

Excellent Integrated System Limited

Stocking Distributor

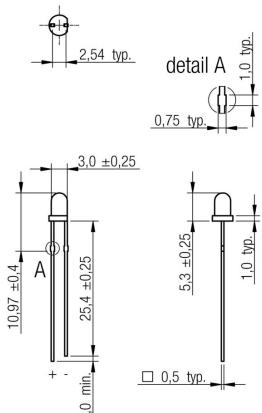
Click to view price, real time Inventory, Delivery & Lifecycle Information:

[Wurth Electronics Inc](#)
[151031SS04000](#)

For any questions, you can email us directly:

sales@integrated-circuit.com

A Dimensions: [mm]

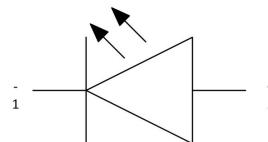


B Recommended hole pattern: [mm]



Scale - 1:1

C Schematic:



D Absolute Maximum Ratings (Ambient Temperature 25°C):

Properties	Test conditions	Value	Unit
Power dissipation		P _{Diss}	mW
Peak Forward Current	duty/10@1kHz	I _{F Peak}	mA
Continuous Forward Current		I _F	mA
Reverse Voltage		V _{Rev}	V
ESD Threshold/ Human Body Model		V _{ESD HBM}	V

E General information:

- Operating temperature: -40°C to +85°C
- Storage temperature (on tape & reel): -40°C to +85°C; 60% RH max.
- Moisture Sensitivity Level (MSL): 1

Optical Properties:

Properties	Value
Chip Technology	AlInGaP
Emitting Color	Super Red
Lens Type	Color diffused

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				Projection	DESCRIPTION
1.8	2015-03-23	SSt	H0e		WL-TMRC THT LED round mono-color color lens
1.7	2014-11-03	SSt	ZAn		
1.6	2014-03-17	SSt	SSt		
1.5	2013-12-09	SSt	PLD		
1.4	2013-10-08	SSt	PLD		
1.3	2013-09-10	SSt	SSt		
1.2	2013-04-10	SSt	SSt		
REV	DATE	BY	CHECKED		

Würth Elektronik eiSos GmbH & Co. KG

EMC & Inductive Solutions
Max-Eyth-Str. 1
74638 Waldenburg
Germany
Tel. +49 (0) 79 42 945 - 0
www.we-online.com
eSos@we-online.com

DESCRIPTION

WL-TMRC THT LED round mono-color color lens

Order.- No.

151031SS04000



SIZE

A4

Size: 3 mm



D Electrical & Optical Properties:

Properties	Test conditions		Value			Unit
			min.	typ.	max.	
Peak Wavelength	20 mA	λ_{Peak}		640		nm
Dominant wavelength	20 mA	λ_{Dom}		635		nm
Luminous Intensity	20 mA	I_{L}	120	160		mcd
Forward Voltage	20 mA	V_{F}		2.0	2.4	V
Spectral Bandwidth	20 mA	$\Delta\lambda$		17		nm
Reverse Current	5 V	I_{Rev}			10	μA
Viewing Angle	20 mA	$2\theta_{50\%}$		40		°

				Projection	Würth Elektronik eiSos GmbH & Co. KG EMC & Inductive Solutions Max-Eyth-Str. 1 74638 Waldenburg Germany Tel. +49 (0) 79 42 945 - 0 www.we-online.com eSos@we-online.com	DESCRIPTION WL-TMRC THT LED round mono-color color lens
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1.2	2013-04-10	SSt	SSt			
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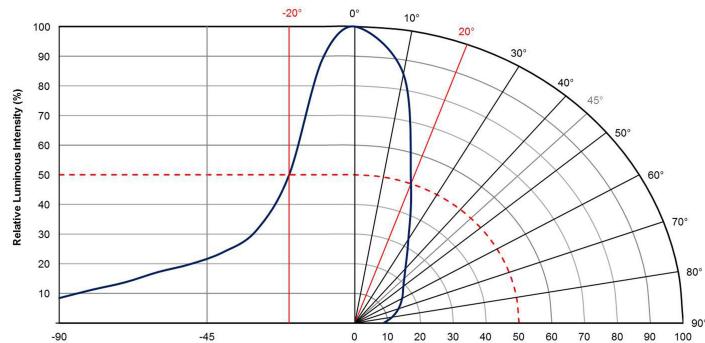


