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

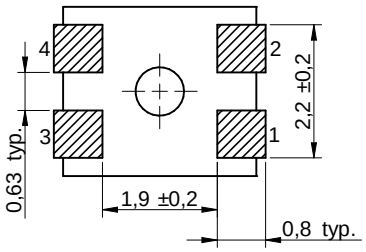
150141M173100

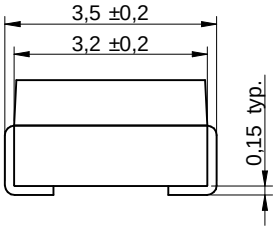
Wurth Elektronik

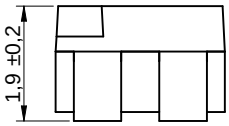
Standard LEDs - SMD WL-SFTW SMDBiClr Top WL-SFTW

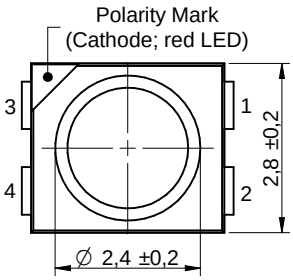
Any questions,please feel free to contact us.
info@kaimte.com

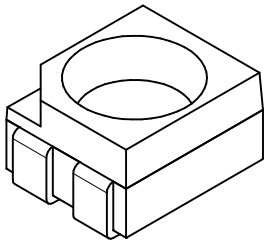
Dimensions: [mm]





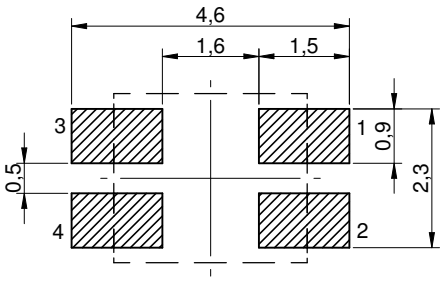




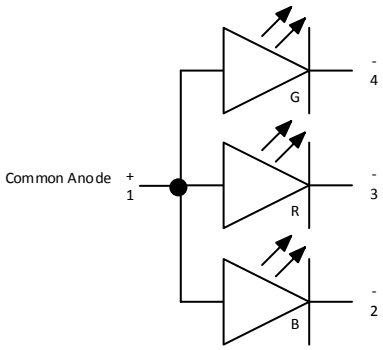


Scale - 8:1

Recommended Land Pattern: [mm]



Scale - 8:1



Absolute Max

Properties
Power Dissipation
Power Dissipation
Power Dissipation
Peak Forward Curr
Continuous Forwa
Reverse Voltage
ESD Threshold/ Hu Model

Optical Prope

Chip Technology
Emitting Color
Lens Type

General Infor

Operating Tempera
Storage Conditions packaging)
Moisture Sensitivi

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

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PLD	002.(

DESCRIPTION
WL-SFTW Waterclea

SIZE/TYPE
3528

This electronic component has been designed and developed for usage in general electronic equipment only. This product is not authorized for use in equipment where a higher safety standard and reliability standard is especially required or where a failure of the product is reasonably expected to cause severe personal injury or
& Co KG products are neither designed nor intended for use in areas such as military, aerospace, aviation, nuclear control, submarine, transportation (automotive control, train control, ship control), transportation signal, disaster prevention, medical, public information network etc.. Würth Elektronik eiSos GmbH & Co KG must be
must be performed on every electronic component which is used in electrical circuits that require high safety and reliability functions or performance.

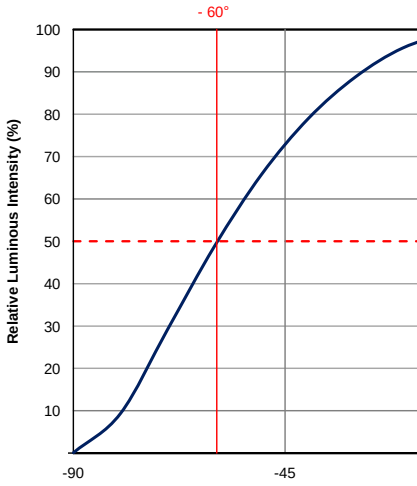
Electrical & Optical Properties:

Properties		Test conditions	Value			Unit
			min.	typ.	max.	
Peak Wavelength (Blue)	$\lambda_{Peak\ B}$	20 mA		465		nm
Peak Wavelength (Green)	$\lambda_{Peak\ G}$	20 mA		515		nm
Peak Wavelength (Red)	$\lambda_{Peak\ R}$	20 mA		635		nm
Dominant Wavelength (Blue)	$\lambda_{Dom\ B}$	20 mA		470		nm
Dominant Wavelength (Green)	$\lambda_{Dom\ G}$	20 mA		520		nm
Dominant Wavelength (Red)	$\lambda_{Dom\ R}$	20 mA		625		nm
Luminous Intensity (Blue)	$I_{V\ B}$	20 mA	180	230		mcd
Luminous Intensity (Green)	$I_{V\ G}$	20 mA	700	950		mcd
Luminous Intensity (Red)	$I_{V\ R}$	20 mA	200	270		mcd
Forward Voltage (Green)	$V_{F\ G}$	20 mA		3.2	3.6	V
Forward Voltage (Blue)	$V_{F\ B}$	20 mA		3.2	3.6	V
Forward Voltage (Red)	$V_{F\ R}$	20 mA		2	2.4	V
Spectral Bandwidth (Blue)	$\Delta\lambda$ B	20 mA		20		nm
Spectral Bandwidth (Green)	$\Delta\lambda$ G	20 mA		35		nm
Spectral Bandwidth (Red)	$\Delta\lambda$ R	20 mA		15		nm
Reverse Current	I_{REV}	5 V			10	µA
Viewing Angle Phi 0°	$2\theta_{50\%}$	20 mA		120		°

Certification:

RoHS Approval	Compliant [2011/65/EU&2015/863]
REACh Approval	Conform or declared [(EC)1907/2006]
Halogen Free	Conform [JEDEC JS709B]
Halogen Free	Conform [IEC 61249-2-21]
Photobiological Safety	IEC-62471 [Risk Group 1]

Viewing Angle:



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CHECKED: PLD

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DESCRIPTION: **WL-SFTW Waterclea**

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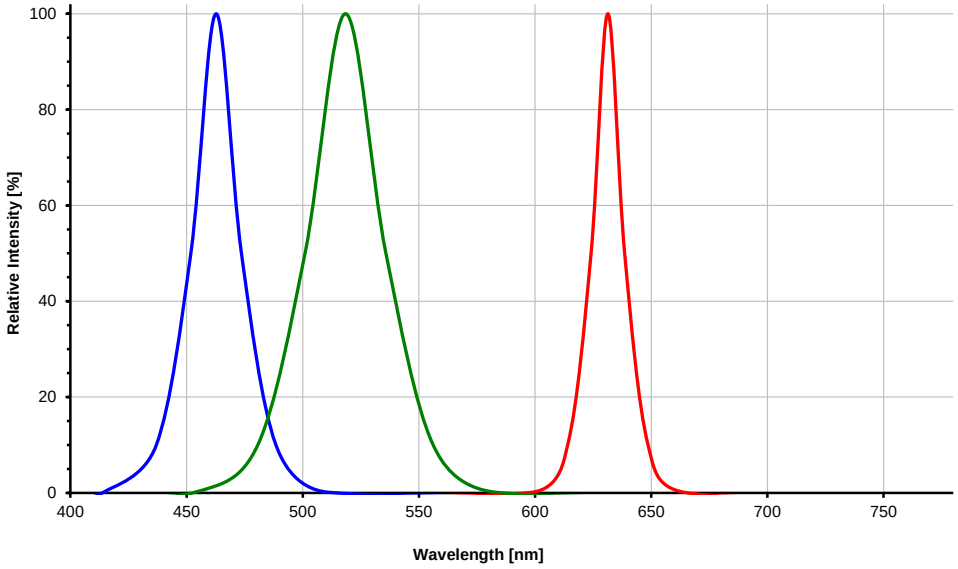
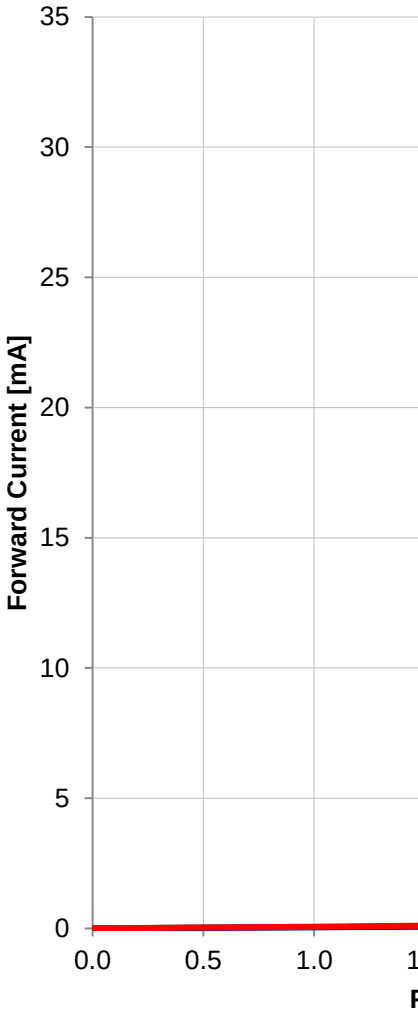
Spectral:



Forward Current vs. Forward Volta



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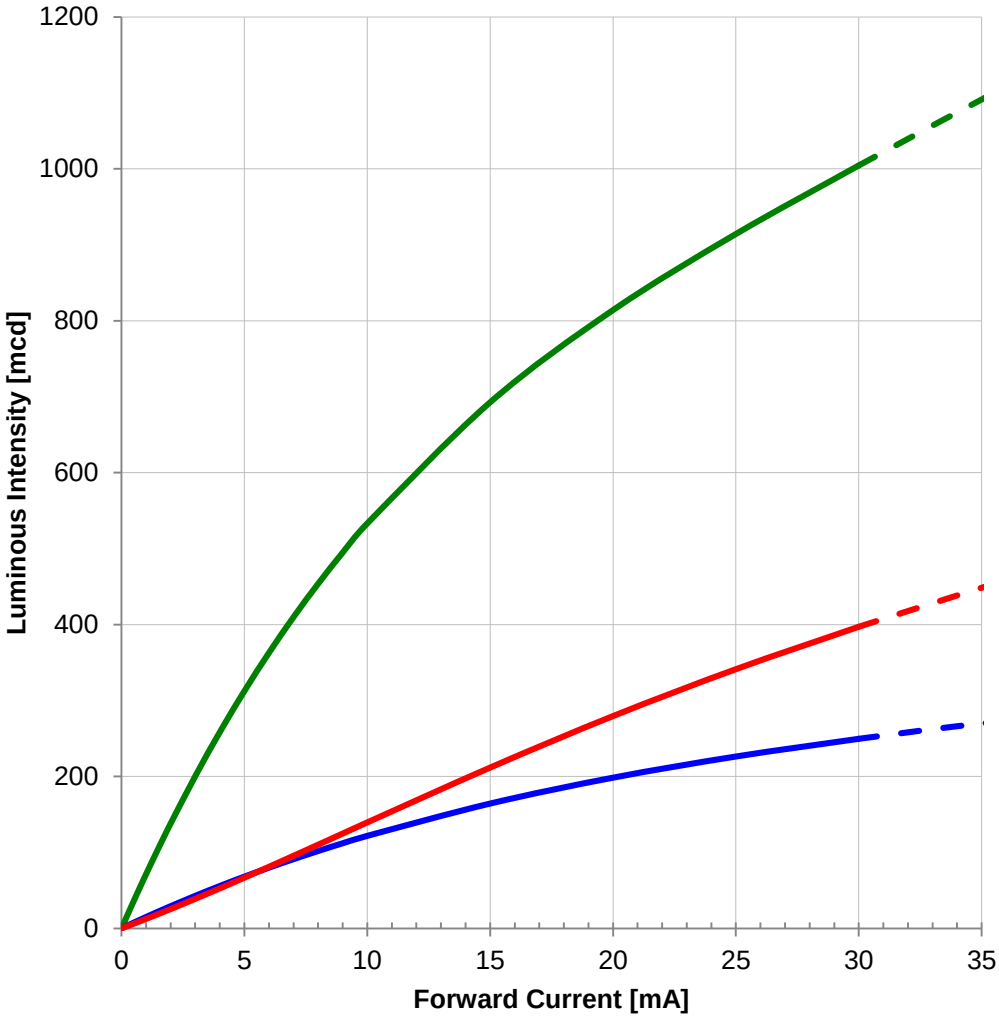
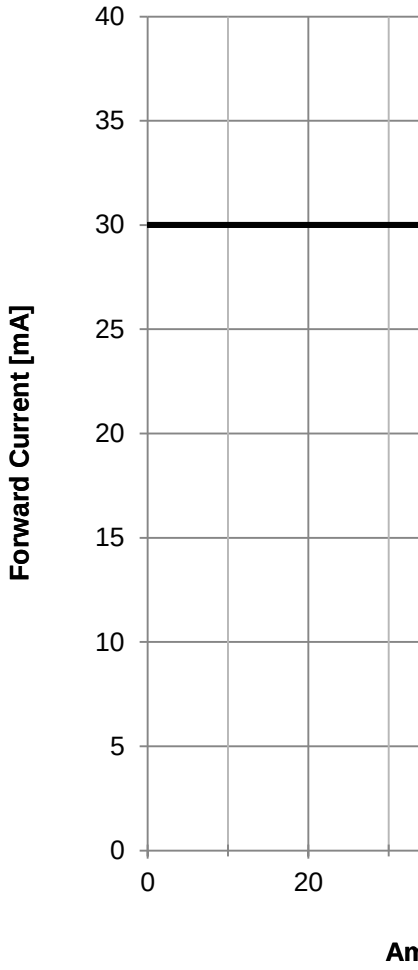
Luminous Intensity vs. Forward Current:



Derating Curve:



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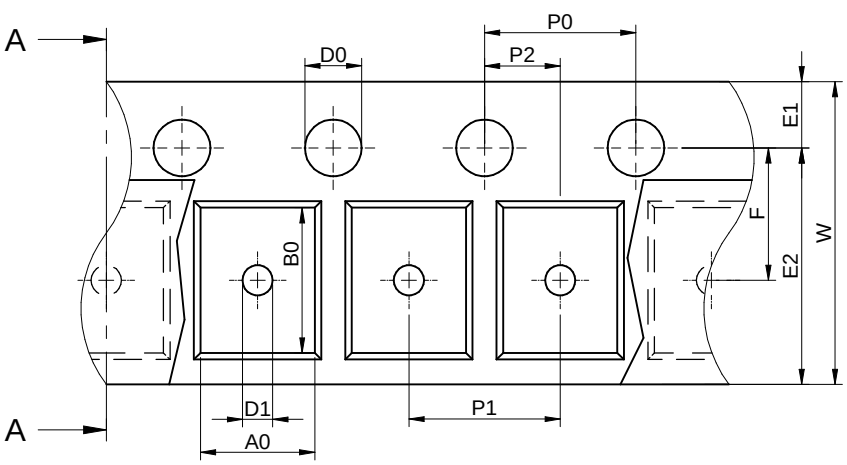
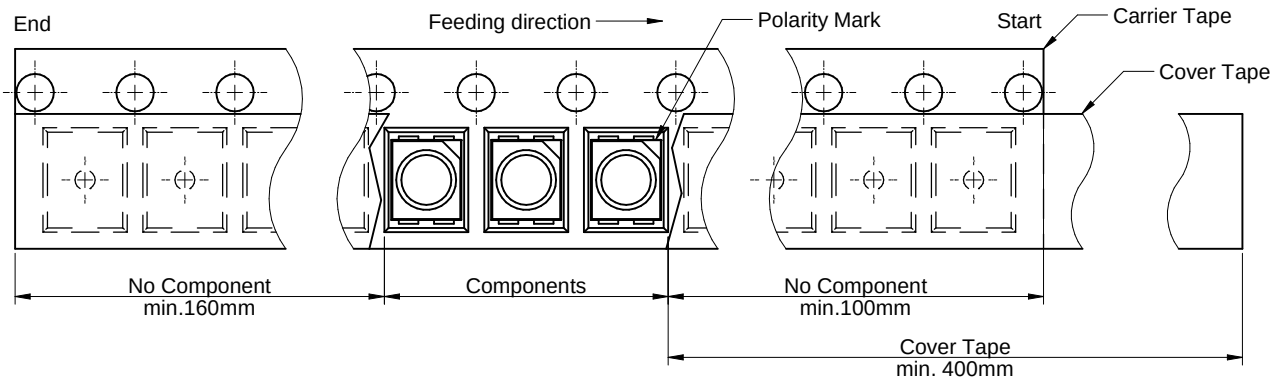
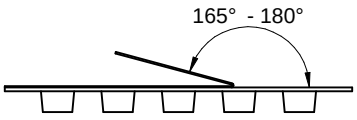
Packaging Specification - Tape: [mm]





Packaging is reffered to the international standard **IEC 60286-3:2013**

		A0	B0	W	T	T1	T2	K0	P0	P1	P2	D0	D1	E1	E2	F	Tape Type 2a	VPE / packaging unit
tolerance		typ.	typ.	+0,3/ -0,1	ref.	max.	typ.	typ.	±0,1	±0,1	±0,05	+0,1/ -0,0	min.	±0,1	min.	±0,05		pcs.
size	150141M173100	3,02	3,84	8,0		0,1	2,23		4,0	4,0	2,0	1,5	0,3	1,75	6,25	3,5	Polystyrene	xxx



