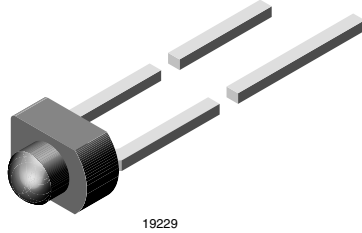


Universal LED, \varnothing 1.8 mm Tinted Diffused Miniplast Package



FEATURES

- Three colors
- For DC and pulse operation
- Luminous intensity categorized
- End-to-end stackable in centre-to-centre spacing of 0.1" (2.54 mm)
- Lead (Pb)-free component
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC



PRODUCT GROUP AND PACKAGE DATA

- Product group: LED
- Package: 1.8 mm (miniplast)
- Product series: standard
- Angle of half intensity: $\pm 20^\circ$

APPLICATIONS

- General indicating and lighting purposes

PARTS TABLE

PART	COLOR, LUMINOUS INTENSITY	TECHNOLOGY
TLUO2400	Red, $I_V > 1.6$ mcd	GaAsP on GaP
TLUO2401	Red, $I_V = (4 \text{ to } 20)$ mcd	GaAsP on GaP
TLUY2400	Yellow, $I_V > 1$ mcd	GaAsP on GaP
TLUY2401	Yellow, $I_V = (2.5 \text{ to } 12.5)$ mcd	GaAsP on GaP
TLUG2400	Green, $I_V > 1.6$ mcd	GaP on GaP
TLUG2401	Green, $I_V = (4 \text{ to } 20)$ mcd	GaP on GaP

ABSOLUTE MAXIMUM RATINGS¹⁾ TLUO240., TLUY240., TLUG240.

PARAMETER	TEST CONDITION	PART	SYMBOL	VALUE	UNIT
Reverse voltage			V_R	6	V
DC Forward current		TLUO2400	I_F	30	mA
		TLUY2400	I_F	30	mA
		TLUG2400	I_F	30	mA
Surge forward current	$t_p \leq 10 \mu\text{s}$		I_{FSM}	1	A
Power dissipation	$T_{amb} \leq 55^\circ\text{C}$	TLUO2400	P_V	100	mW
		TLUY2400	P_V	100	mW
		TLUG2400	P_V	100	mW
Junction temperature			T_j	100	$^\circ\text{C}$
Operating temperature range			T_{amb}	- 40 to + 100	$^\circ\text{C}$
Storage temperature range			T_{stg}	- 55 to + 100	$^\circ\text{C}$
Soldering temperature	$t \leq 3$ s, 2 mm from body		T_{sd}	260	$^\circ\text{C}$
	$t \leq 5$ s, 4 mm from body		T_{sd}	260	$^\circ\text{C}$
Thermal resistance junction/ambient		TLUO2400	R_{thJA}	450	K/W
		TLUY2400	R_{thJA}	450	K/W
		TLUG2400	R_{thJA}	450	K/W

Note:

¹⁾ $T_{amb} = 25^\circ\text{C}$, unless otherwise specified

OPTICAL AND ELECTRICAL CHARACTERISTICS ¹⁾ TLUO240., RED							
PARAMETER	TEST CONDITION	PART	SYMBOL	MIN	TYP.	MAX	UNIT
Luminous intensity ²⁾	$I_F = 10 \text{ mA}$	TLUO2400	I_V	1.6	2		mcd
		TLUO2401	I_V	4	5	20	mcd
Dominant wavelength	$I_F = 10 \text{ mA}$		λ_d	612		625	nm
Peak wavelength	$I_F = 10 \text{ mA}$		λ_p		630		nm
Angle of half intensity	$I_F = 10 \text{ mA}$		φ		± 20		deg
Forward voltage	$I_F = 20 \text{ mA}$		V_F		2	3	V
Reverse voltage	$I_R = 10 \text{ }\mu\text{A}$		V_R	6	15		V
Junction capacitance	$V_R = 0, f = 1 \text{ MHz}$		C_j		50		pF

