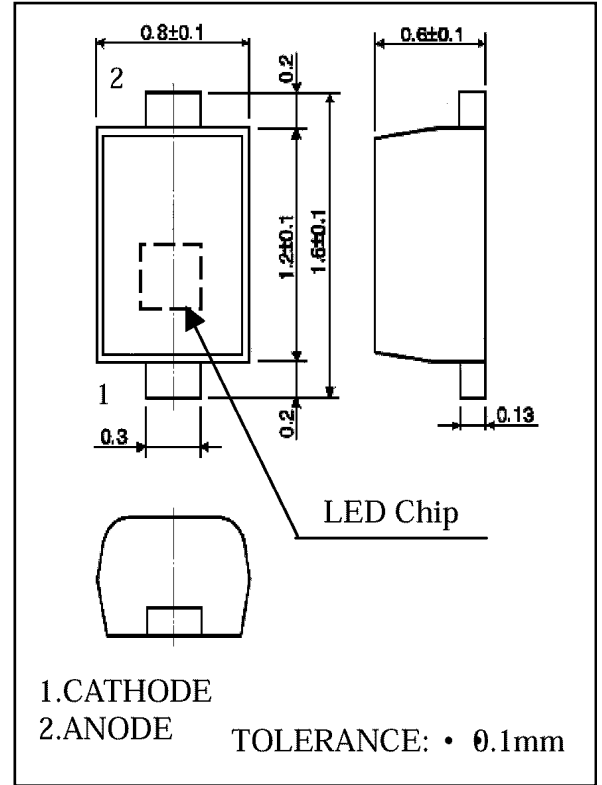


### Features

1.6(L)x0.8(W)x0.6(H)mm Size  
 InGaAIP Technology  
 High Luminous Intensity  
 Low Power Consumption  
 Suitable for Backlighting

### Applications

Backlighting



### Series Line-Up

Part Number	Color	Material
TLGV1020	Ultra Bright Yellow Green	InGaAIP
TLOV1020	Ultra Bright Orange	InGaAIP
TLPGV1020	Ultra Pure Green	InGaAIP
TLRMV1020	Ultra Red	InGaAIP
TLSV1020	Ultra Bright High Efficiency Red	InGaAIP
TLYV1020	Ultra Bright Yellow	InGaAIP

### Maximum Ratings (Ta=25°C)

Part Number	Forward Current I <sub>F</sub>	Reverse Voltage V <sub>R</sub>	Power Dissipation P <sub>D</sub>	Operating Temperature T <sub>opr</sub>	Storage Temperature T <sub>stg</sub>
TLGV1020	15	4	34.50	-40 ~ +100	-40 ~ +100
TLOV1020	15	4	34.50	-40 ~ +100	-40 ~ +100
TLPGV1020	15	4	34.50	-40 ~ +100	-40 ~ +100
TLRMV1020	15	4	34.50	-40 ~ +100	-40 ~ +100
TLSV1020	15	4	34.50	-40 ~ +100	-40 ~ +100
TLYV1020	15	4	34.50	-40 ~ +100	-40 ~ +100
Unit	mA	V	mW	°C	°C

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 Menands, New York 12204  
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 Fax: 518.432.7454



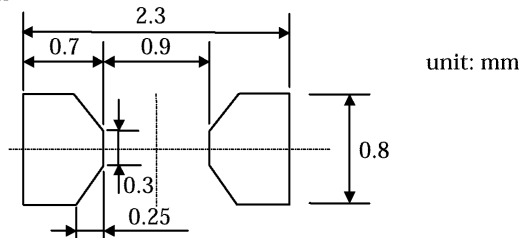
Web: [www.marktechopto.com](http://www.marktechopto.com) | Email: [info@marktechopto.com](mailto:info@marktechopto.com)

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 950 South Coast Drive, Suite 265  
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### Electrical and Optical Characteristics (Ta=25°C)