		Pull-of force
Tape width	**8 mm**	0,1 N - 1,0 N

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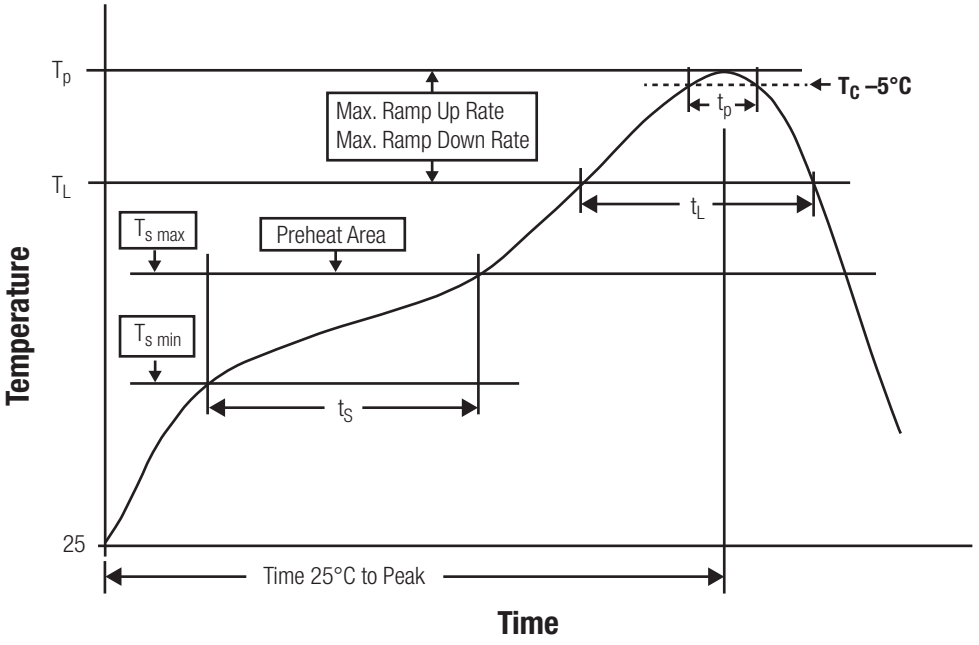
Classification Reflow Profile for SMT components:



Classification Reflow Soldering Profile

Profile Feature		Value
Preheat Temperature Min	$T_{s\,min}$	150 °C
Preheat Temperature Max	$T_{s\,max}$	200 °C
Preheat Time t_s from $T_{s\,min}$ to $T_{s\,max}$	t_s	max. 60 - 1
Ramp-up Rate (T_L to T_P)		3 °C/ secon
Liquidous Temperature	T_L	217 °C
Time t_L maintained above T_L	t_L	max. 60 se
Peak package body temperature	T_p	$T_p \leq T_c$, se
Time within 5°C of actual peak temperature	t_p	max. 10 se
Ramp-down Rate (T_P to T_L)		6 °C/ secon
Time 25°C to peak temperature		max. 220 s

refer to IPC/ JEDEC J-STD-020E

Package Classification Reflow Temper

Properties	Volume mm³ <350
PB-Free Assembly I Package Thickness < 1.6 mm	260 °C
PB-Free Assembly I Package Thickness 1.6 mm - 2.5 mm	260 °C
PB-Free Assembly I Package Thickness > 2.5 mm	250 °C
Applied cycles	2 cycles max.

refer to IPC/ JEDEC J-STD-020E

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Cautions and Warnings:

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

General:

- This optoelectronic component is designed and manufactured for use in general electronic equipment.
- Würth Elektronik must be asked for written approval (following the PPAP procedure) before incorporating the components into any equipment in fields such as military, aerospace, aviation, nuclear control, submarine, transportation (automotive control, train control, ship control), transportation signal, disaster prevention, medical, public information network, etc. where higher safety and reliability are especially required and/or if there is the possibility of direct damage or human injury.
- Optoelectronic components that will be used in safety-critical or high-reliability applications, should be pre-evaluated by the customer
- The optoelectronic component is designed and manufactured to be used within the datasheet specified values. If the usage and operation conditions specified in the datasheet are not met, the wire insulation may be damaged or dissolved.
- Do not drop or impact the components, the component may be damaged
- Würth Elektronik products are qualified according to international standards, which are listed in each product reliability report. Würth Elektronik does not warrant any customer qualified product characteristics beyond Würth Elektroniks' specifications, for its validity and sustainability over time.
- The responsibility for the applicability of the customer specific products and use in a particular customer design is always within the authority of the customer. All technical specifications for standard products also apply to customer specific products.
- Unless Würth Elektroik has given its express consent, the customer is under no circumstances entitled to reverse engineer, disassemble or otherwise attempt to extract knowledge or design information from the optoelectronic component