Note:

¹⁾ $T_{amb} = 25 \text{ }^\circ\text{C}$, unless otherwise specified

²⁾ in one packing unit $I_{Vmin}/I_{Vmax} \leq 0.5$

OPTICAL AND ELECTRICAL CHARACTERISTICS ¹⁾ TLUY240., YELLOW							
PARAMETER	TEST CONDITION	PART	SYMBOL	MIN	TYP.	MAX	UNIT
Luminous intensity ²⁾	$I_F = 10 \text{ mA}$	TLUY2400	I_V	1	4		mcd
		TLUY2401	I_V	2.5	8	12.5	mcd
Dominant wavelength	$I_F = 10 \text{ mA}$		λ_d	581		594	nm
Peak wavelength	$I_F = 10 \text{ mA}$		λ_p		585		nm
Angle of half intensity	$I_F = 10 \text{ mA}$		φ		± 20		deg
Forward voltage	$I_F = 20 \text{ mA}$		V_F		2.4	3	V
Reverse voltage	$I_R = 10 \text{ }\mu\text{A}$		V_R	6	15		V
Junction capacitance	$V_R = 0, f = 1 \text{ MHz}$		C_j		50		pF

Note:

¹⁾ $T_{amb} = 25 \text{ }^\circ\text{C}$, unless otherwise specified

²⁾ in one packing unit $I_{Vmin}/I_{Vmax} \leq 0.5$

OPTICAL AND ELECTRICAL CHARACTERISTICS ¹⁾ TLUG240., GREEN							
PARAMETER	TEST CONDITION	PART	SYMBOL	MIN	TYP.	MAX	UNIT
Luminous intensity ²⁾	$I_F = 10 \text{ mA}$	TLUG2400	I_V	1.6	5		mcd
		TLUG2401	I_V	4	12	20	mcd
Dominant wavelength	$I_F = 10 \text{ mA}$		λ_d	562		575	nm
Peak wavelength	$I_F = 10 \text{ mA}$		λ_p		565		nm
Angle of half intensity	$I_F = 10 \text{ mA}$		φ		± 20		deg
Forward voltage	$I_F = 20 \text{ mA}$		V_F		2.4	3	V
Reverse voltage	$I_R = 10 \text{ }\mu\text{A}$		V_R	6	15		V
Junction capacitance	$V_R = 0, f = 1 \text{ MHz}$		C_j		50		pF

Note:

¹⁾ $T_{amb} = 25 \text{ }^\circ\text{C}$, unless otherwise specified

²⁾ in one packing unit $I_{Vmin}/I_{Vmax} \leq 0.5$

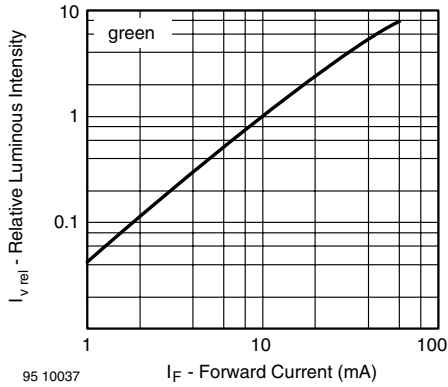


Figure 19. Relative Luminous Intensity vs. Forward Current

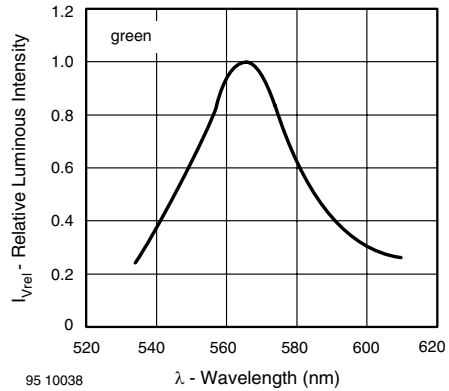


Figure 20. Relative Intensity vs. Wavelength

PACKAGE DIMENSIONS in millimeters

