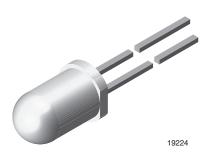


Vishay Semiconductors

Universal LED in Ø 5 mm Tinted Diffused Package



PRODUCT GROUP AND PACKAGE DATA

• Product group: LED • Package: 5 mm

· Product series: standard • Angle of half intensity: ± 30°

FEATURES

- For DC and pulse operation
- · Luminous intensity categorized
- Standard T-1¾ package
- TLUR640. without stand-offs
- Material categorization: For definitions of compliance please see www.vishay.com/doc?99912





HALOGEN FREE

GREEN (5-2008)

APPLICATIONS

· General indicating and lighting purposes

PARTS TABLE														
PART	COLOR	LUMINOUS INTENSITY (mcd)		at I _F	WAVELENGTH (nm)		at I _F	FORWARD VOLTAGE (V)		at I _F	TECHNOLOGY			
		MIN.	TYP.	MAX.	(mA)	MIN.	TYP.	MAX.	(mA)	MIN.	TYP.	MAX.	(IIIA)	1
TLUR6400	Red	4	15	-	10	-	630	-	10	-	2	3	20	GaAsP on GaAs
TLUR6401	Red	4	15	32	10	-	630	-	10	-	2	3	20	GaAsP on GaAs

ABSOLUTE MAXIMUM RATINGS (T _{amb} = 25 °C, unless otherwise specified) TLUR6401								
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT				
Reverse voltage		V_{R}	6	V				
DC forward current		ΙF	20	mA				
Surge forward current	t _p ≤ 10 μs	I _{FSM}	1	Α				
Power dissipation	T _{amb} ≤ 65 °C	P _V	60	mW				
Junction temperature		Tj	100	°C				
Operating temperature range		T _{amb}	- 40 to + 100	°C				
Storage temperature range		T _{stg}	- 55 to + 100	°C				
Soldering temperature	$t \le 5$ s, 2 mm from body	T _{sd}	260	°C				
Thermal resistance junction/ambient		R _{thJA}	500	K/W				

OPTICAL AND ELECTRICAL CHARACTERISTICS (T _{amb} = 25 °C, unless otherwise specified) TLUR640., RED									
PARAMETER	TEST CONDITION	PART	MIN.	TYP.	MAX.	UNIT	MIN.		
Luminous intensity (1)	I _F = 10 mA	TLUR6400	Ι _V	4	15	-	mcd		
Luminous intensity (*)	IF = 10 MA	TLUR6401	Ι _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 μA		V _R	6	15	-	V		
Junction capacitance	V _R = 0 V, f = 1 MHz		Cj	-	50	-	pF		

Note

(1) In one packing unit I_{Vmin.}/I_{Vmax.} ≤ 0.5

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

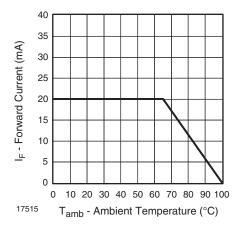


Fig. 1 - Forward Current vs. Ambient Temperature

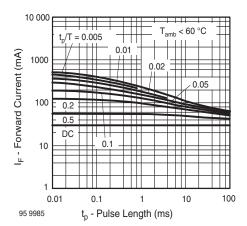


Fig. 2 - Pulse Forward Current vs. Pulse Duration

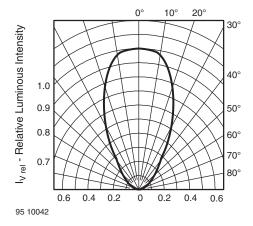


Fig. 3 - Relative Luminous Intensity vs. Angular Displacemen

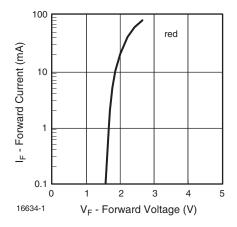


Fig. 4 - Forward Current vs. Forward Voltage

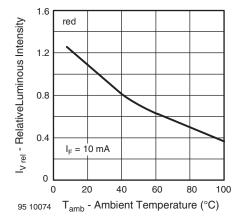


Fig. 5 - Relative Luminous Intensity vs. Ambient Temperature

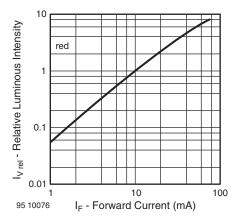
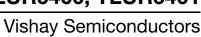


Fig. 6 - Relative Luminous Intensity vs. Forward Current





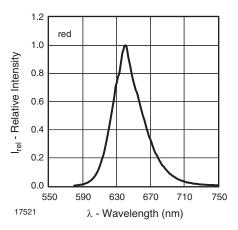
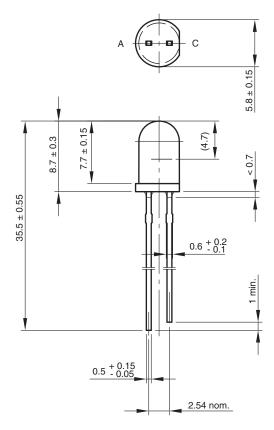
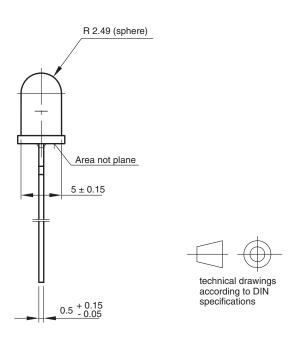


Fig. 7 - Relative Intensity vs. Wavelength

PACKAGE DIMENSIONS in millimeters



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