SIZE

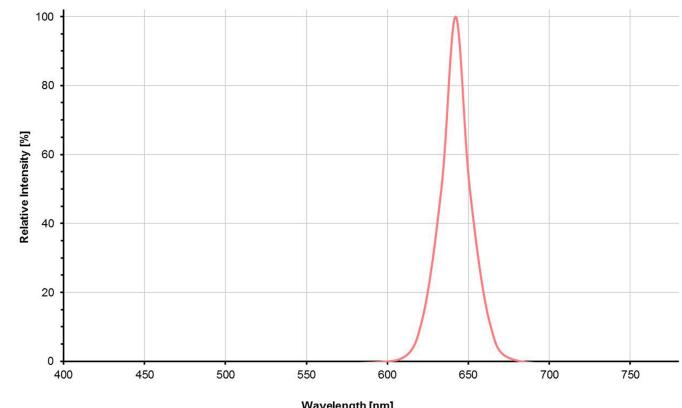
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F1 Viewing Angle:



F2 Spectral:



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 www.we-online.com
 eiSos@we-online.com

Order.- No.
151031SS04000

COMPLIANT
RoHS & REACH
HALOGEN FREE

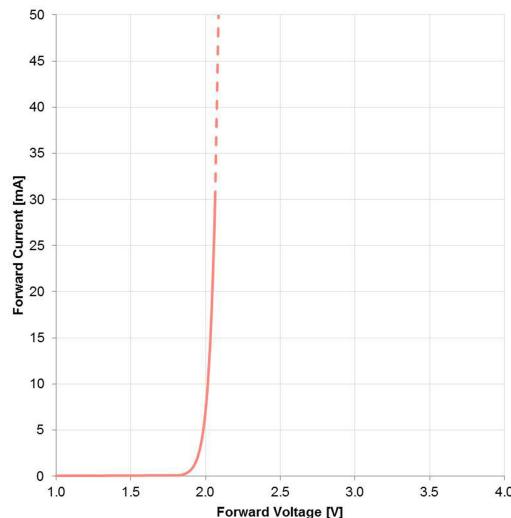
SIZE
A4

Size: 3 mm

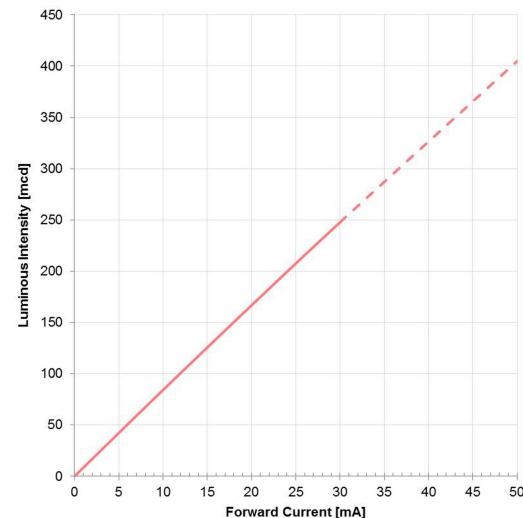
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F3 Forward Current vs. Forward Voltage:



F4 Luminous Intensity vs. Forward Current:

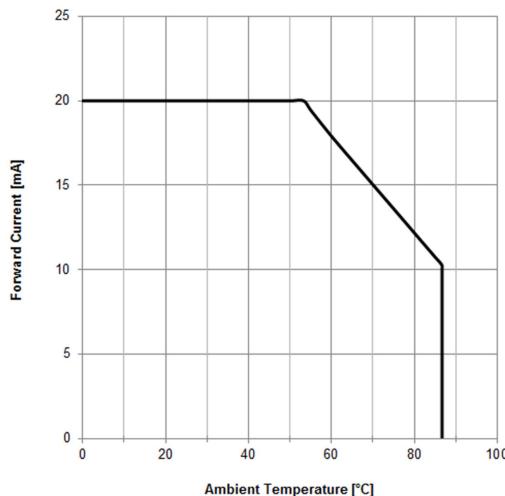


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F5 Derating Curve:

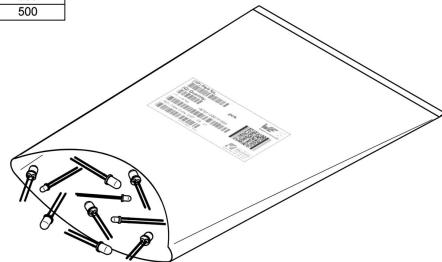


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					Würth Elektronik eiSos GmbH & Co. KG EMC & Inductive Solutions Max-Eyth-Str. 1 74638 Waldenburg Germany Tel. +49 (0) 79 42 945 - 0 www.we-online.com eSos@we-online.com	WL-TMRC THT LED round mono-color color lens	
					Order.- No.	151031SS04000	SIZE
							A4
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G1 Packaging Specification - Bulk [mm]:

	Packaging Type	Packaging Unit
151031xx	Bulk	500
151032xx	Bulk	500
151033xxx	Bulk	500
151034xx	Bulk	500
151051xx	Bulk	250
151052xx	Bulk	250
151053xxx	Bulk	500
151054xxx	Bulk	500

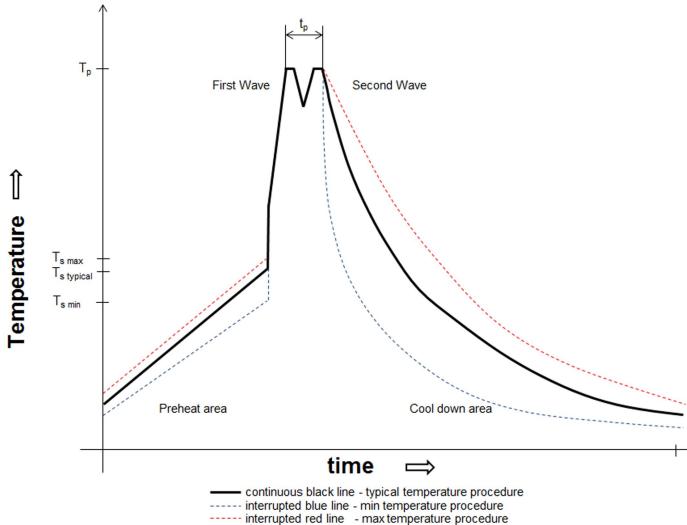


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					Order.- No. 151031SS04000
					SIZE A4
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H Soldering Specifications:

H1: Classification Wave Soldering Profile:



H2: Classification Wave Profile

Profile Feature	Pb-Free Assembly	Sn-Pb Assembly
Preheat	<ul style="list-style-type: none"> - Temperature Min (T_s min) - Temperature Typical (T_s typical) - Temperature Max (T_s max) - Time (t_s) from (T_s min to T_s max) 	<ul style="list-style-type: none"> 100°C 120°C 130°C 70 seconds
Δ preheat to max Temperature	150°C max.	150°C max.
Peak temperature (T_p)	245°C - 260°C	235°C - 260°C
Time of actual peak temperature (t_p)	5-8 seconds max.	3-6 seconds max.
Ramp-down rate	<ul style="list-style-type: none"> - Min - Typical - Max 	<ul style="list-style-type: none"> ~ 2 K/s ~ 3.5 K/s ~ 5 K/s
Time 25°C to 25°C	4 minutes	4 minutes
Applied cycles	1 cycle max.	1 cycle max.

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I Cautions and Warnings:

The following conditions apply to all goods within the product series of WL-TMRC of Würth Elektronik eiSos GmbH & Co. KG:

General:

All recommendations according to the general technical specifications of the data sheet have to be complied with.

