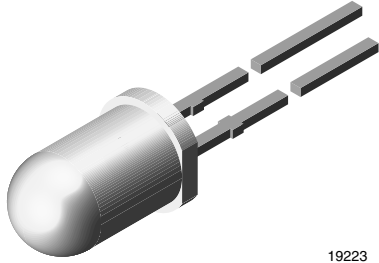




# Universal LED in Ø 5 mm Tinted Diffused Package



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](http://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 <sub>F</sub> (mA)	WAVELENGTH (nm)			at I <sub>F</sub> (mA)	FORWARD VOLTAGE (V)			at I <sub>F</sub> (mA)	TECHNOLOGY
		MIN.	TYP.	MAX.		MIN.	TYP.	MAX.		MIN.	TYP.	MAX.		
TLUR5400	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

ABSOLUTE MAXIMUM RATINGS (T <sub>amb</sub> = 25 °C unless otherwise specified)				
TLUR540.				
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Reverse voltage		V <sub>R</sub>	6	V
DC forward current		I <sub>F</sub>	20	mA
Surge forward current	t <sub>p</sub> ≤ 10 μs	I <sub>FSM</sub>	1	A
Power dissipation	T <sub>amb</sub> ≤ 65 °C	P <sub>V</sub>	60	mW
Junction temperature		T <sub>j</sub>	100	°C
Operating temperature range		T <sub>amb</sub>	-40 to +100	°C
Storage temperature range		T <sub>stg</sub>	-55 to +100	°C
Soldering temperature	t ≤ 5 s, 2 mm from body	T <sub>sd</sub>	260	°C
Thermal resistance junction to ambient		R <sub>thJA</sub>	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	$I_F = 10\text{ mA}$		$\lambda_d$	-	630	-	nm
Peak wavelength	$I_F = 10\text{ mA}$		$\lambda_p$	-	640	-	nm
Angle of half intensity	$I_F = 10\text{ mA}$		$\phi$	-	$\pm 30$	-	$^{\circ}$
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**

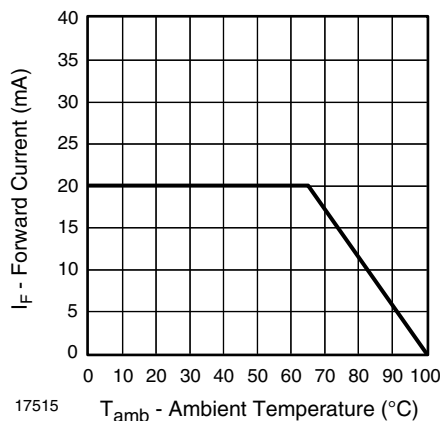
 (1) In one packing unit  $I_{Vmin.}/I_{Vmax.} \leq 0.5$ 
**TYPICAL CHARACTERISTICS** ( $T_{amb} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified)


