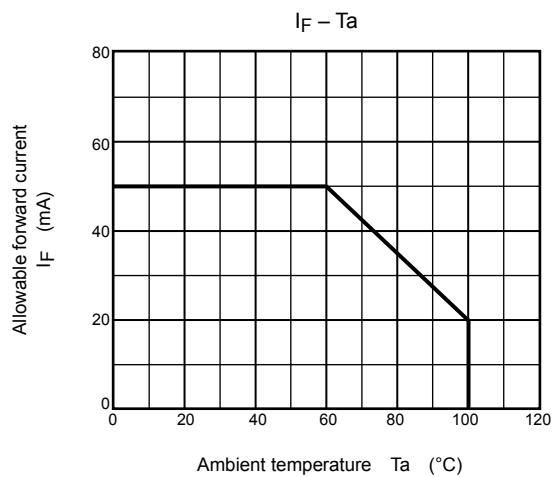
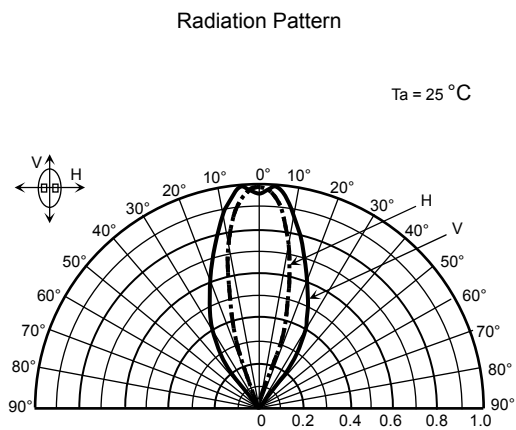
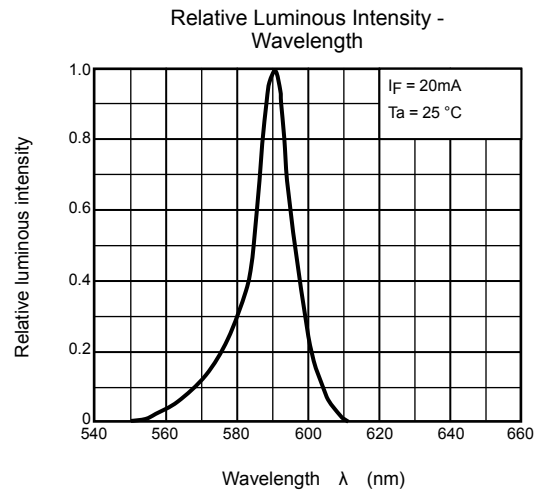
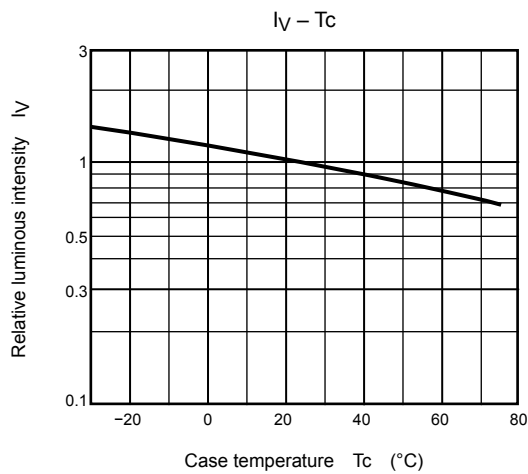
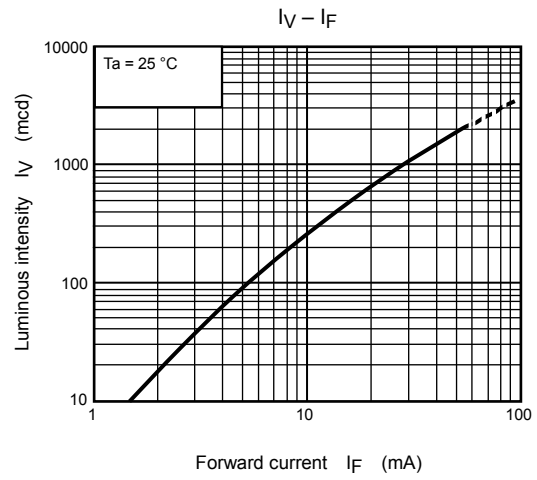
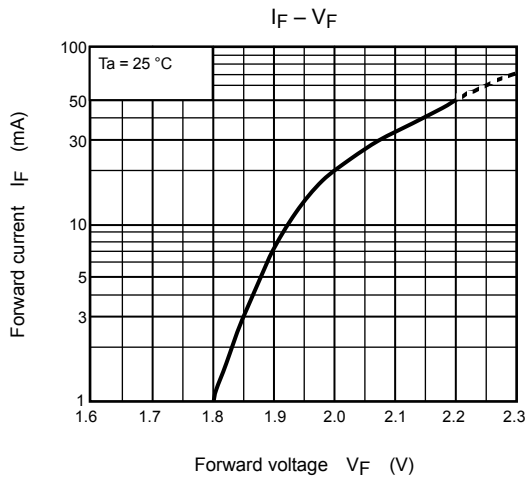
## TLSE27C(F)



