

TOSHIBA

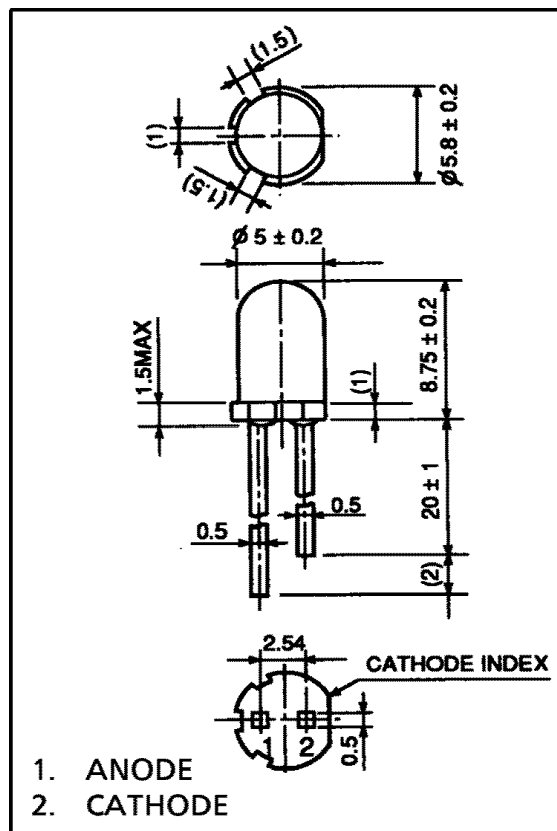
Toshiba TLxH156 Series LEDs

Features

5 mm Package
InGaAlP Technology
All Plastic Mold Type
Fast Response Time, Capable of Pulse Operation
High Power Luminous Intensity

Applications

Outdoor Message Signboard
Safety equipment
Automotive



Series Line-Up

Part Number	Color	Material
TLOH156P	Ultra Bright Orange	InGaAlP
TLRH156P	Ultra Bright Red	InGaAlP
TLRMH156P	Ultra High Efficiency Red	InGaAlP
TLSH156P	Ultra Bright High Efficiency Red	InGaAlP
TLYH156P	Ultra Bright Yellow	InGaAlP

Maximum Ratings (Ta=25°C)

Part Number	Forward Current I _F	Reverse Voltage V _R	Power Dissipation P _D	Operating Temperature T _{opr}	Storage Temperature T _{stg}
TLOH156P	50	4	125.00	-30 ~ 85	-40 ~ 120
TLRH156P	50	4	125.00	-30 ~ 85	-40 ~ 120
TLRMH156P	50	4	125.00	-40 ~ 100	-40 ~ 120
TLSH156P	50	4	125.00	-30 ~ 85	-40 ~ 120
TLYH156P	50	4	125.00	-30 ~ 85	-40 ~ 120
Unit	mA	V	mW	°C	°C

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Electrical and Optical Characteristics (Ta=25°C)

Part Number	PWL nm λ_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@
TLOH156P	612	InGaAlP	30°	476.00	1500.00	–	20mA	–	2.10	2.50	20mA	50	4V
TLRH156P	644	InGaAlP	30°	272.00	800.00	–	20mA	–	1.90	2.50	20mA	50	4V
TLRMH156P	636	InGaAlP	25°	476.00	900.00	–	20mA	–	2.05	2.50	20mA	50	4V
TLSH156P	623	InGaAlP	30°	476.00	1400.00	–	20mA	–	2.10	2.50	20mA	50	4V
TLYH156P	590	InGaAlP	30°	476.00	1400.00	–	20mA	–	2.10	2.50	20mA	50	4V
–	nm	–	deg	mcd				V				μA	–

