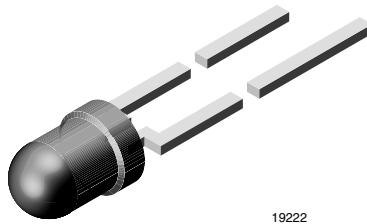


High Intensity LED in Ø 3 mm Tinted Diffused Package



19222

DESCRIPTION

This device has been designed to meet the increasing demand for AlInGaP technology.

It is housed in a 3 mm clear plastic package. The wide viewing angle of these devices provides a high on-off contrast.

All packing units are categorized in luminous intensity groups. That allows users to assemble LEDs with uniform appearance.

PRODUCT GROUP AND PACKAGE DATA

- Product group: LED
- Package: 3 mm
- Product series: standard
- Angle of half intensity: $\pm 60^\circ$

FEATURES

- AlInGaP technology
- Standard Ø 3 mm (T-1) package
- Small mechanical tolerances
- Suitable for DC and high peak current
- Very wide viewing angle
- Luminous intensity categorized
- Lead (Pb)-free device

APPLICATIONS

- Status lights
- OFF/ON indicator
- Background illumination
- Readout lights
- Maintenance lights
- Legend light

PARTS TABLE

PART	COLOR, LUMINOUS INTENSITY	TECHNOLOGY
TLHK4600	Red, $I_V > 6.3$ mcd	AlInGaP on GaAs

ABSOLUTE MAXIMUM RATINGS¹⁾ TLHK4600

PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Reverse voltage		V_R	5	V
DC Forward current	$T_{amb} \leq 60$ °C	I_F	30	mA
Surge forward current	$t_p \leq 10$ µs	I_{FSM}	0.1	A
Power dissipation	$T_{amb} \leq 60$ °C	P_V	80	mW
Junction temperature		T_j	100	°C
Operating temperature range		T_{amb}	- 40 to + 100	°C
Storage temperature range		T_{stg}	- 55 to + 100	°C
Soldering temperature	$t \leq 5$ s, 2 mm from body	T_{sd}	260	°C
Thermal resistance junction/ambient		R_{thJA}	400	K/W

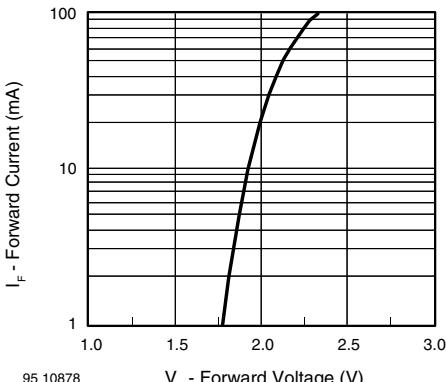
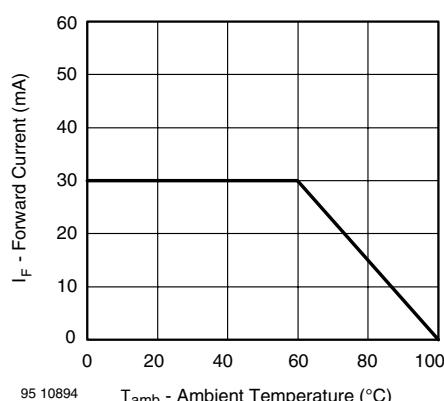
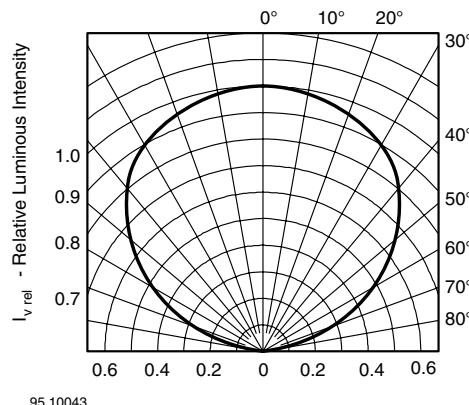
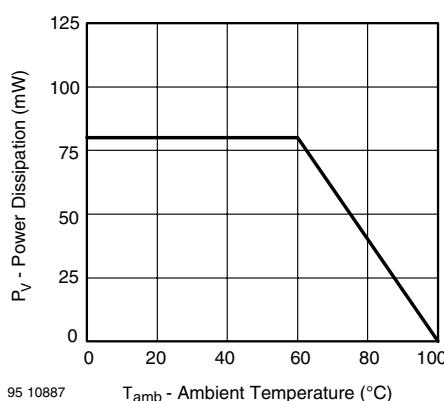
Note:

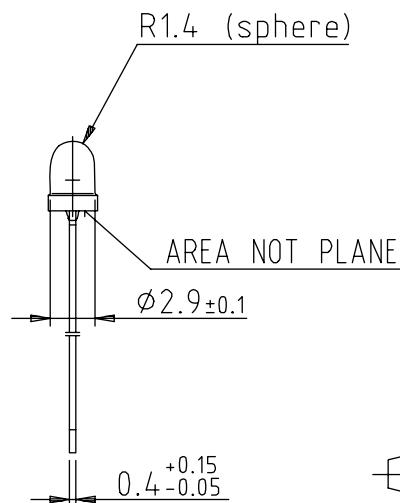
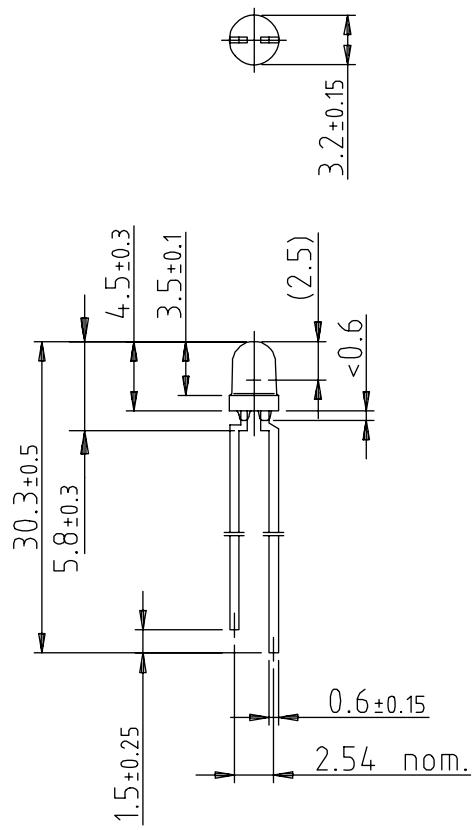
¹⁾ $T_{amb} = 25$ °C, unless otherwise specified

OPTICAL AND ELECTRICAL CHARACTERISTICS¹⁾ TLHK4600, RED

PARAMETER	TEST CONDITION	SYMBOL	MIN	TYP.	MAX	UNIT
Luminous intensity ²⁾	$I_F = 10 \text{ mA}$	I_V	6.3	15		mcd
Dominant wavelength	$I_F = 10 \text{ mA}$	λ_d		630		nm
Peak wavelength	$I_F = 10 \text{ mA}$	λ_p		643		nm
Angle of half intensity	$I_F = 10 \text{ mA}$	φ		± 60		deg
Forward voltage	$I_F = 20 \text{ mA}$	V_F		1.9	2.6	V
Junction capacitance	$V_R = 0, f = 1 \text{ MHz}$	C_j		15		pF
Reverse voltage	$I_R = 10 \mu\text{A}$	V_R	5			V

Note:

1) $T_{amb} = 25^\circ\text{C}$, unless otherwise specified2) in one packing unit $I_{Vmin}/I_{Vmax} \leq 0.5$
TYPICAL CHARACTERISTICS
 $T_{amb} = 25^\circ\text{C}$, unless otherwise specified

PACKAGE DIMENSIONS in millimeters

 
technical drawings
according to DIN
specifications

95 10951