Part Number	PWL nm λP	Material	View Angle 2θ <sub>1/2</sub>	Luminous Intensity I <sub>v</sub>				Forward Voltage V <sub>F</sub>				Rev Current I <sub>R</sub>		
				min.	typ.	max.	IF@	min.	typ.	max.	IF@	max.	VR@	
TLGV1020	574	InGaAIP	140° x 130°	4.76	14.00	–	5mA	–	2.00	2.30	5mA	10	4V	
TLOV1020	612	InGaAIP	140° x 130°	8.50	38.00	–	5mA	–	2.00	2.30	5mA	10	4V	
TLPGV1020	562	InGaAIP	140° x 130°	1.53	3.50	–	5mA	–	2.00	2.30	5mA	10	4V	
TLRMV1020	636	InGaAIP	140° x 130°	4.76	15.00	–	5mA	–	2.00	2.30	5mA	10	4V	
TLSV1020	623	InGaAIP	140° x 130°	8.50	30.00	–	5mA	–	2.00	2.30	5mA	10	4V	
TLVY1020	590	InGaAIP	140° x 130°	8.50	25.00	–	5mA	–	2.00	2.30	5mA	10	4V	
–	nm	–	deg	mcd				–	V			–	μA	–

Recommended soldering pattern



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### PACKAGING

This LED device is packed in an aluminum envelope with silica-gel to avoid moisture absorption. The optical characteristics may be affected by exposure to moisture in the air before soldering and should be stored under the following conditions.

Temperature : 5~30°C  
 Relative humidity : 60% max.  
 Time : 168h

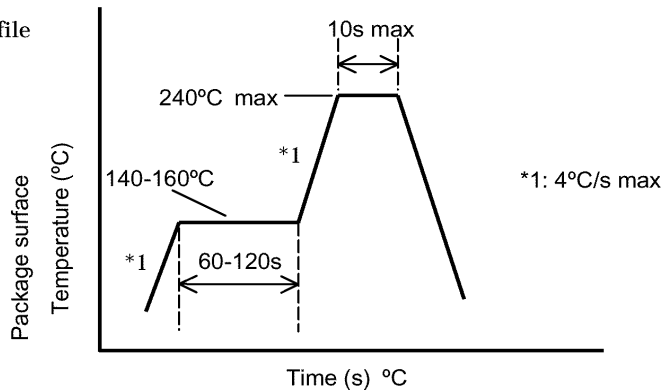
Baking is required if the device has been stored unopened for more than 6 months or if the aluminum envelope has been opened for more than 168h.

Recommended baking condition is 60°C for 12 hours minimum in a dry atmosphere.

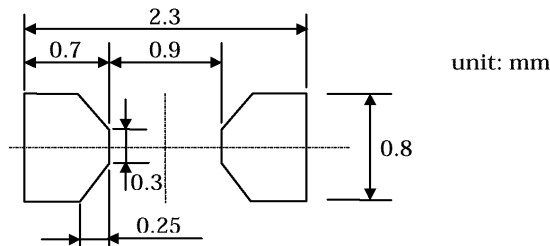
### SOLDERING

#### Reflow soldering

##### Temperature profile



#### Recommended soldering pattern



Please perform the first reflow soldering within 168h after opening the package with reference to the above temperature profile.

#### Second time reflow soldering

In the case of a second time reflow soldering, it should be performed within 168h after first reflow under the above conditions.

