

TOSHIBA LED LAMP

TLG143, TLG144, TLO143, TLO144, TLPG143, TLPG144, TLPY144, TLR140
 TLR143, TLR144, TLR146, TLS143, TLS144, TLUG143, TLUG144, TLUR143
 TLUR144, TLUY143, TLUY144, TLY143, TLY144

PANEL CIRCUIT INDICATOR

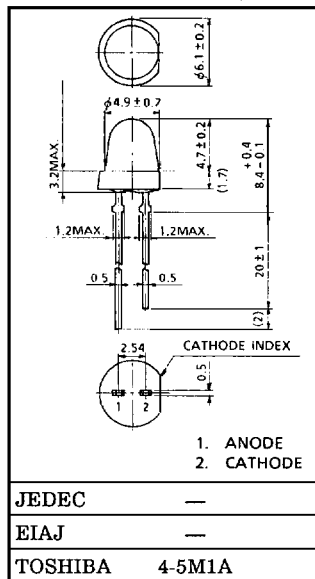
Unit in mm

- All Plastic Mold Type
 - TLR140 : Colorless Transparent Lens
 - TL□143 : Colored Transparent Lens
 - TL□144 : Colored Diffused Lens
 - TLR146 : Milky Diffused Lens
- Low Drive Current, High Intensity Light Emission.

Recommended Forward Current : $I_f = 15 \sim 20 \text{mA}$ (DC)
- All Plastic Molded Lens, Provides an Excellent ON-OFF Contrast Ratio.
- Fast Response Time, Capable of Pulse Operation.

MATERIALS

PRODUCT NAME	MATERIALS	LIGHT EMITTING COLOR
TLPG143 / TLPG144	GaP	Pure Green
TLG143 / TLG144	GaP	Green
TLUG143 / TLUG144	GaP	
TLPY144	GaP	Pure Yellow
TLY143 / TLY144	GaAsP	Yellow
TLUY143 / TLUY144	GaAsP	
TLO143 / TLO144	GaAsP	Orange
TLS143 / TLS144	GaAsP	Red
TLUR143 / TLUR144	GaAlAs	
TLR140 / TLR143	GaP	
TLR144 / TLR146		



Weight : 0.23g

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MAXIMUM RATINGS (Ta = 25°C)

PRODUCT NAME	FORWARD CURRENT I _F (mA)	REVERSE VOLTAGE V _R (V)	POWER DISSIPATION P _D (mW)	OPERATING TEMPERATURE RANGE T _{opr} (°C)	STORAGE TEMPERATURE RANGE T _{stg} (°C)
T LPG143 / T LPG144	25	4	70	-20~75	-30~100
T LG143 / T LG144	25	4	70	-20~75	-30~100
T LUG143 / T LUG144	25	4	70	-20~75	-30~100
T LPY144	25	4	70	-20~75	-30~100
T LY143 / T LY144	25	4	70	-20~75	-30~100
T LUY143 / T LUY144	25	4	70	-20~75	-30~100
T LO143 / T LO144	25	4	70	-20~75	-30~100
T LS143 / T LS144	25	4	70	-20~75	-30~100
T LUR143 / T LUR144	25	4	55	-20~75	-30~100
T LR140 / T LR143	25	4	70	-20~75	-30~100
T LR144 / T LR146					

ELECTRO-OPTICAL CHARACTERISTICS (Ta = 25°C)
143 SERIES (Colored transparent lens)