If the product is potted in customer applications, the potting material might shrink during and after hardening. The product is exposed to

pressure of the potting material with the effect that the LED body, pins or termination is possibly damaged by this pressure and so the electrical as well as the mechanical characteristics are endangered to be affected. After the potting material is cured, the LED body, pins or termination of the product have to be checked if any reduced electrical or mechanical functions or destructions have occurred.

The responsibility for the applicability of customer specific products and use in a particular customer design is always within the authority of the customer. All technical specifications for standard products do also apply to customer specific products.

LED body, pins or termination. The washing varnish agent could have a negative effect on the long term function of the product.

The standard deliveries include values in the range and limitation as defined in the Electrical & Optical Properties specified in the datasheet. On each reel, only one bin is sorted and taped. The bin is defined on intensity, chromaticity coordinate or wavelength and forward voltage. In order to ensure highest availability, the reel binning of standard deliveries can vary. A single bin cannot be ordered. Please contact us in advance, if you need a particular bin sorting before placing your order to clarify the lead time, MOQ and pricing.



Product specific

Follow all instructions mentioned in the data sheet, especially:

- The soldering profile has to be compiled with according to the technical reflow/ wave soldering specification, otherwise this will void the warranty.
 - All products shall be used before the end of the period of 12 months based on the product date code, if not a 100% solderability can't be ensured.
 - Violation of the technical product specifications such as exceeding the absolute maximum ratings will void the warranty.
 - It is also recommended to return the LEDs to the original moisture proof bag and reseal the moisture proof bag again.
 - Certain LED surfaces consist of soft material. Pressure on the top surface has to be handled carefully to prevent negative influence to the function and reliability of the LEDs.
 - ESD prevention methods need to be applied for manual handling and processing by machinery.
 - Resistors for protection are obligatory.
 - Luminaires in operation could harm human vision or skin on a photo-biological level, therefore direct light impact has to be avoided. All products are additionally certified as risk groups 0 to 2 according to DIN EN 62471-2008

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J Important Notes:

**The following conditions apply to all goods within the product range of
Würth Elektronik eiSos GmbH & Co. KG:**

1. General Customer Responsibility

Some goods within the product range of Würth Elektronik eiSos GmbH & Co. KG contain statements regarding general suitability for certain application areas. These statements about suitability are based on our knowledge and experience of typical requirements concerning the areas, serve as general guidance and cannot be estimated as binding statements about the suitability for a customer application. The responsibility for the applicability and use in a particular customer design is always solely within the authority of the customer. Due to this fact it is up to the customer to evaluate, where appropriate to investigate and decide whether the device with the specific product characteristics described in the product specification is valid and suitable for the respective customer application or not.

2. Customer Responsibility related to Specific, in particular Safety-Relevant Applications

It has to be clearly pointed out that the possibility of a malfunction of electronic components or failure before the end of the usual lifetime cannot be completely eliminated in the current state of the art, even if the products are operated within the range of the specifications.

In certain customer applications requiring a very high level of safety and especially in customer applications in which the malfunction or failure of an electronic component could endanger human life or health it must be ensured by most advanced technological aid of suitable design of the customer application that no injury or damage is caused to third parties in the event of malfunction or failure of an electronic component.

Therefore, customer is cautioned to verify that data sheets are current before placing orders. The current data sheets can be downloaded at www.we-online.com.

3. Best Care and Attention

Any product-specific notes, cautions and warnings must be strictly observed. Any disregard will result in the loss of warranty.

4. Customer Support for Product Specifications

Some products within the product range may contain substances which are subject to restrictions in certain jurisdictions in order to serve specific technical requirements. Necessary information is available on request. In this case the field sales engineer or the internal sales person in charge should be contacted who will be happy to support in this matter.

5. Product R&D

Due to constant product improvement product specifications may change from time to time. As a standard reporting procedure of the Product Change Notification (PCN) according to the JEDEC-Standard inform about minor and major changes. In case of further queries regarding the PCN, the field sales engineer or the internal sales person in charge should be contacted. The basic responsibility of the customer as per Sections 1 and 2 remains unaffected.

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						Order.- No.	
						151031SS04000	
						COMPLIANT RoHS&REACH HALOGENFREE	A4
						Size: 3 mm	

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