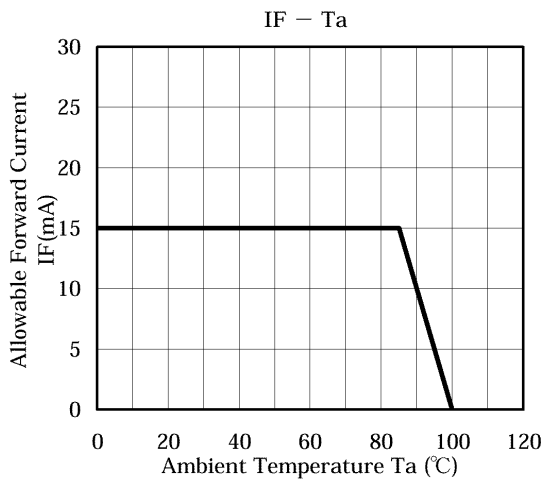
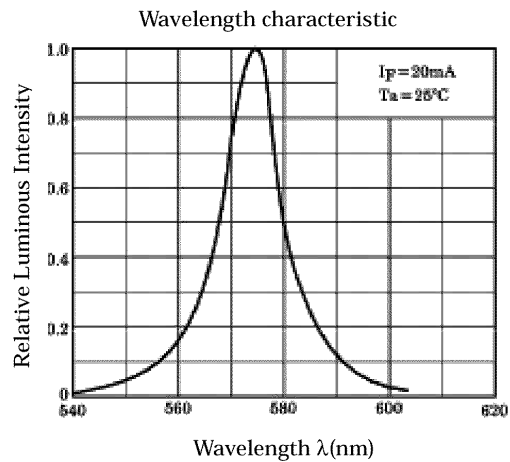
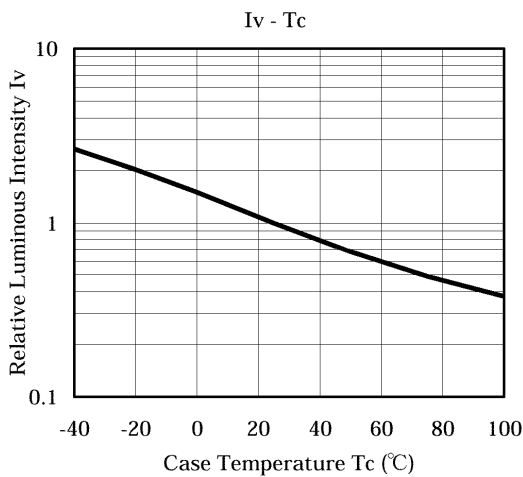
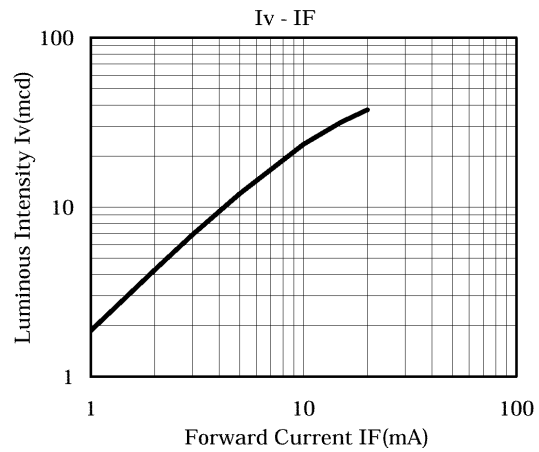
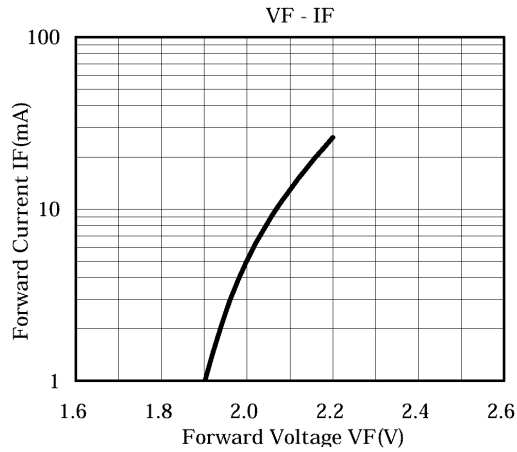
Storage conditions before second reflow soldering : 30°C, 60%RH or lower

Do not perform flow soldering.