PRODUCT NAME	EMISSION SPECTRUM			LUMINOUS INTENSITY I _V			FORWARD VOLTAGE V _F			REVERSE CURRENT I _R	
	λ _p	Δλ	I _F	MIN.	TYP.	I _F	TYP.	MAX.	I _F	MAX.	V _R
TLPG143	555	20	15	5.0	20	15	2.15	2.8	20	5	4
TLG143	565	25	15	10	40	15	2.15	2.8	20	5	4
TLUG143	565	25	15	30	60	15	2.15	2.8	20	5	4
TLY143	585	32	15	10	40	15	2.05	2.8	20	100	4
TLUY143	585	32	15	30	60	15	2.05	2.8	20	100	4
TLO143	610	35	15	10	40	15	2.05	2.8	20	100	4
TLS143	635	40	15	10	50	15	2.05	2.8	20	100	4
TLUR143	660	25	15	30	100	15	1.75	2.2	20	100	4
TLR143	700	100	15	3.0	11	15	2.15	2.8	20	5	4
Unit	nm		mA	mcd		mA	V		mA	μA	V

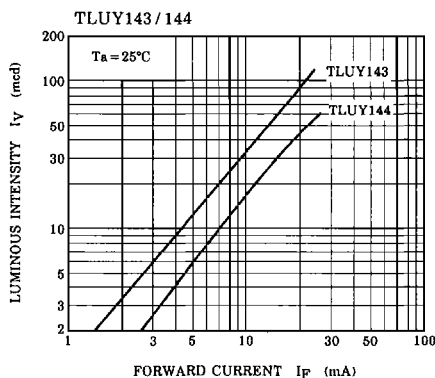
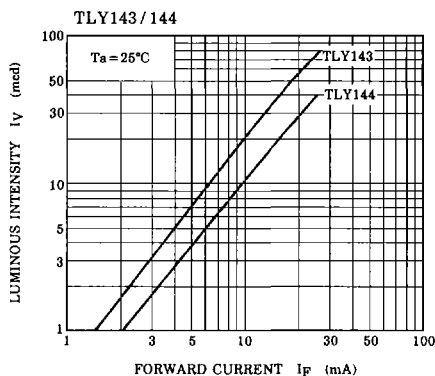
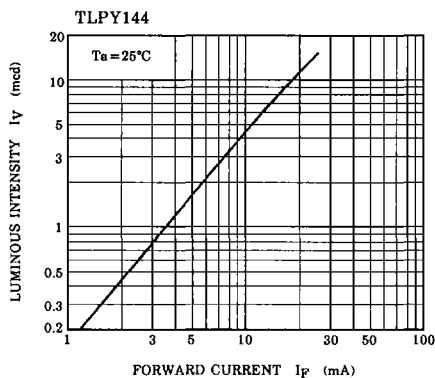
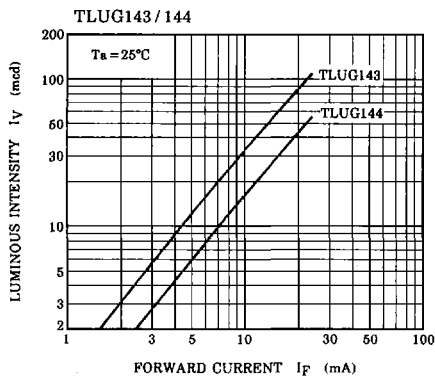
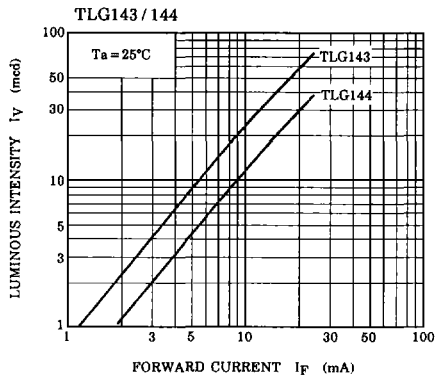
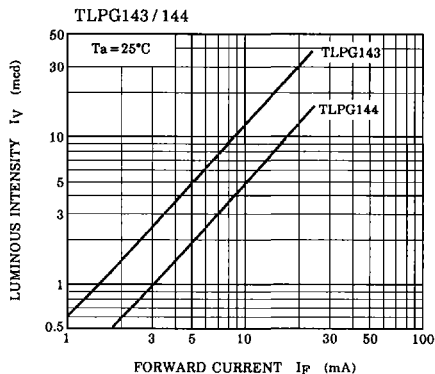
144 SERIES (Colored diffused lens)

