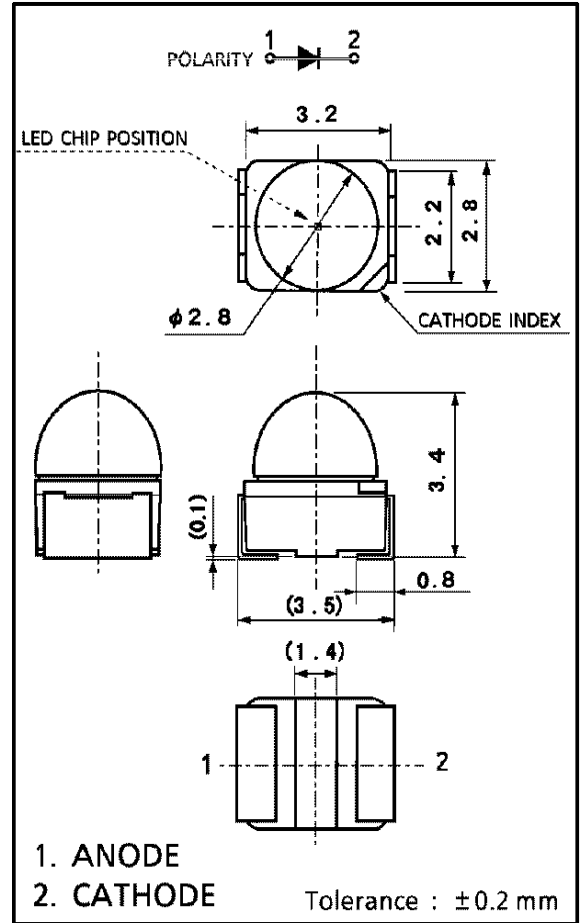


### Features

- 3.2 (L) x 2.8 (W) x 3.4 (H) mm Size
- 2.8 mm Diameter Lens-Top Type
- InGaAlP Technology (Ultra High Brightness)
- Low Drive Current
- High Intensity Light Emission
- Clear Luminescence is obtained
- High Operating Temperature
- Standard Embossed Taping 8 mm Pitch : T10 (500 pcs/reel)
- Reflow Soldering is possible

### Applications

- Automotive Use
- Message Signboard
- Backlight



### Series Line-Up

Part Number	Color	Material
TLOH1102	Ultra Bright Orange	InGaAlP
TLRH1102	Ultra Bright Red	InGaAlP
TLSH1102	Ultra Bright High Efficiency Red	InGaAlP
TLYH1102	Ultra Bright Yellow	InGaAlP

### 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>
TLOH1102	50	4	125.00	-40 ~ 100	-40 ~ 100
TLRH1102	50	4	125.00	-40 ~ 100	-40 ~ 100
TLSH1102	50	4	125.00	-40 ~ 100	-40 ~ 100
TLYH1102	50	4	125.00	-40 ~ 100	-40 ~ 100
Unit	mA	V	mW	°C	°C

**Company Headquarters**  
 120 Broadway  
 Menands, New York 12204  
 Toll Free: 800.984.5337  
 Fax: 518.432.7454



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

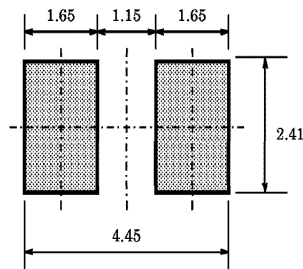
**West Coast Sales Office**  
 950 South Coast Drive, Suite 265  
 Costa Mesa, California 92626  
 Toll Free: 800.984.5337  
 Fax: 714.850.9314

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

Part Number	PWL nm $\lambda_P$	Material	View Angle $2\theta_{1/2}$	Luminous Intensity $I_v$				Forward Voltage $V_F$				Rev Current $I_R$	
				min.	typ.	max.	IF@	min.	typ.	max.	IF@	max.	VR@
TLOH1102	612	InGaAlP	56°	272.00	650.00	–	20mA	–	2.10	2.50	20mA	50	4V
TLRH1102	644	InGaAlP	56°	85.00	320.00	–	20mA	–	1.90	2.50	20mA	50	4V
TLSH1102	623	InGaAlP	56°	153.00	600.00	–	20mA	–	2.10	2.50	20mA	50	4V
TLYH1102	590	InGaAlP	56°	153.00	480.00	–	20mA	–	2.10	2.50	20mA	50	4V
–	nm	–	deg	mcd				–	V		–	$\mu A$	–

