



Universal LED in Ø 5 mm Tinted Diffused Package



19223

FEATURES

- For DC and pulse operation
- Luminous intensity categorized
- Standard T-1¼ package
- TLUR540. with stand-offs
- Material categorization:
for definitions of compliance please see www.vishay.com/doc?99912



PRODUCT GROUP AND PACKAGE DATA

- Product group: LED
- Package: 5 mm
- Product series: standard
- Angle of half intensity: ± 30°

APPLICATIONS

- General indicating and lighting purposes

PARTS TABLE														
PART	COLOR	LUMINOUS INTENSITY (mcd)			at I _F (mA)	WAVELENGTH (nm)			at I _F (mA)	FORWARD VOLTAGE (V)			at I _F (mA)	TECHNOLOGY
		MIN.	TYP.	MAX.		MIN.	TYP.	MAX.		MIN.	TYP.	MAX.		
TLUR5400	Red	4	15	-	10	-	630	-	10	-	2	3	20	GaAsP on GaAs
TLUR5400-AS12Z ⁽¹⁾	Red	4	15	-	10	-	630	-	10	-	2	3	20	GaAsP on GaAs
TLUR5401	Red	4	15	32	10	-	630	-	10	-	2	3	20	GaAsP on GaAs

Note

⁽¹⁾ Not for new designs

ABSOLUTE MAXIMUM RATINGS (T _{amb} = 25 °C unless otherwise specified) 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 ≤ 10 μs	I _{FSM}	1	A
Power dissipation	T _{amb} ≤ 65 °C	P _V	60	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 to ambient		R _{thJA}	500	K/W

OPTICAL AND ELECTRICAL CHARACTERISTICS ($T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified)							
TLUR540., RED							
PARAMETER	TEST CONDITION	PART	SYMBOL	MIN.	TYP.	MAX.	UNIT
Luminous intensity (I_V)	$I_F = 10\text{ mA}$	TLUR5400	I_V	4	15		mcd
		TLUR5401	I_V	4	15	32	mcd
Dominant wavelength	$I_F = 10\text{ mA}$		λ_d	-	630	-	nm
Peak wavelength	$I_F = 10\text{ mA}$		λ_p	-	640	-	nm
Angle of half intensity	$I_F = 10\text{ mA}$		ϕ	-	± 30	-	$^{\circ}$
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	$V_R = 0\text{ V}$, $f = 1\text{ MHz}$		C_j	-	50	-	pF

Note

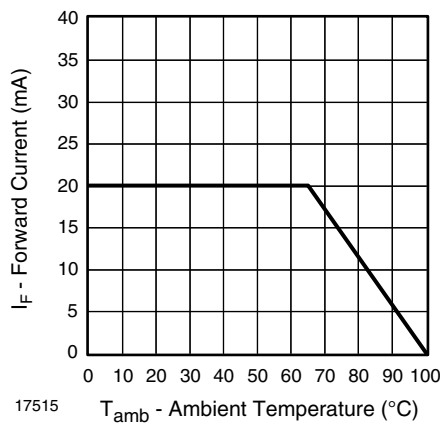
 (1) In one packing unit $I_{Vmin.}/I_{Vmax.} \leq 0.5$
TYPICAL CHARACTERISTICS ($T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified)