Fig. 1 - Forward Current vs. Ambient Temperature

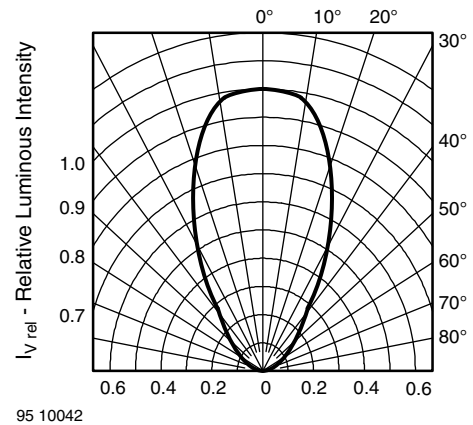


Fig. 3 - Relative Luminous Intensity vs. Angular Displacement

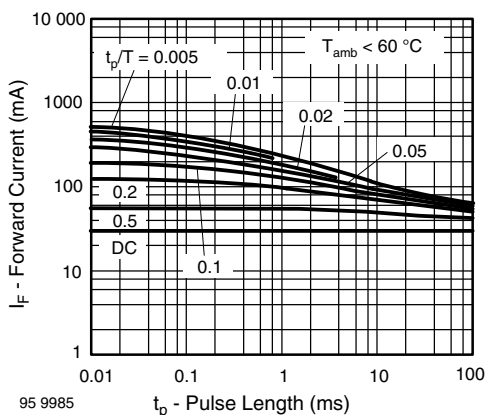


Fig. 2 - Pulse Forward Current vs. Pulse Duration

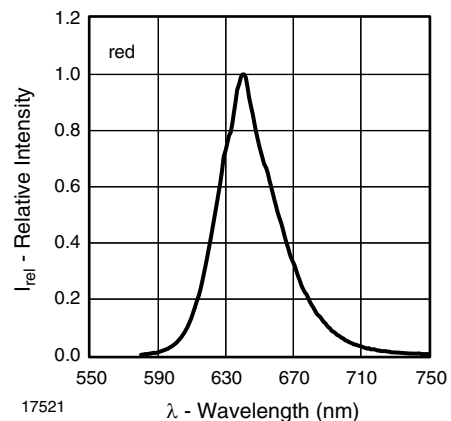


Fig. 4 - Relative Intensity vs. Wavelength

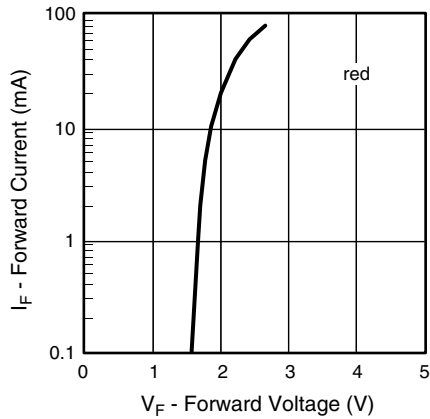


Fig. 5 - Forward Current vs. Forward Voltage

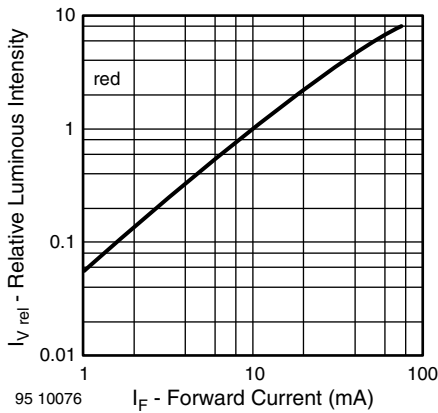


Fig. 6 - Relative Luminous Intensity vs. Forward Current

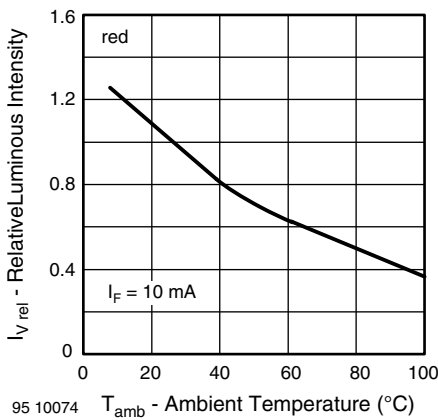
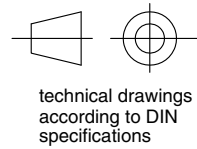
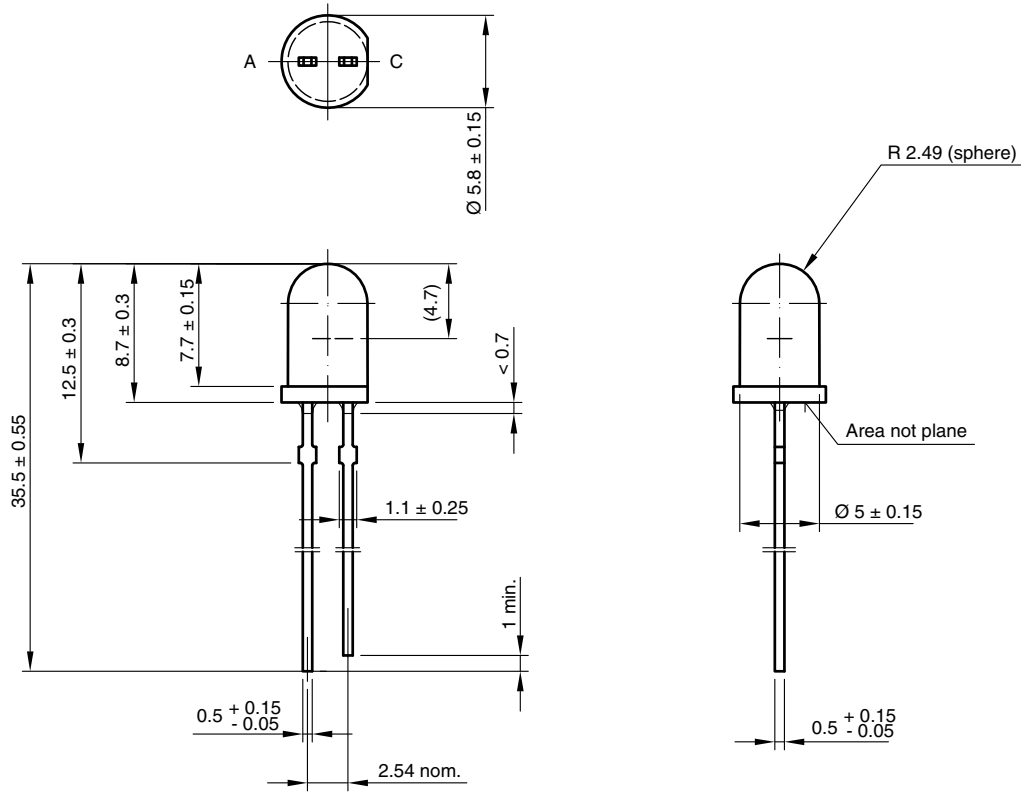


Fig. 7 - Relative Luminous Intensity vs. Ambient Temperature



PACKAGE DIMENSIONS in millimeters



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PACKING INFORMATION			
PART	BULK	TAPE AND REEL	AMMOPACK
TLUR540x	4000	-	-



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