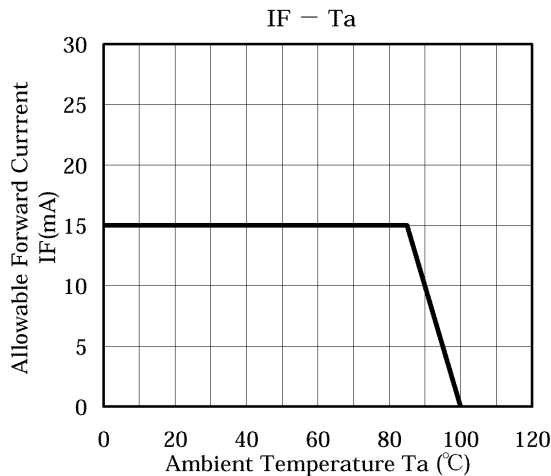
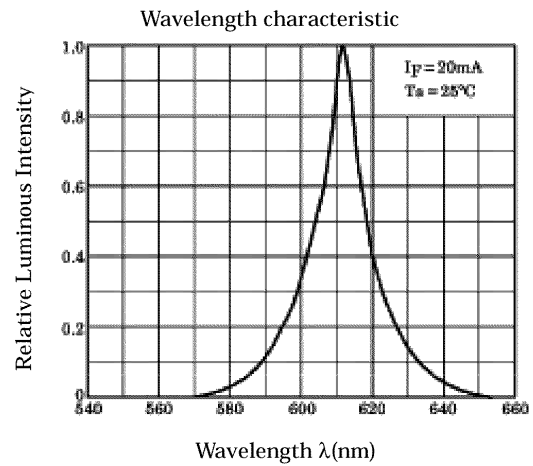
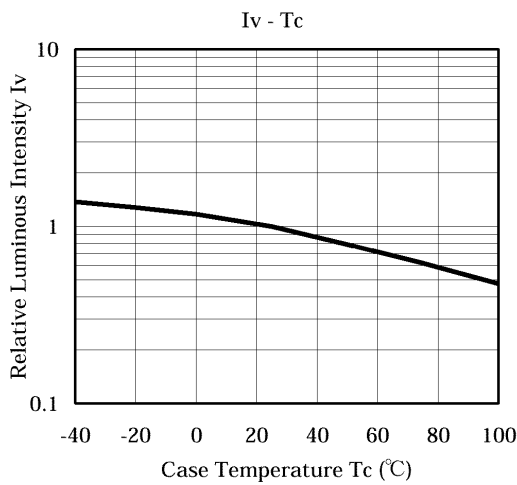
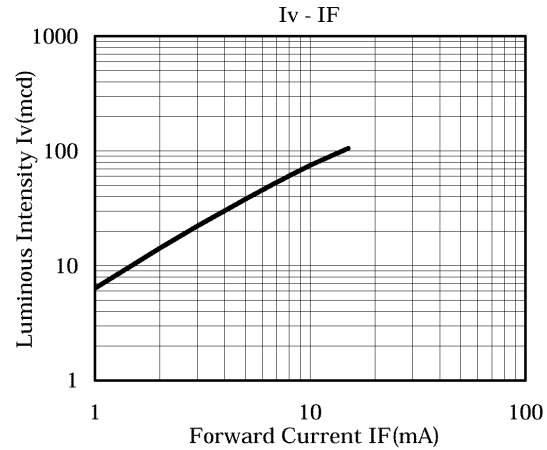
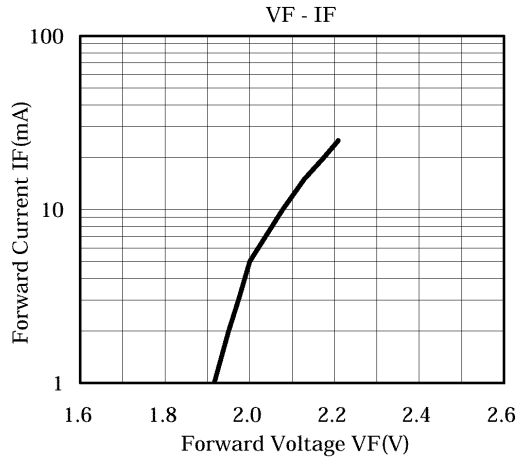
#### Recommended for manual soldering

Soldering iron : Less than 25W  
 Temperature : Lower than 30°C  
 Time : Within 3s(Up to 1 time per place)