### Recommended soldering pattern

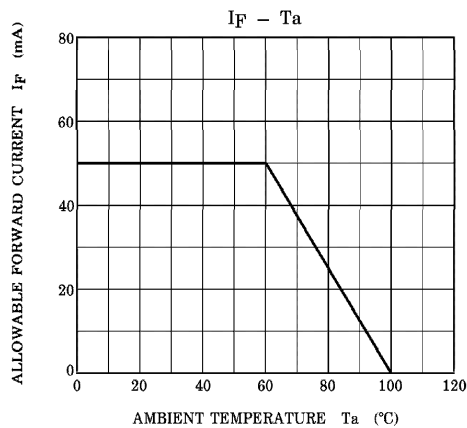
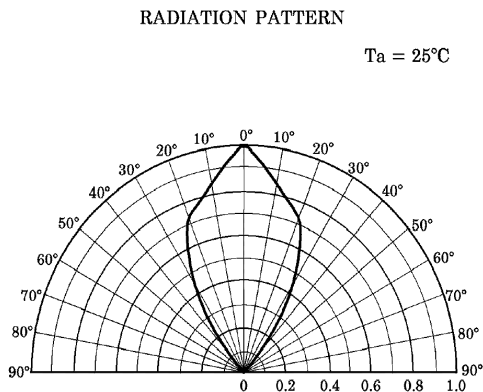
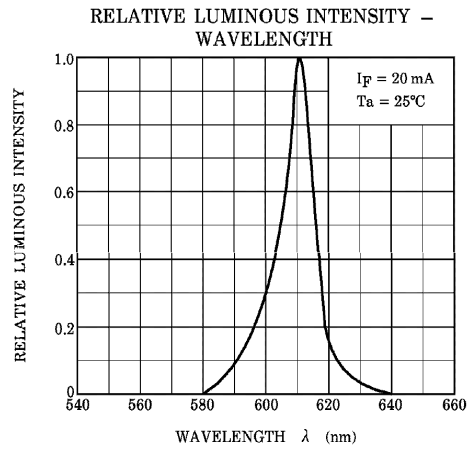
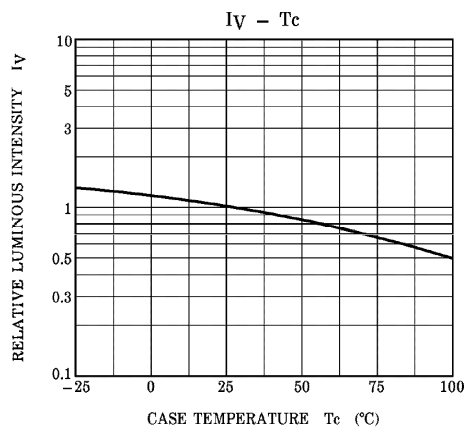
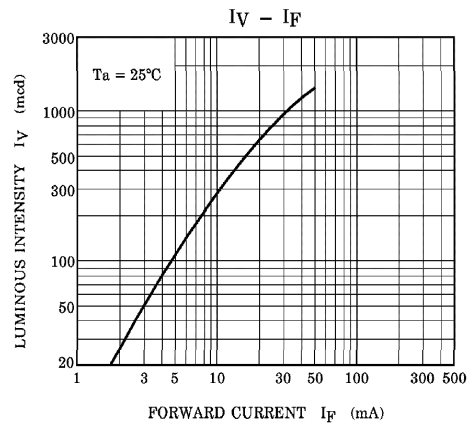
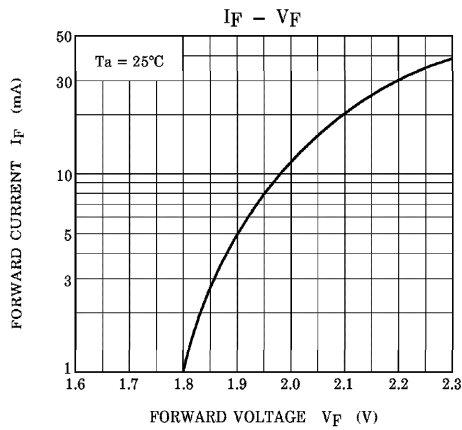
(Unit in mm)



