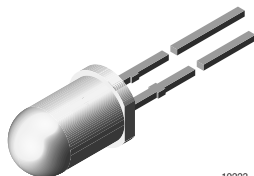


Universal LED in Ø 5 mm Tinted Diffused Package



19223

PRODUCT GROUP AND PACKAGE DATA

- Product group: LED
- Package: 5 mm
- Product series: standard
- Angle of half intensity: $\pm 30^\circ$

FEATURES

- For DC and pulse operation
- Luminous intensity categorized
- Standard T-1 $\frac{3}{4}$ package
- TLUR540. with stand-offs
- Compliant to RoHS directive 2002/95/EC and in accordance to WEEE 2002/96/EC


RoHS
COMPLIANT

APPLICATIONS

- General indicating and lighting purposes

PARTS TABLE

PART	COLOR, LUMINOUS INTENSITY	TECHNOLOGY
TLUR5400	Red, $I_V > 4$ mcd	GaAsP on GaAs
TLUR5400-AS12Z	Red, $I_V > 4$ mcd	GaAsP on GaAs
TLUR5401	Red, $I_V = (4 \text{ to } 32)$ mcd	GaAsP on GaAs

ABSOLUTE MAXIMUM RATINGS ¹⁾ TLUR540.

PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Reverse voltage		V_R	6	V
DC Forward current		I_F	20	mA
Surge forward current	$t_p \leq 10 \mu s$	I_{FSM}	1	A
Power dissipation	$T_{amb} \leq 65^\circ C$	P_V	60	mW
Junction temperature		T_j	100	$^\circ C$
Operating temperature range		T_{amb}	- 40 to + 100	$^\circ C$
Storage temperature range		T_{stg}	- 55 to + 100	$^\circ C$
Soldering temperature	$t \leq 5$ s, 2 mm from body	T_{sd}	260	$^\circ C$
Thermal resistance junction/ambient		R_{thJA}	500	K/W

Note:

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

OPTICAL AND ELECTRICAL CHARACTERISTICS ¹⁾ TLUR540., RED

PARAMETER	TEST CONDITION	PART	SYMBOL	MIN.	TYP.	MAX.	UNIT
Luminous intensity ²⁾	$I_F = 10$ mA	TLUR5400	I_V	4	15		mcd
		TLUR5401	I_V	4	15	32	mcd
Dominant wavelength	$I_F = 10$ mA		λ_d		630		nm
Peak wavelength	$I_F = 10$ mA		λ_p		640		nm
Angle of half intensity	$I_F = 10$ mA		ϕ		± 30		deg
Forward voltage	$I_F = 20$ mA		V_F		2	3	V
Reverse voltage	$I_R = 10 \mu A$		V_R	6	15		V
Junction capacitance	$V_R = 0$, $f = 1$ MHz		C_j		50		pF

Note:

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

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

TYPICAL CHARACTERISTICS

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

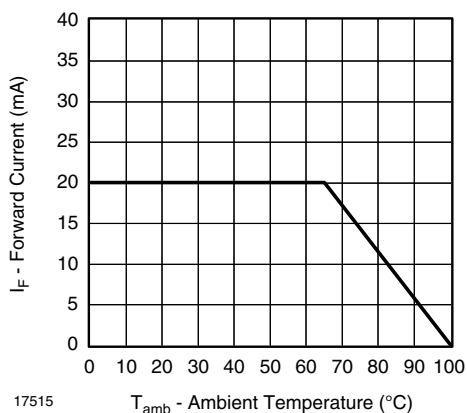


Figure 1. Forward Current vs. Ambient Temperature

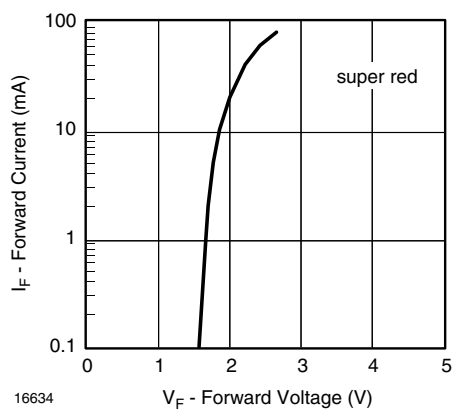


Figure 4. Forward Current vs. Forward Voltage

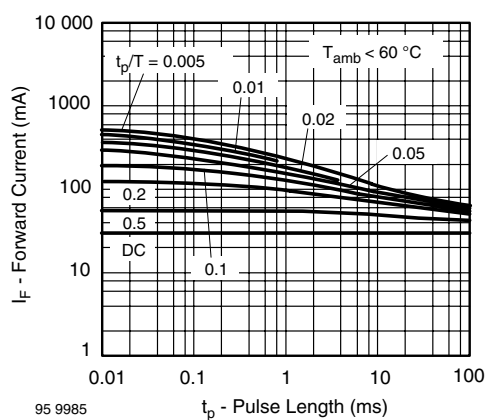


Figure 2. Pulse Forward Current vs. Pulse Duration

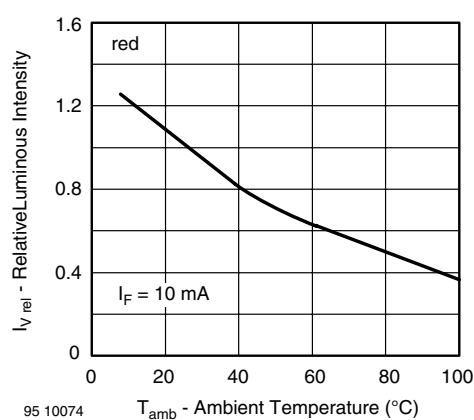


Figure 5. Rel. Luminous Intensity vs. Ambient Temperature

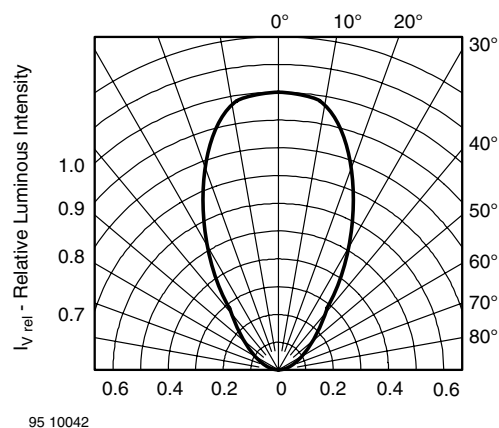


Figure 3. Rel. Luminous Intensity vs. Angular Displacement