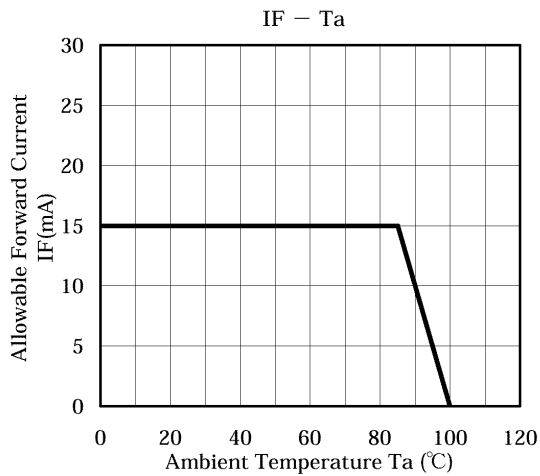
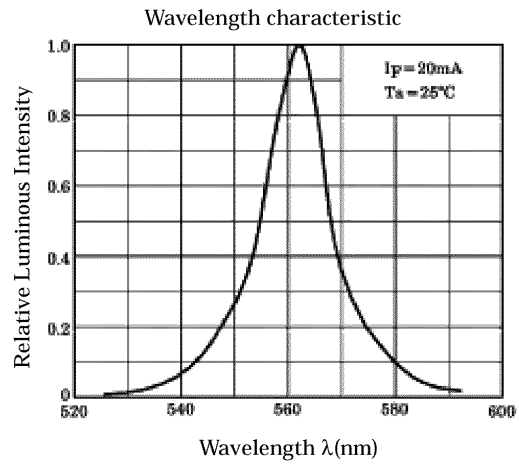
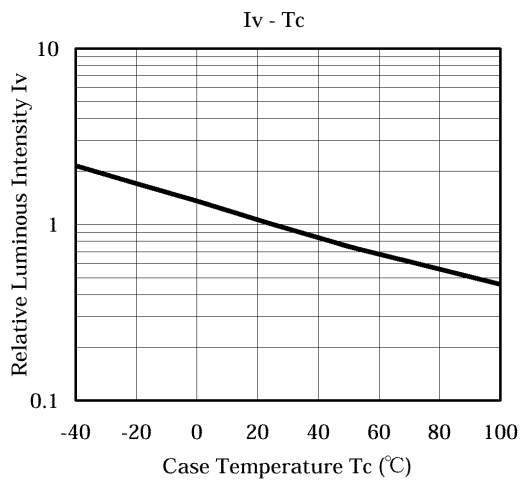
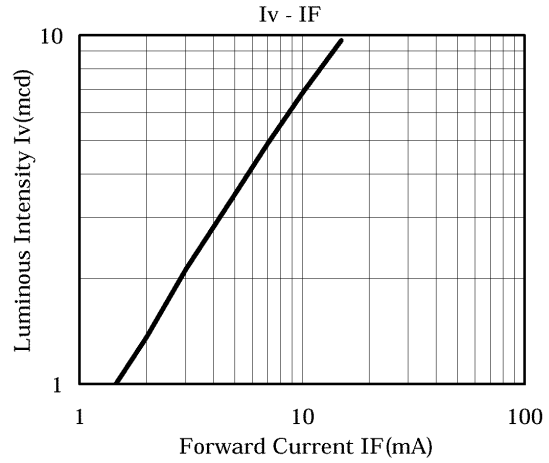
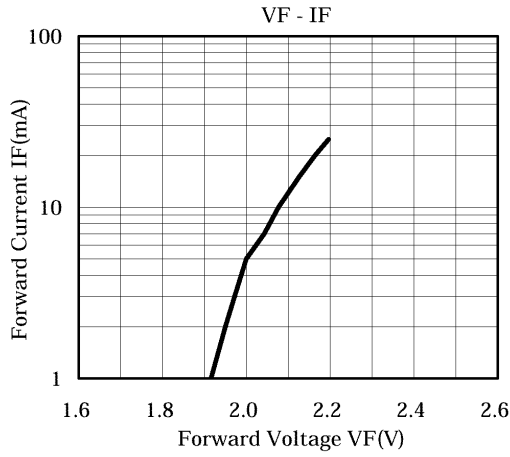
### TLGV1020 Graphs



