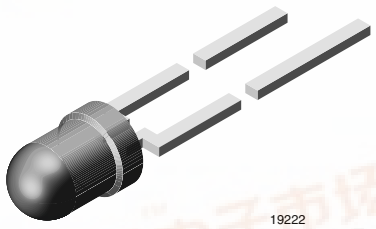
High Intensity LED in Ø 3 mm Tinted Diffused Package



FEATURES

- AlInGaP technology
- Standard Ø 3 mm (T-1) package
- Small mechanical tolerances
- Suitable for DC and high peak current
- Wide viewing angle
- Very high intensity
- Luminous intensity and color categorized
- Compliant to RoHS Directive 2002/95/EC and in accordance to WEEE 2002/96/EC

Pb-free

e8

RoHS COMPLIANT

GREEN (5-2008)**

DESCRIPTION

This device has been designed to meet the increasing demand for AlInGaP technology general indicating and lighting purposes.
It is housed in a 3 mm diffused plastic package. The wide viewing angle of these devices provides a high brightness.
All packing units are categorized in luminous intensity and color groups. That allows users to assemble LEDs with uniform appearance.

APPLICATIONS

- Status lights
- Off/ On indicator
- Background illumination
- Readout lights
- Maintenance lights
- Legend light

PRODUCT GROUP AND PACKAGE DATA

- Product group: LED
- Package: 3 mm
- Product series: standard
- Angle of half intensity: ± 30°

PARTS TABLE

PART	COLOR, LUMINOUS INTENSITY	TECHNOLOGY
TLHE44R1S2-26	Yellow, I_V = (112 to 280) mcd	AlInGaP on GaAs

ABSOLUTE MAXIMUM RATINGS (T_{amb} = 25 °C, unless otherwise specified) **TLHE44R1S2-26**

PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Reverse voltage		V_R	5	V
DC Forward current	T_{amb} ≤ 60 °C	I_F	30	mA
Surge forward current	t_p ≤ 10 µs	I_{FSM}	0.1	A
Power dissipation	T_{amb} ≤ 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 ≤ 5 s, 2 mm from body	T_{sd}	260	°C
Thermal resistance junction/ ambient		R_{thJA}	400	K/W

** Please see document “Vishay Material Category Policy”: www.vishay.com/doc?99902

找PDF 鲜一下 pdf.dzsc.com

查询"TLHE44R1S2-26"供应商

OPTICAL AND ELECTRICAL CHARACTERISTICS (T_{amb} = 25 °C, unless otherwise specified)
TLHE44R1S2-26, YELLOW

PARAMETER	TEST CONDITION	SYMBOL	MIN.	TYP.	MAX.	UNIT
Luminous intensity [1]	I_F = 20 mA	I_V	112		280	mcd
Dominant wavelength	I_F = 20 mA	λ_d	583	588	594	nm
Peak wavelength	I_F = 20 mA	λ_p		590		nm
Angle of half intensity	I_F = 20 mA	φ		± 30		deg
Forward voltage	I_F = 20 mA	V_F		1.9	2.6	V
Reverse voltage	I_R = 10 µA	V_R	5			V
Junction capacitance	V_R = 0, f = 1 MHz	C_j		15		pF

Note:
[1] In one packing unit $I_{Vmax.}/I_{Vmin.} \leq 1.6$

LUMINOUS INTENSITY CLASSIFICATION

GROUP	LIGHT INTENSITY (mcd)		
STANDARD	OPTIONAL	MIN.	MAX.
R	1	112	140
	2	140	180
S	1	180	224
	2	224	280

Note:
Luminous intensity is tested at a current pulse duration of 25 ms and an accuracy of ± 11 %.
These type numbers represent the order groups which include only a few brightness groups. Only one group will be shipped on each reel (there will be no mixing of two groups on each reel). In order to ensure availability, single brightness groups are not be orderable.
In a similar manner for colors where wavelength groups are measured and binned, single wavelength groups will be shipped on any one reel.
In order to ensure availability, single wavelength groups are not be orderable.