Fig. 1 - Forward Current vs. Ambient Temperature

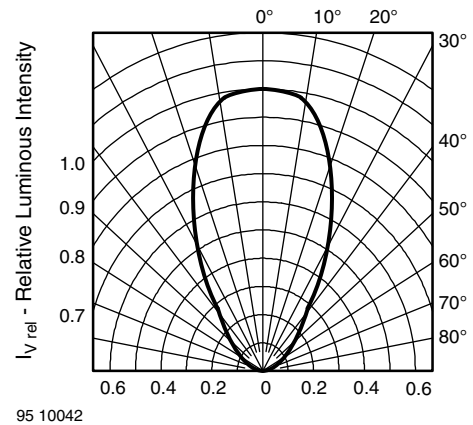


Fig. 3 - Relative Luminous Intensity vs. Angular Displacement

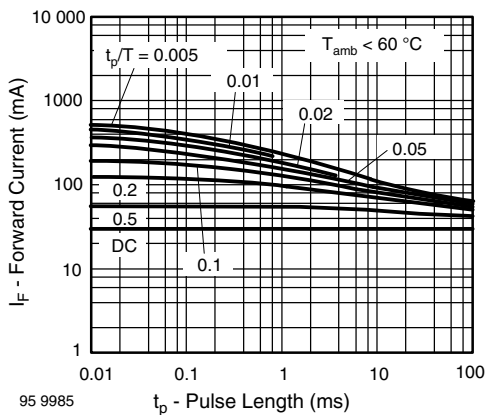


Fig. 2 - Pulse Forward Current vs. Pulse Duration

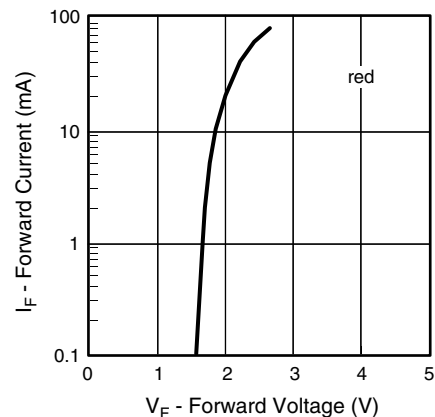


Fig. 4 - Forward Current vs. Forward Voltage

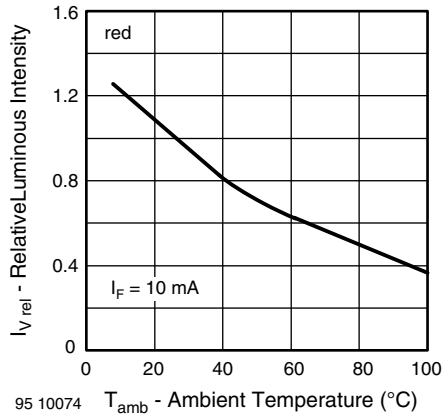


Fig. 5 - Relative Luminous Intensity vs. Ambient Temperature

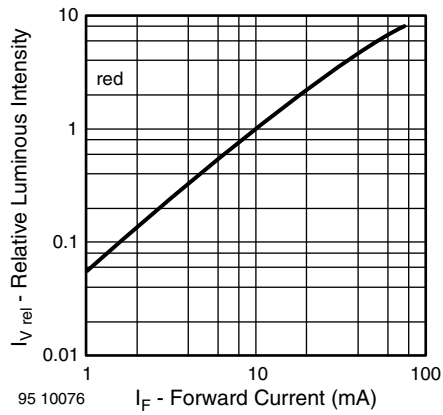


Fig. 6 - Relative Luminous Intensity vs. Forward Current

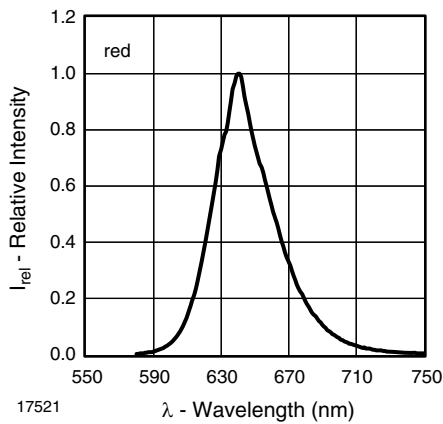
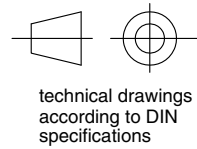
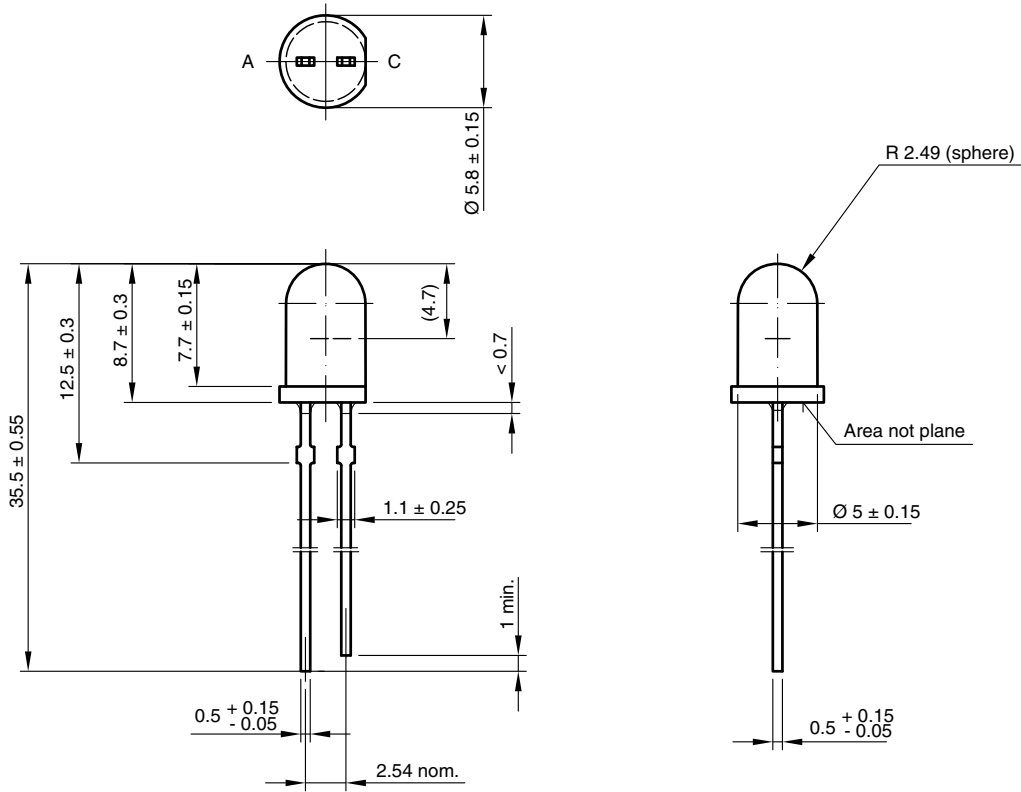