Product specific:

Soldering

- The solder profile must comply with the technical product specifications. All other profiles will void the warranty.
- All other soldering methods are at the customers' own risk.
- The soldering pad pattern shown above is a general recommendation for the easy assembly of optoelectronic component. If a high degree of precision is required for the selected application (i.e. high density assembly), the customer must ensure that the soldering pad pattern is optimized accordingly.

Cleaning and Washing:

- Washing agents used during the production to clean the customer application might damage or change the characteristics of the optoelectronic component body, marking or plating. Washing agents may have a negative effect on the long-term functionality of the product.
- Using a brush during the cleaning process may break th
  brush during the PCB cleaning process.

Potting:

- If the product is potted in the customer application, the
  could lead to an incomplete seal, allowing contaminants
  damage the components. We recommend a manual insp

Storage Conditions:

- A storage of Würth Elektronik products for longer than 1
  degradation, resulting in bad solderability. Therefore, all
  shipment.
- Do not expose the optoelectronic component to direct su
- The storage conditions in the original packaging are defi
- For a moisture sensitive component, the storage conditio
  also recommended to return the optoelectronic compone
- The storage conditions stated in the original packaging a

Packaging:

- The packaging specifications apply only to purchase ord
  lower than the specified packaging unit, packaging in ac

Handling:

- Violation of the technical product specifications such as
- The product design may influence the automatic optical
- Certain optoelectronic component surfaces consist of so
  negative influence to the function and reliability of the op
- ESD prevention methods need to be applied for manual
- Resistors for protection are obligatory.
- Luminaires in operation may harm human vision or skin
- In addition to optoelectronic components testing, produc
  in IEC 60825-1, IEC 62471 and IEC 62778
- Please be aware that Products provided in bulk packagin
  manufacturing tolerances mentioned in our datasheet, w
  provided in bulk packaging may get bent and might lead
  datasheet, which is not considered to be a material defe

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Technical specification:

- The typical and/or calculated values and graphics of technical parameters can only reflect statistical figures. The actual parameters of each single product, may differ from the typical and/or calculated values or the typical characteristic line.
- 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.
- Test conditions are measured at the typical current with pulse duration < 30ms.
- Optical properties are measured according the CIE 127:2007 standard.
- Wavelength tolerance under measurement conditions ± 2nm.
- Optical intensity tolerance under measurement conditions ±15%.
- Forward voltage tolerance under measurement conditions ± 0.1V.
- CCT tolerance of x and y coordinate of ± 0.01 and CRI tolerance of ± 2 is allowed.

In the characteristics curves, all values given in dotted lines may show a higher deviation than the parameters mentioned above.

These cautions and warnings comply with the state of the scientific and technical knowledge and are believed to be accurate and reliable. However, no responsibility is assumed for inaccuracies or incompleteness.

The customer has the sole responsibility to ensure that he uses the latest version of this datasheet, which is available on Würth Elektronik's homepage. Unless otherwise agreed in writing (i.e. customer specific specification), changes to the content of this datasheet may occur without notice, provided that the changes do not have a significant effect on the usability of the optoelectronic components

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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 Section 1 and 2 remains unaffected.

6. Product Life Cycle

Due to technical progress and economical evaluation we als
standard reporting procedure of the Product Termination Not
about inevitable product discontinuance. According to this w
available. Therefore it needs to be verified with the field sale
availability expectancy before or when the product for applic
apply in the case of individual agreements deviating from th

7. Property Rights

All the rights for contractual products produced by Würth Ele
well as models or templates that are subject to copyright, pa
Elektronik eiSos GmbH & Co. KG. Würth Elektronik eiSos Gm
implied, is granted under any patent right, copyright, mask w
application, or process in which Würth Elektronik eiSos Gmb

8. General Terms and Conditions

Unless otherwise agreed in individual contracts, all orders ar
Elektronik eiSos Group", last version available at www.we-or

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SIZE/TYPE
3528

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