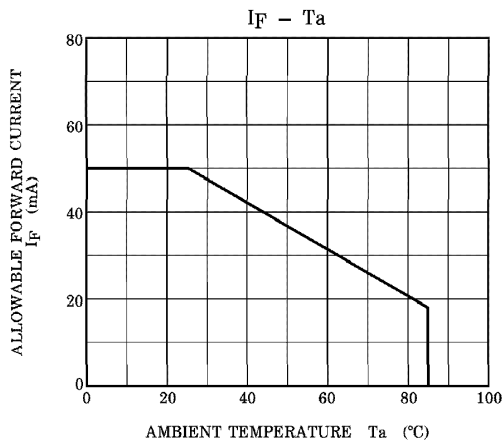
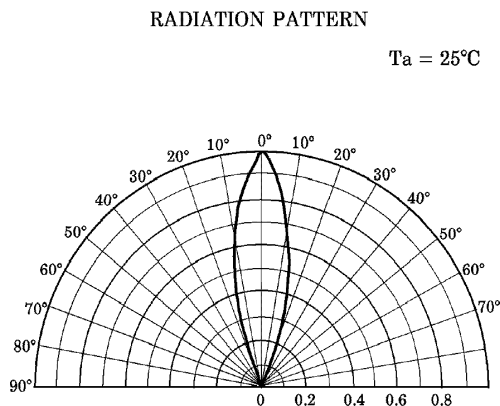
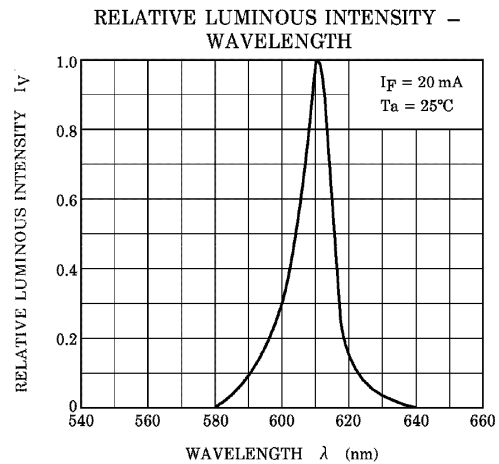
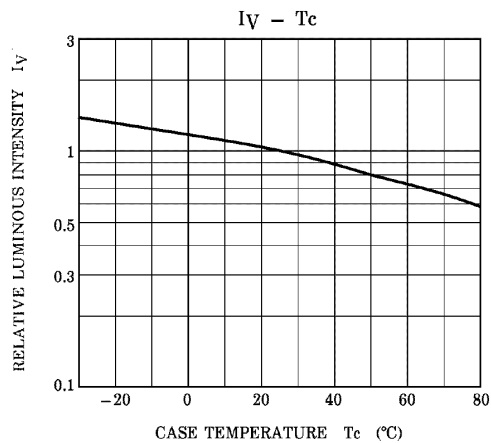
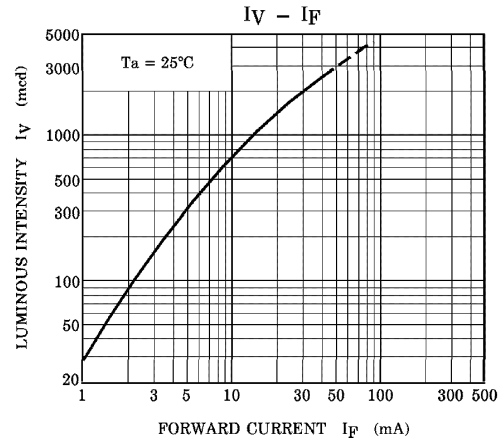
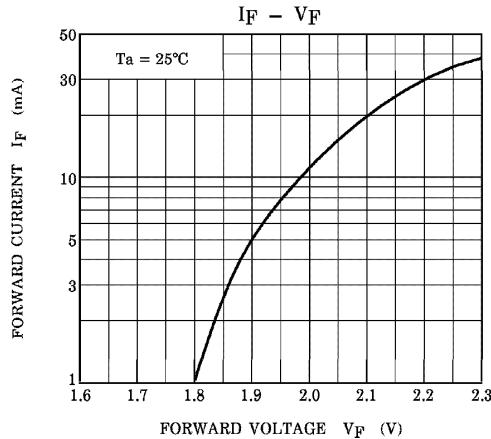
Precautions

- Soldering temperature: 260°C max, soldering time: 3 s max (soldering portion of lead: up to 2 mm from the body of the device).
- If the lead is formed, the lead should be formed up to 5 mm from the body 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.