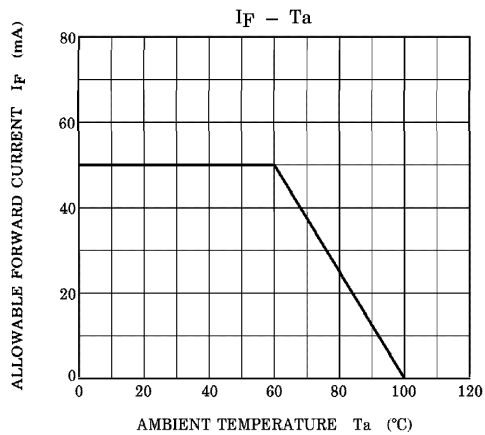
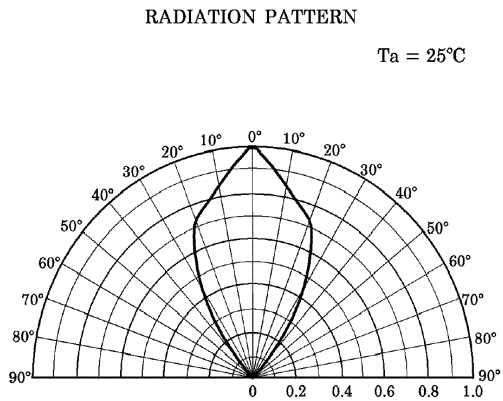
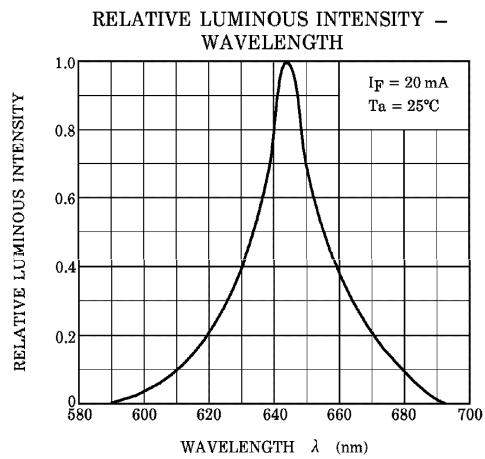
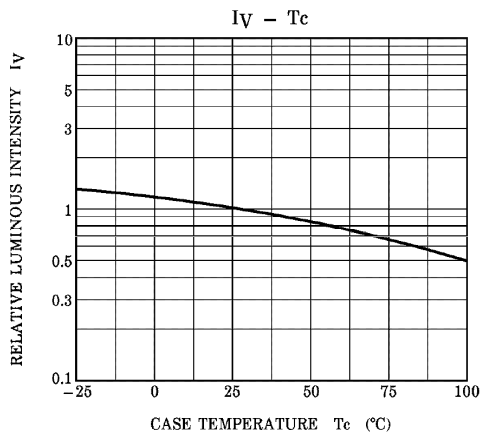
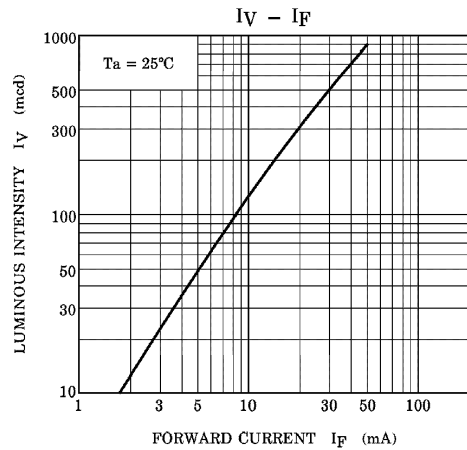
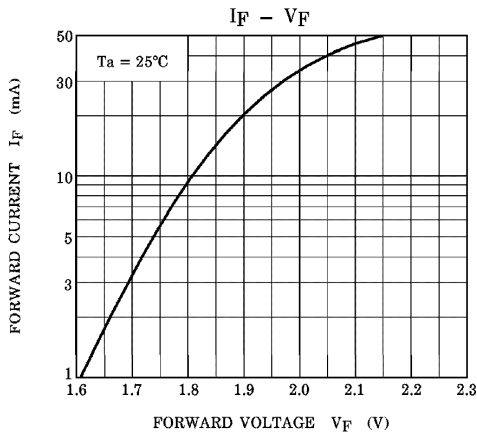
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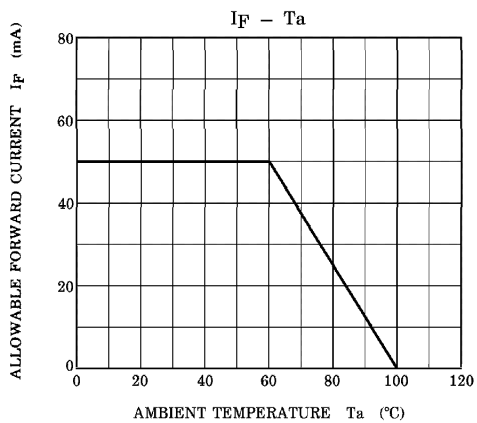