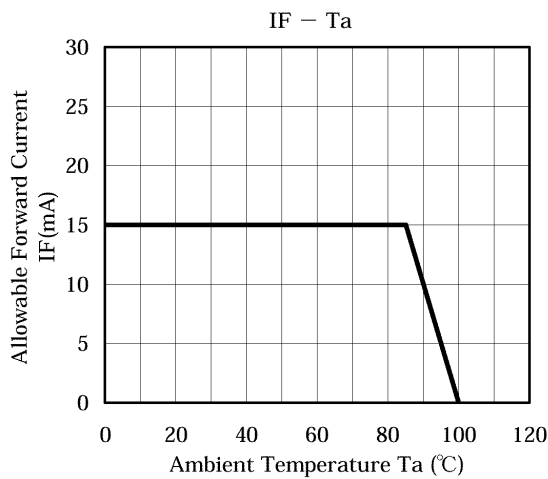
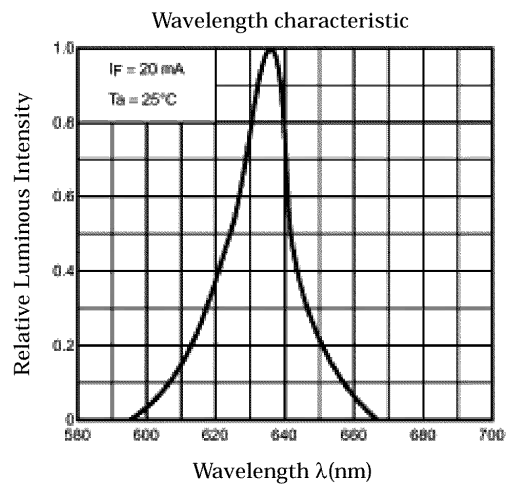
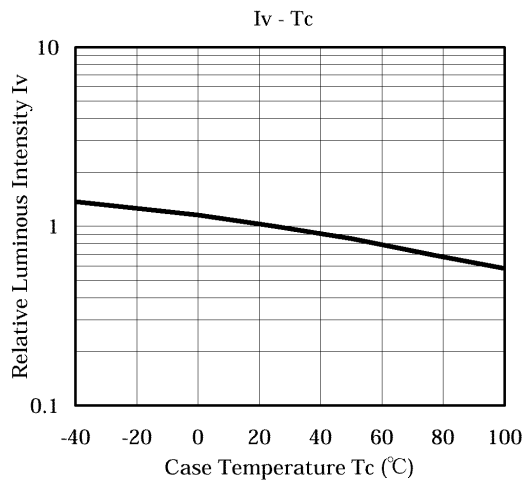
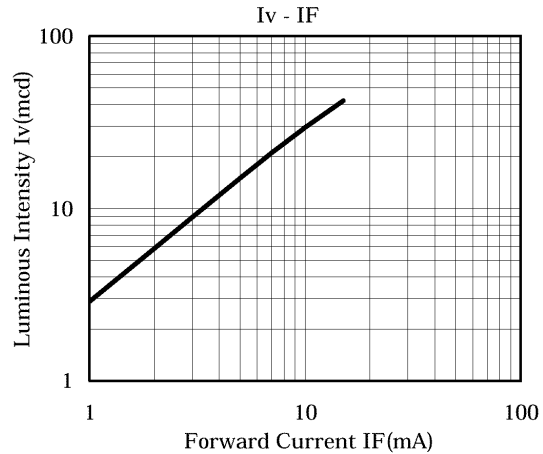
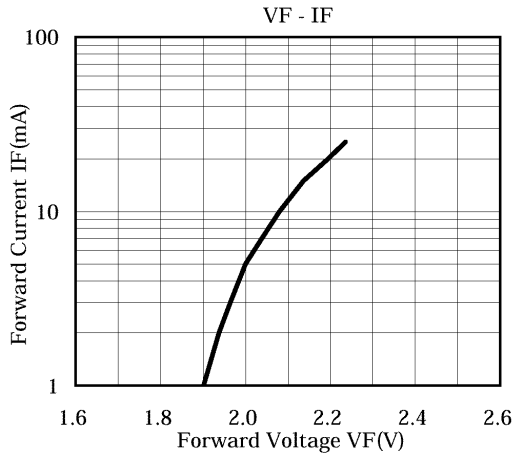
### TLOV1020 Graphs