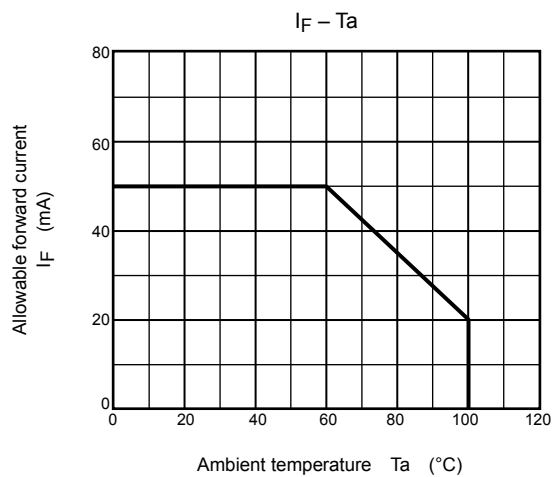
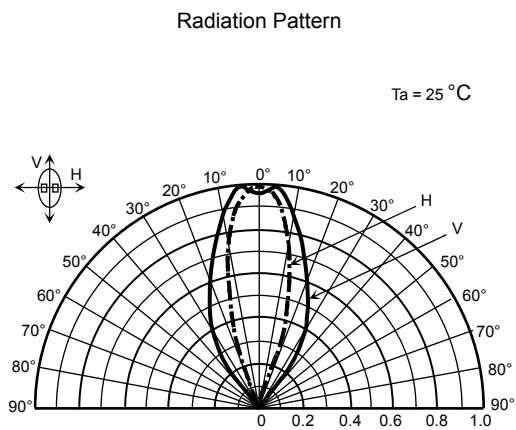
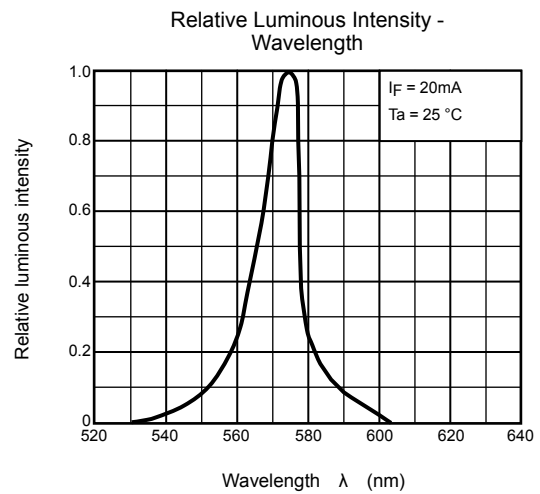
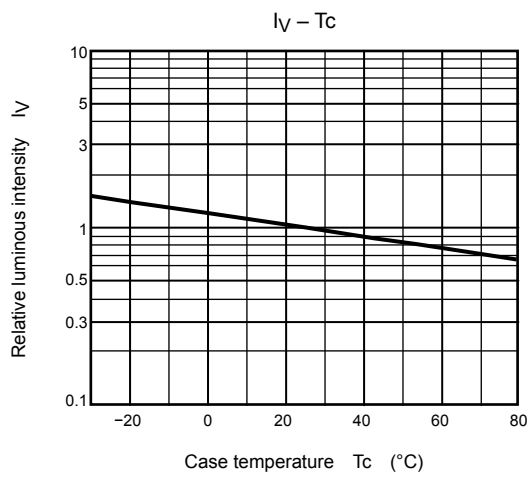
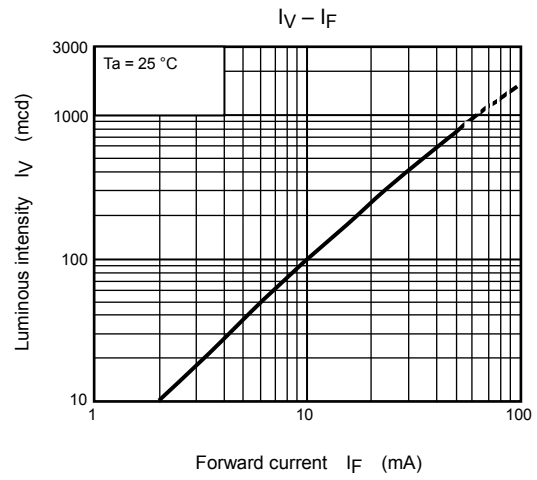
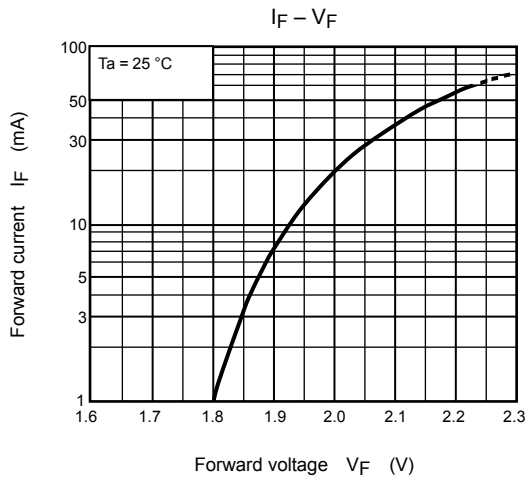
## TLOE27C(F)



## TLYE27C(F)



## TLGE27C(F)





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