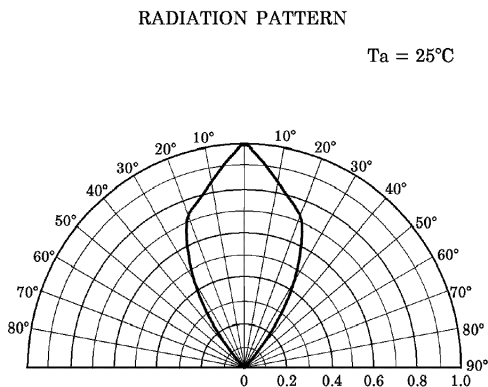
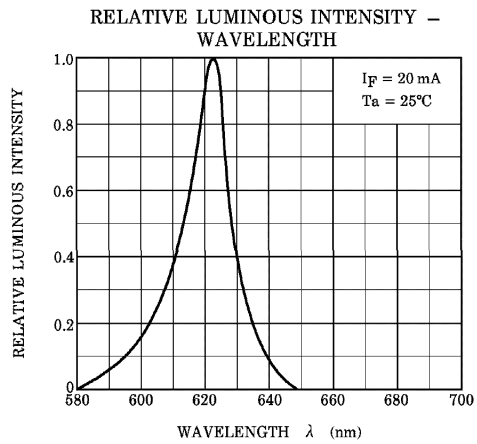
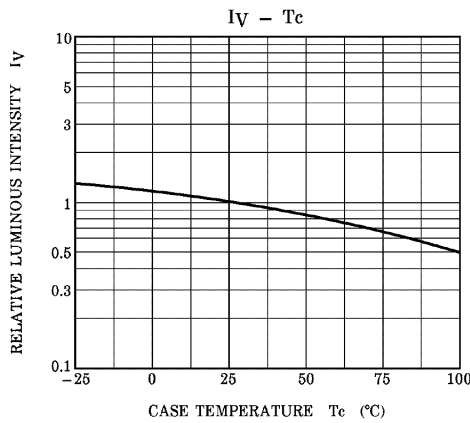
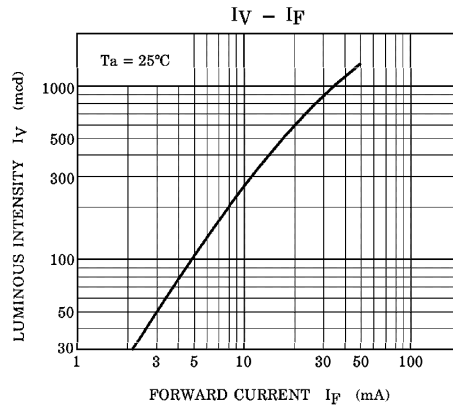
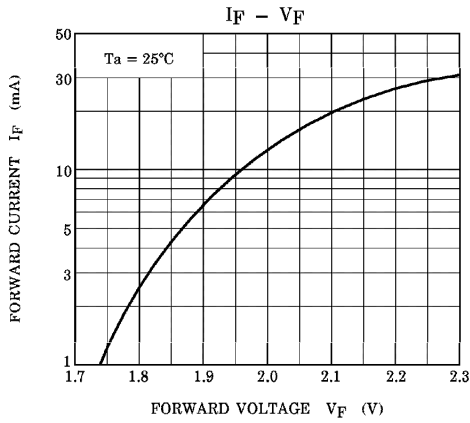
### TLOH1102 Graphs



## TLRH1102 Graphs



### TLSH1102 Graphs



### TLYH1102 Graphs