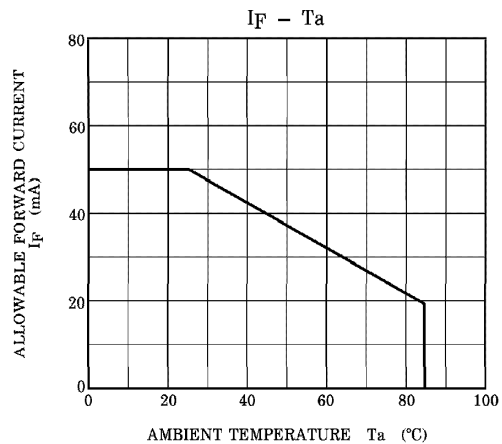
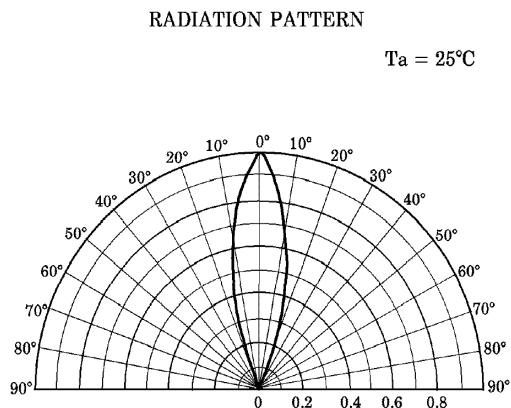
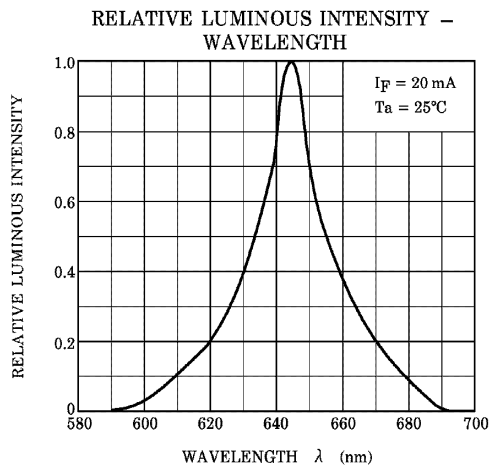
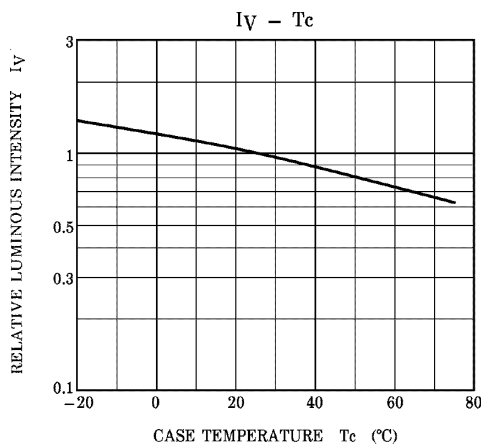
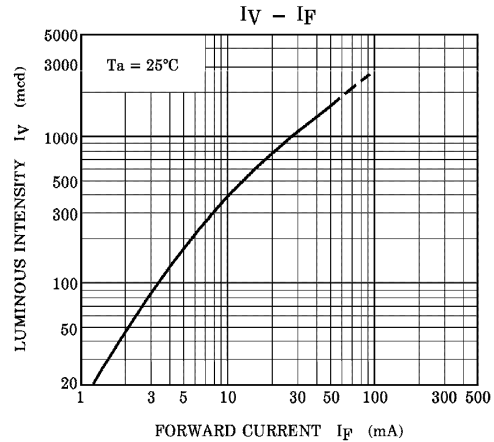
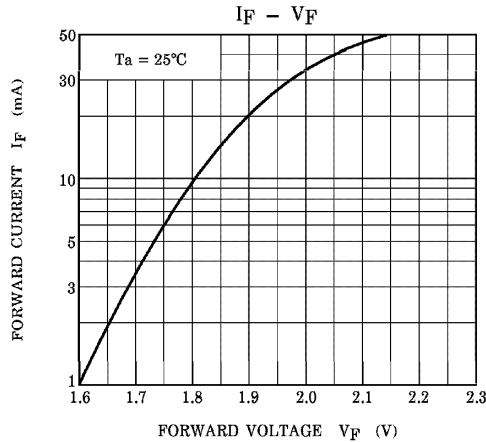
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- In developing your designs, please ensure that TOSHIBA products are used within specified operating ranges as set forth in the most recent TOSHIBA products specifications. Also, please keep in mind the precautions and conditions set forth in the "Handling Guide for Semiconductor Devices," or "TOSHIBA Semiconductor Reliability Handbook" etc..