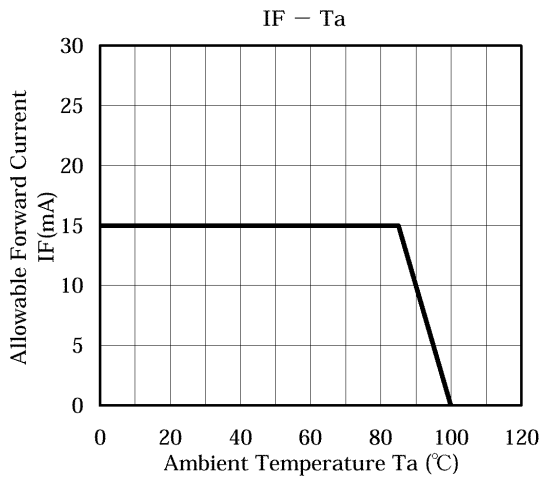
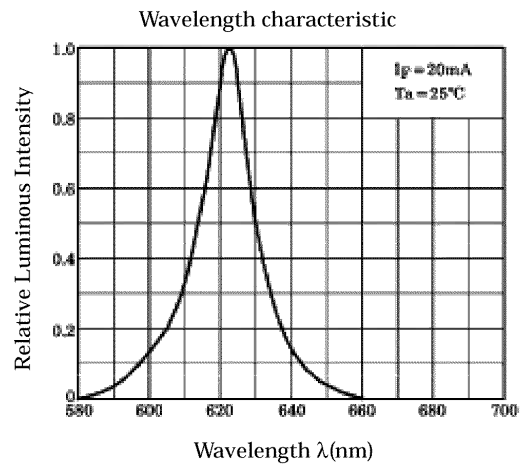
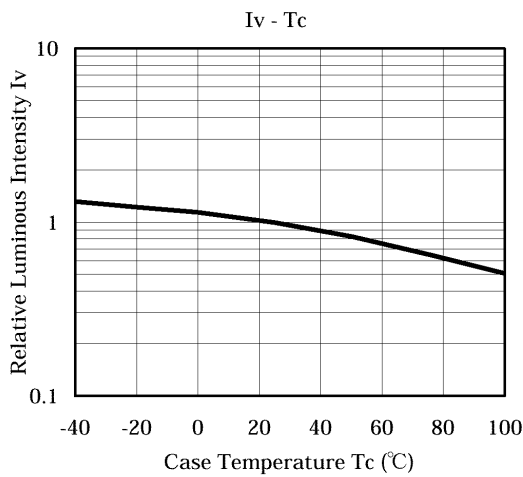
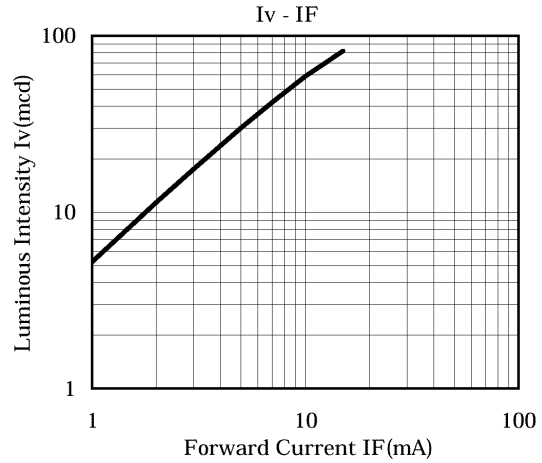
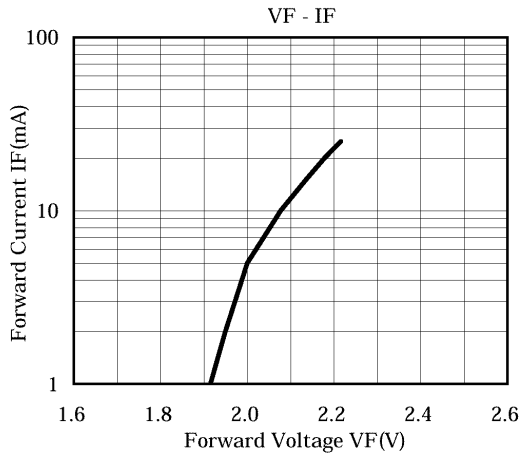
### TLPGV1020 Graphs