PRODUCT NAME	EMISSION SPECTRUM			LUMINOUS INTENSITY I _V			FORWARD VOLTAGE V _F			REVERSE CURRENT I _R	
	λ _p	Δλ	I _F	MIN.	TYP.	I _F	TYP.	MAX.	I _F	MAX.	V _R
TLPG144	555	20	15	2.0	8.0	15	2.15	2.8	20	5	4
TLG144	565	25	15	5.0	20	15	2.15	2.8	20	5	4
TLUG144	565	25	15	10	30	15	2.15	2.8	20	5	4
TLPY144	570	25	15	3.0	8.0	15	2.15	2.8	20	100	4
TLY144	585	32	15	5.0	20	15	2.05	2.8	20	100	4
TLUY144	585	32	15	10	30	15	2.05	2.8	20	100	4
TLO144	610	35	15	5.0	20	15	2.05	2.8	20	100	4
TLS144	635	40	15	5.0	25	15	2.05	2.8	20	100	4
TLUR144	660	25	15	10	50	15	1.75	2.2	20	100	4
TLR144	700	100	15	1.0	3.5	15	2.15	2.8	20	5	4
Unit	nm		mA	mcd		mA	V		mA	μA	V

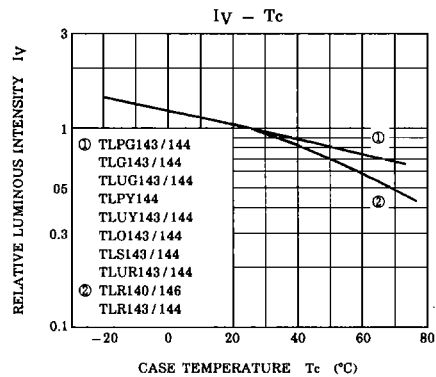
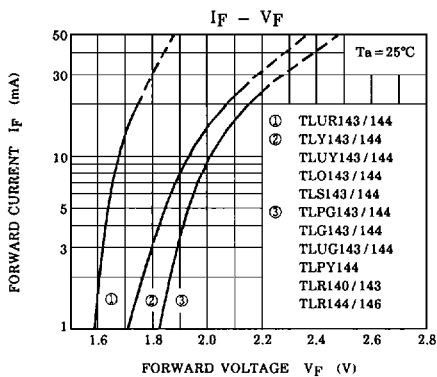
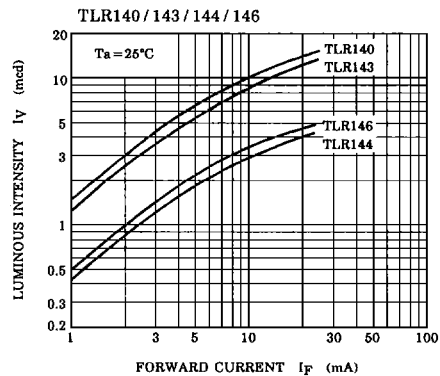
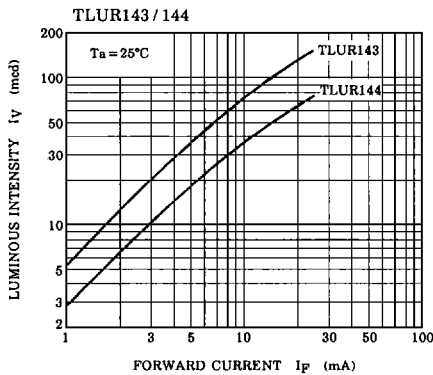
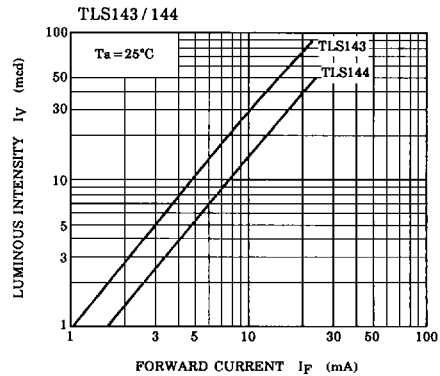
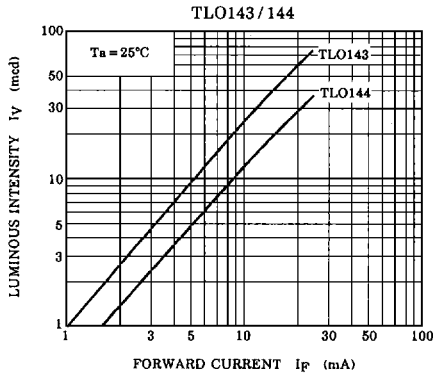
TLR140 / TLR146