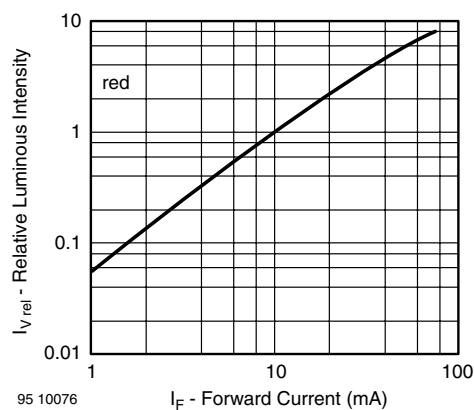


Figure 6. Relative Luminous Intensity vs. Forward Current

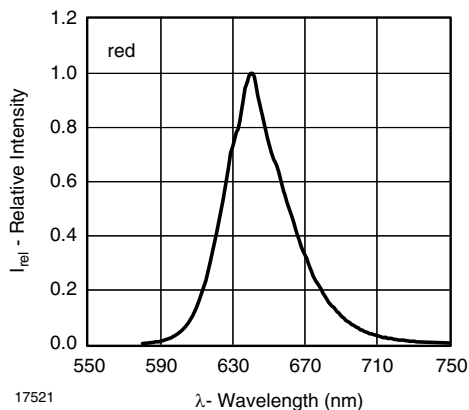
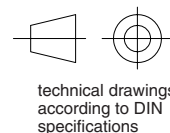
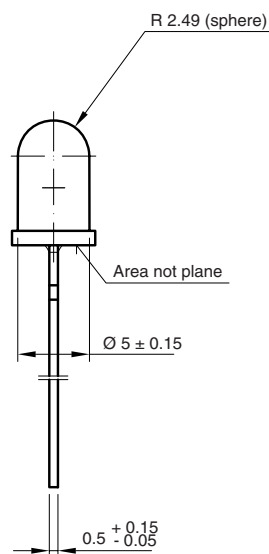
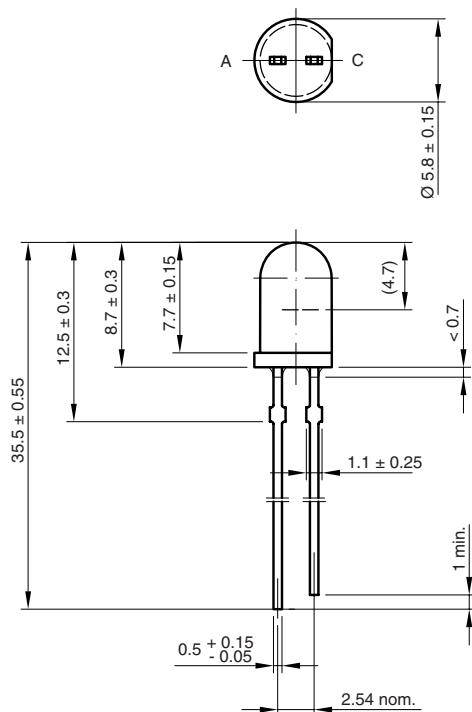


Figure 7. Relative Intensity vs. Wavelength

PACKAGE DIMENSIONS in millimeters



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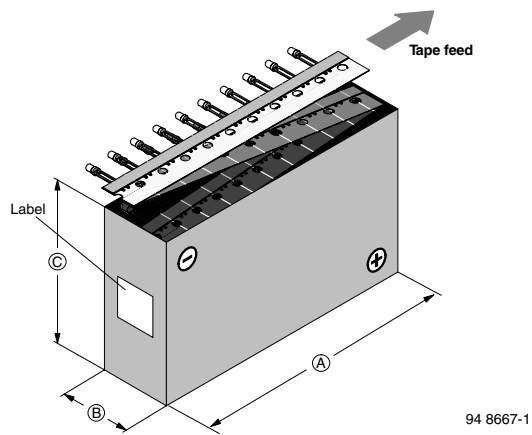
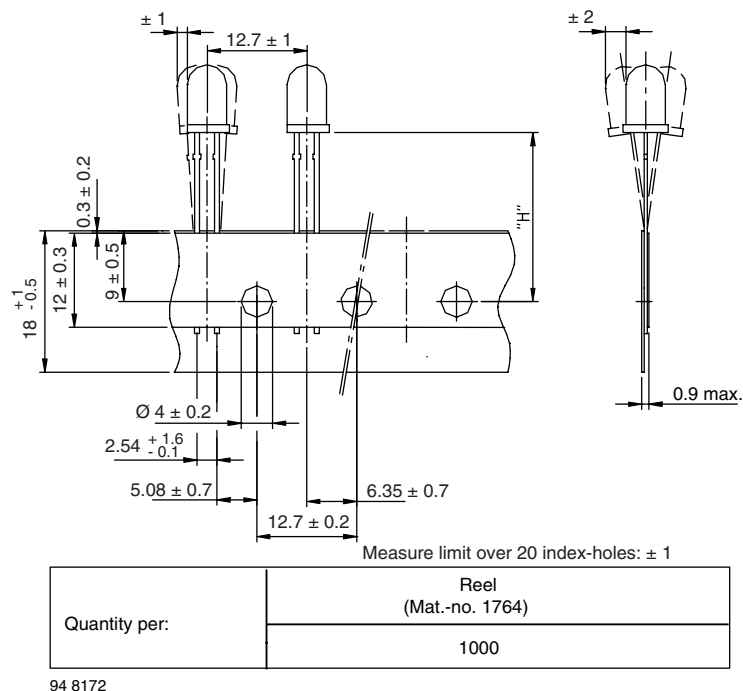


Figure 8. Tape Direction

Note:
AS12Z and AS21Z still valid for already existing types BUT NOT
FOR NEW DESIGN

TAPE DIMENSIONS



Option	Dim. "H" ± 0.5 mm
AS	17.3



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