COLOR CLASSIFICATION

GROUP	YELLLOW	
	DOM. WAVELENGTH (nm)	
	MIN.	MAX.
2	583	586
3	585	588
4	587	590
5	589	592
6	591	594

Note:
Wavelengths are tested at a current pulse duration of 25 ms.

TYPICAL CHARACTERISTICS (T_{amb} = 25 °C, unless otherwise specified)

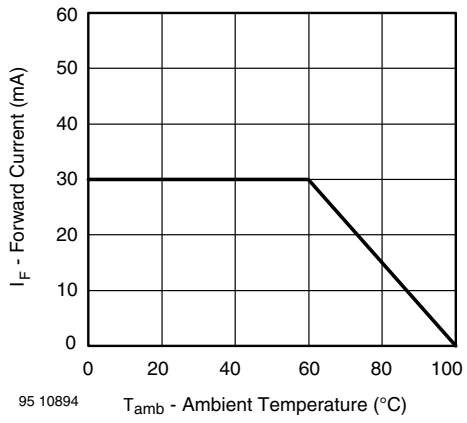


Figure 1. Forward Current vs. Ambient Temperature

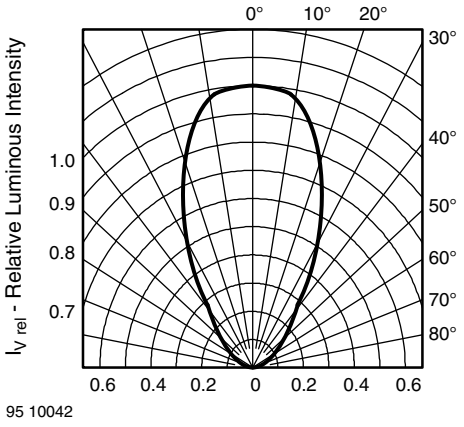


Figure 2. Rel. Luminous Intensity vs. Angular Displacement

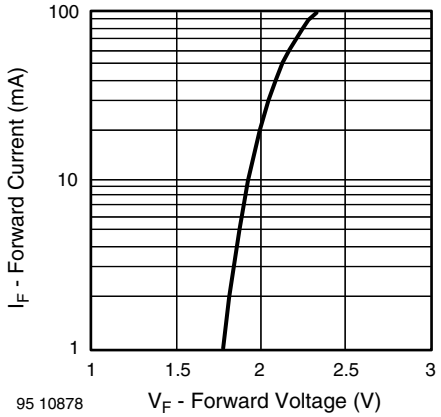


Figure 3. Forward Current vs. Forward Voltage

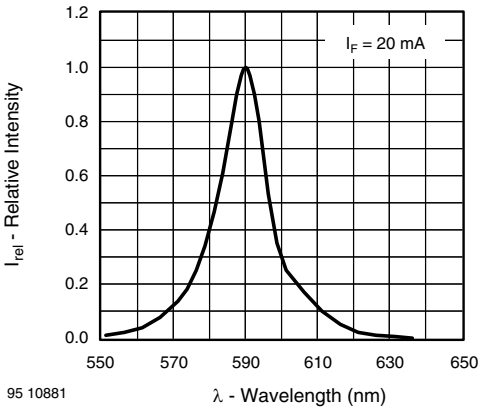


Figure 6. Relative Intensity vs. Wavelength

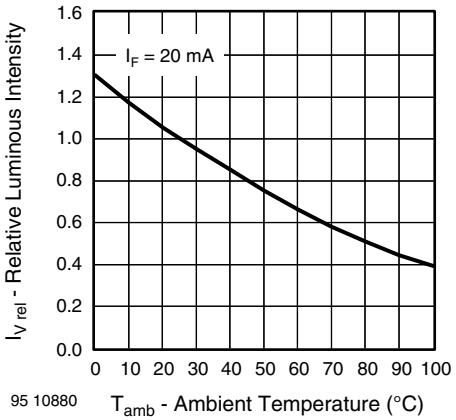


Figure 4. Rel. Luminous Intensity vs. Ambient Temperature

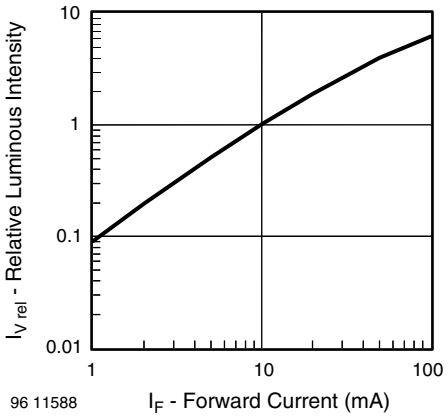
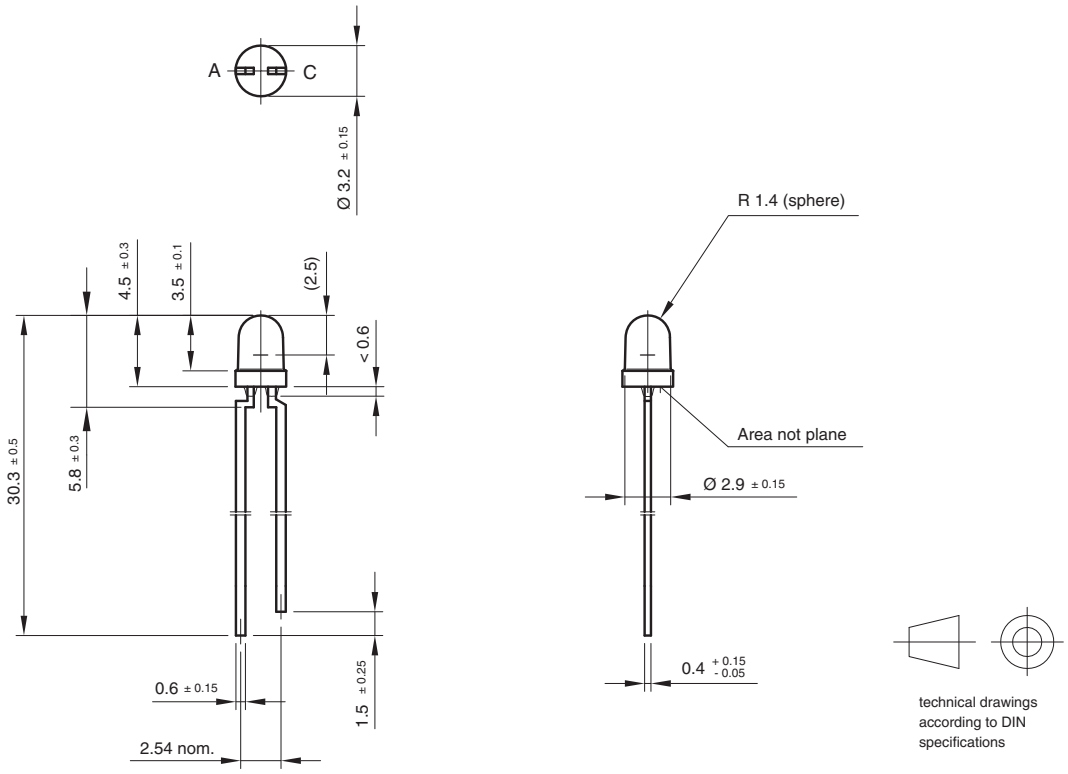


Figure 5. Relative Luminous Intensity vs. Forward Current

查询"TLHE44R1S2-26"供应商

PACKAGE DIMENSIONS in millimeters



Drawing-No.: 6.544-5255.01-4
Issue: 7; 25.09.08
95 10913

Disclaimer

All product specifications and data are subject to change without notice.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, “Vishay”), disclaim any and all liability for any errors, inaccuracies or incompleteness contained herein or in any other disclosure relating to any product.

Vishay disclaims any and all liability arising out of the use or application of any product described herein or of any information provided herein to the maximum extent permitted by law. The product specifications do not expand or otherwise modify Vishay’s terms and conditions of purchase, including but not limited to the warranty expressed therein, which apply to these products.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications unless otherwise expressly indicated. Customers using or selling Vishay products not expressly indicated for use in such applications do so entirely at their own risk and agree to fully indemnify Vishay for any damages arising or resulting from such use or sale. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

Product names and markings noted herein may be trademarks of their respective owners.