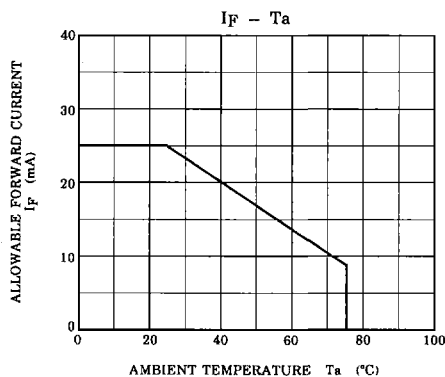
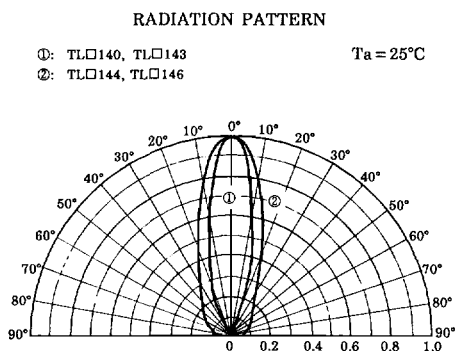
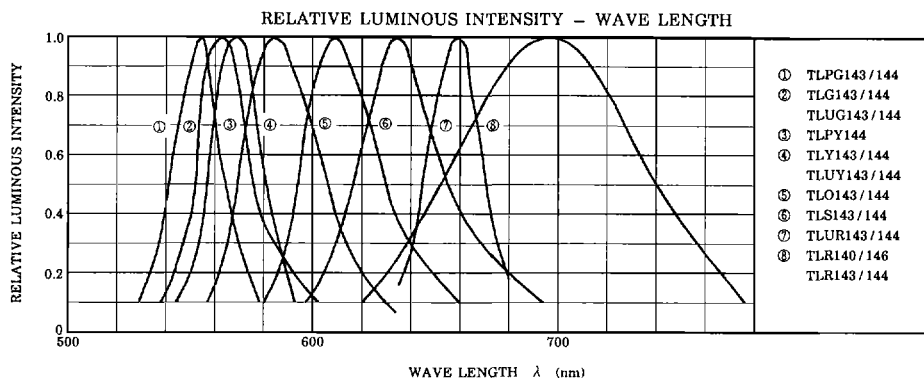
PRODUCT NAME	EMISSION SPECTRUM			LUMINOUS INTENSITY I _V			FORWARD VOLTAGE V _F			REVERSE CURRENT I _R	
	λ _p	Δλ	I _F	MIN.	TYP.	I _F	TYP.	MAX.	I _F	MAX.	V _R
TLR140	700	100	15	3.5	13	15	2.15	2.8	20	5	4
TLR146	700	100	15	1.2	4.0	15	2.15	2.8	20	5	4
Unit	nm		mA	mcd		mA	V		mA	μA	V

$I_V - I_F$



$I_v - I_F$





PRECAUTION

Please be careful of the followings.

- Soldering temperature : 260°C MAX. Soldering time : 3s MAX.
 (Soldering portion of lead ; at below from the lead stopper)
- If the lead is formed, the lead should be formed up to 5mm from the body of the device without forming stress to the resin. Soldering should be performed after lead forming.