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- Gallium arsenide (GaAs) is a substance used in the products described in this document. GaAs dust and fumes are toxic. Do not break, cut or pulverize the product, or use chemicals to dissolve them. When disposing of the products, follow the appropriate regulations. Do not dispose of the products with other industrial waste or with domestic garbage.
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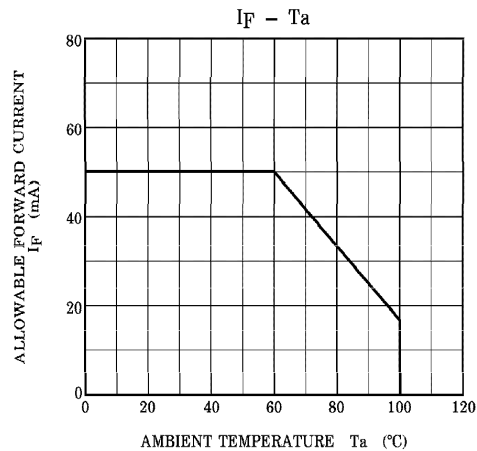
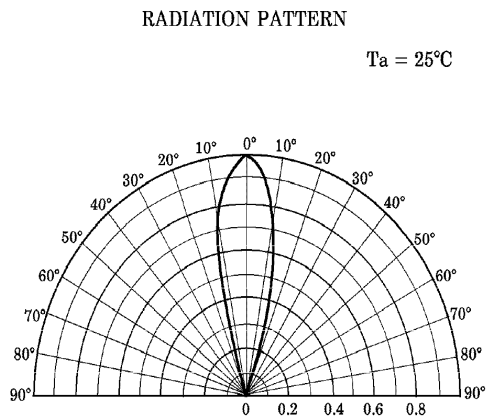
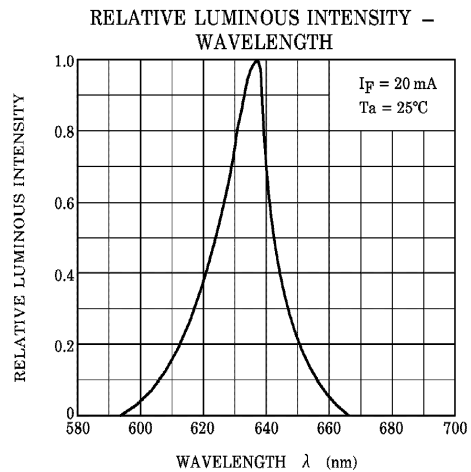
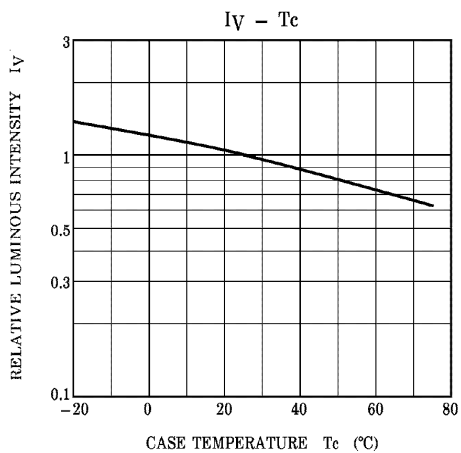
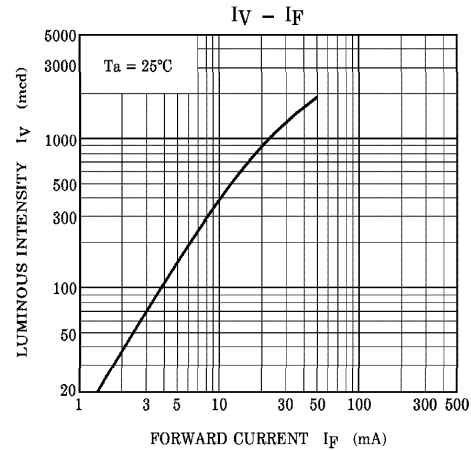
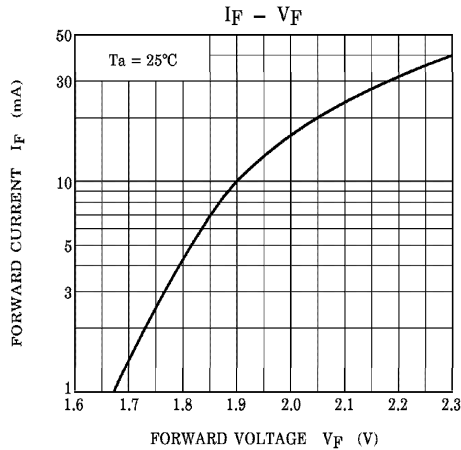
TLOH156P Graphs