Fig. 7 - Relative Intensity vs. Wavelength

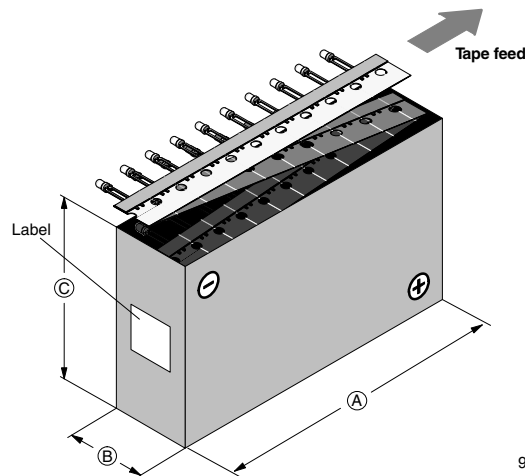


PACKAGE DIMENSIONS in millimeters



6.544-5258.02-4
Issue: 7; 23.07.10
95 10916

AMMOPACK



94 8667-1

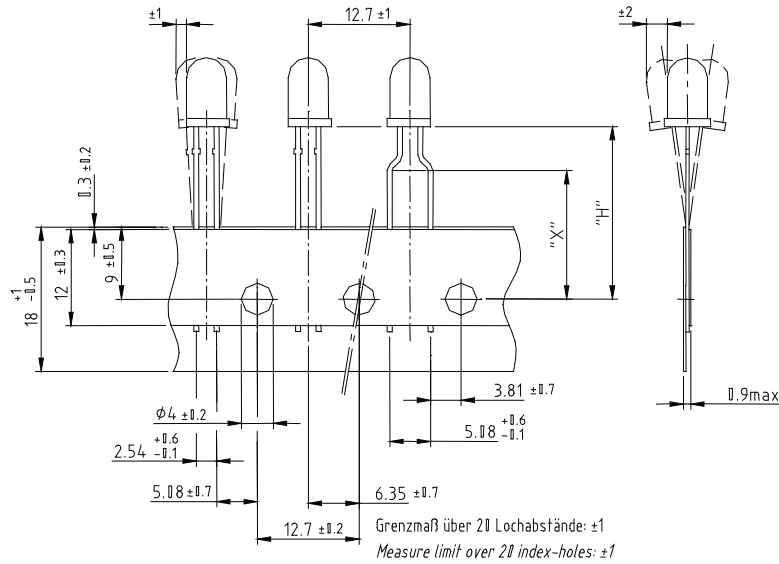
Fig. 8 - Tape Direction

Note

- The new nomenclature for ammpack is e.g. ASZ only, without suffix for the LED orientation. The carton box has to be turned to the desired position: "+" for anode first, or "-" for cathode first. AS12Z and AS21Z are still valid for already existing types, BUT NOT FOR NEW DESIGN.



TAPE DIMENSIONS in millimeters



Quantity per:	Ammopack/reel (Mat.-No. 1764)
	1000

948172_1

Option	Dim. "H" ± 0.5 mm	Dim. "X" ± 0.5 mm
AS	17.3	
MS	25.5	
CS	22.0	
LS	21.0	
BT	20.0	16.0



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