### TLRMV1020 Graphs

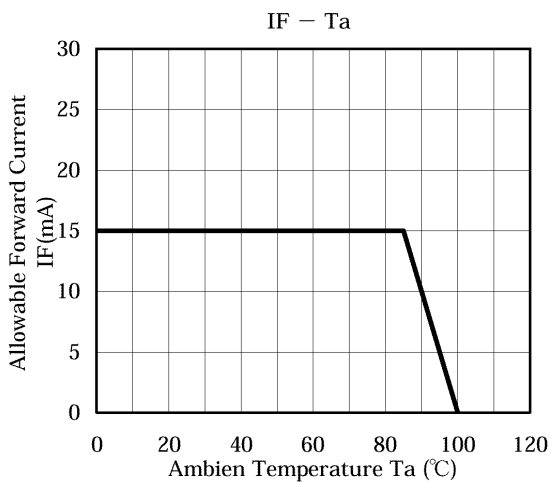
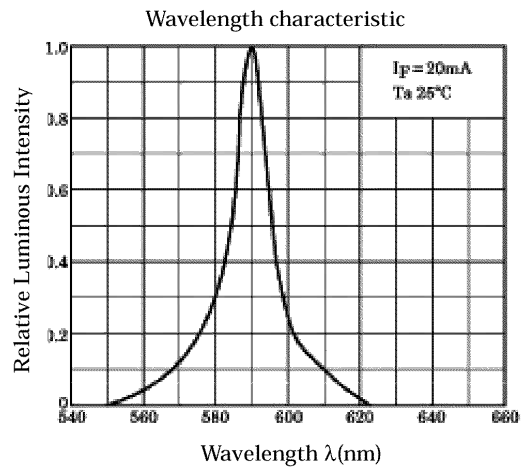
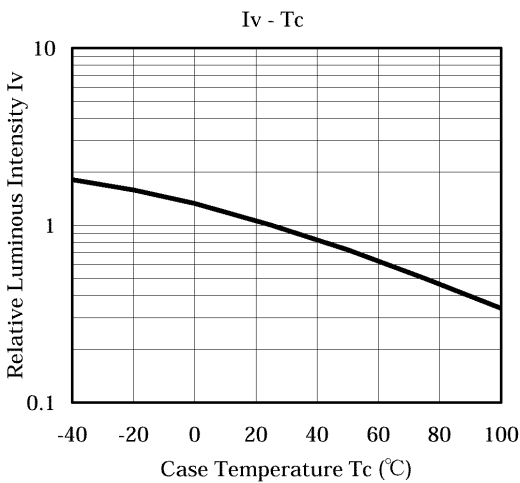
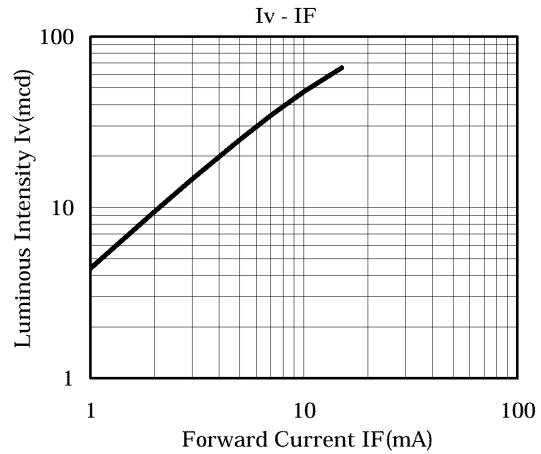
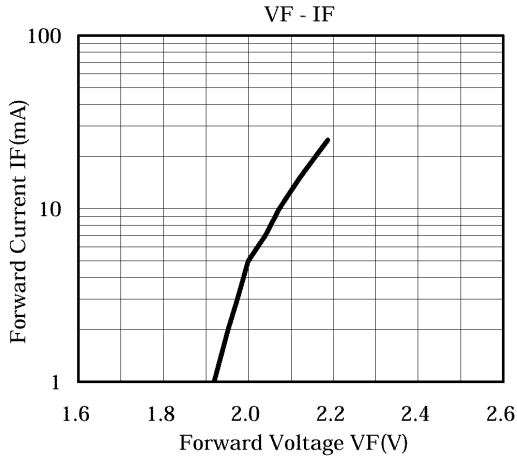


### TLSV1020 Graphs





### TLYV1020 Graphs



### TLxV1020 Radiation Pattern