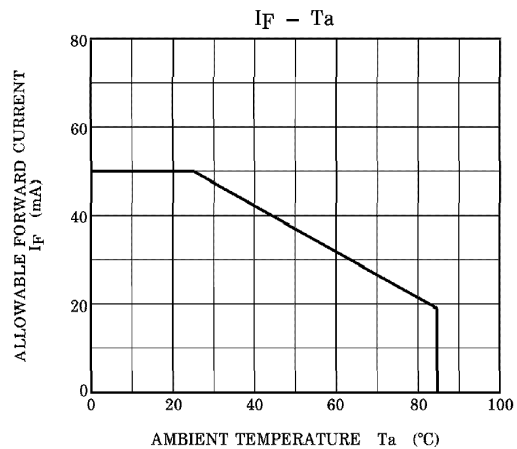
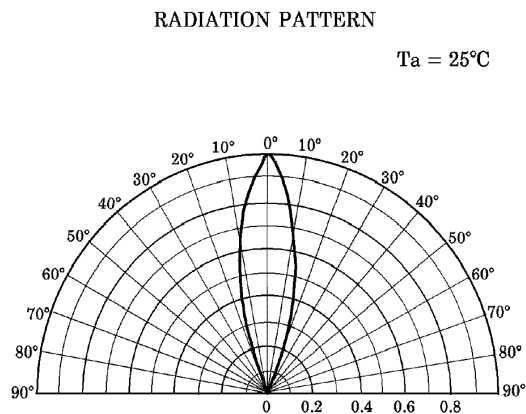
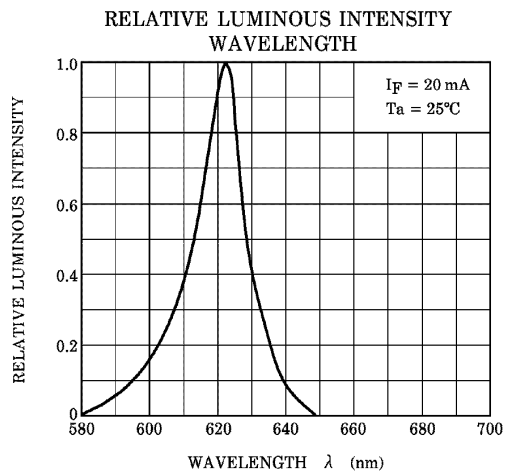
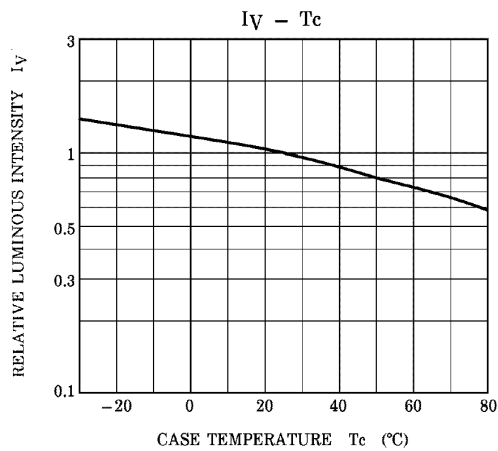
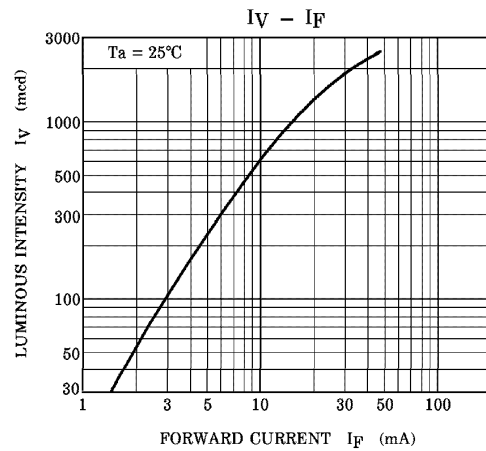
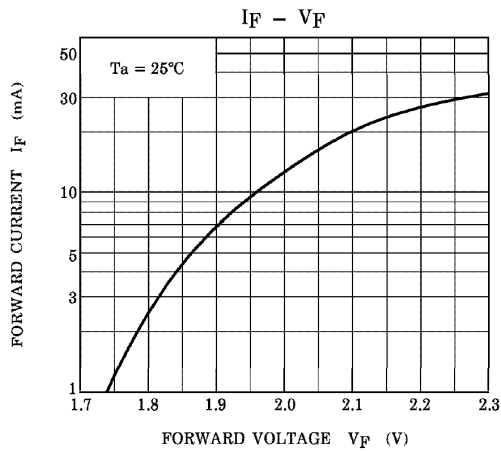
TLRH156P Graphs



TLRMH156P Graphs



TLSH156P Graphs



TLYH156P Graphs

