AZ-Delivery
Ihr Experte für Mikroelektronik!

Photo Resistor Diodes 150V 5mm LDR5528 GL5528 5528 ebook

Areas of application
The products are intended for the support and assembly of electronic components and circuits.

Required knowledge and skills
The use of these products requires basic knowledge of electrical engineering and the handling of electronic components. Users should be able to install the products correctly and take the necessary safety precautions.

Environmental conditions
The products should be used in an environment free from moisture, dust and direct sunlight. They should not be operated near heat sources or in chemically aggressive environments to avoid damage and safety risks.

Intended Use
Passive electrical products such as heat sinks, battery holders and clips or breakout boards should be operated in environments that meet the specified temperature and voltage ranges of the respective products. These components are typically designed for indoor use.

Improper foreseeable use
Improper but foreseeable uses include use in humid or extremely hot environments or operation by untrained or disabled persons. The product must be kept away from children and pets.

disposal
Do not discard with household waste! Your product is according to the European one Directive on waste electrical and electronic equipment to be disposed of in an environmentally friendly manner. The valuable raw materials contained therein can be recycled become. The application of this directive contributes to environmental and health protection. Use the collection point set up by your municipality to return and Recycling of old electrical and electronic devices. WEEE Reg. No.: DE 62624346

safety instructions
Attention: Improper disposal of electronic components can endanger the environment and health. Note: Dispose of electronic components in accordance with local regulations and use appropriate recycling options. Attention: Chemically aggressive media can damage the materials of the products. Note: Do not use the products in corrosive or chemically aggressive environments. Attention: Improper disposal of electronic components can endanger the environment and health. Note: Dispose of electronic components in accordance with local regulations and use appropriate recycling options. Attention: Chemically aggressive media can damage the materials of the products. Note: Do not use the products in corrosive or chemically aggressive environments. Caution: Mechanical shock or bending can damage the products and connected components. Note: Avoid mechanical stress and protect the products from physical influences. Attention: Inadequate fastening can lead to malfunctions and damage. Note: Make sure all products are securely and firmly assembled. Caution: Damaged products may pose safety risks. Note: Check products regularly for visible damage and replace defective parts immediately. Attention: Overloading can lead to overheating and failure of the products. Note: Use the products only within the specified load limits. Attention: Overheating can cause damage to the products and the connected electronic components. Note: Make sure that, for example, heat sinks or components that heat up are adequately ventilated and that the specified temperature ranges are not exceeded.

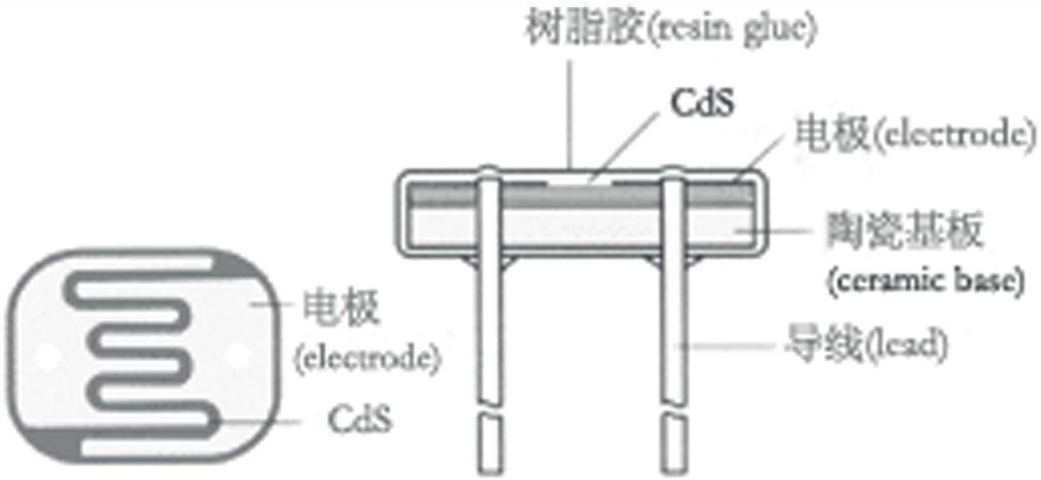
Contents:

1. Features

Photoresistor is a resistor which made of semi-conductor material,and the conductance changes with luminance variation .The photoresistor can be manufactured with different figures and illuminated area based on this characteristic.Photoresistor is widely used in many industries, such as toys,lamps,camera,etc.

- Coated with epoxy
- Small volume
- Fast response
- Good reliability
- High sensitivity
- Good spectrum characteristic

2. Schematic



3. Typical Applications

- Camera automatic photometry
- Indoor ray control
- Industrial control
- Light control lamp
- Photoelectric control
- Annunciator
- Light control switch
- Electronic toys

4. Types and Specifications

Specification	Type	Max. Voltage	Max. power	Environmental temp.	Spectrum peak value
Φ5 series	GL5516	150	90	-30~+70	540
	GL5528	150	100	-30~+70	540
	GL5537-1	150	100	-30~+70	540
	GL5537-2	150	100	-30~+70	540
	GL5539	150	100	-30~+70	540
	GL5549	150	100	-30~+70	540

Specification	Light resistance (10Lux) (KΩ)	Dark resistance (MΩ)	γ_{10}^{100}	Response time (ms)		Illuminance resistance Fig. No.
				Increase	Decrease	
Φ5 series	5-10	0.5	0.5	30	30	2
	10-20	1	0.6	20	30	3
	20-30	2	0.6	20	30	4
	30-50	3	0.7	20	30	4
	50-100	5	0.8	20	30	5
	100-200	10	0.9	20	30	6

5. Test Conditions

Max. external voltage: Maximum voltage to be continuously given to component in the dark.

Dark resistance: Refer to the resistance ten seconds after the 10Lux light is shut up.

Max. power consumption: Maximum power at the environmental temperature 25 °C.

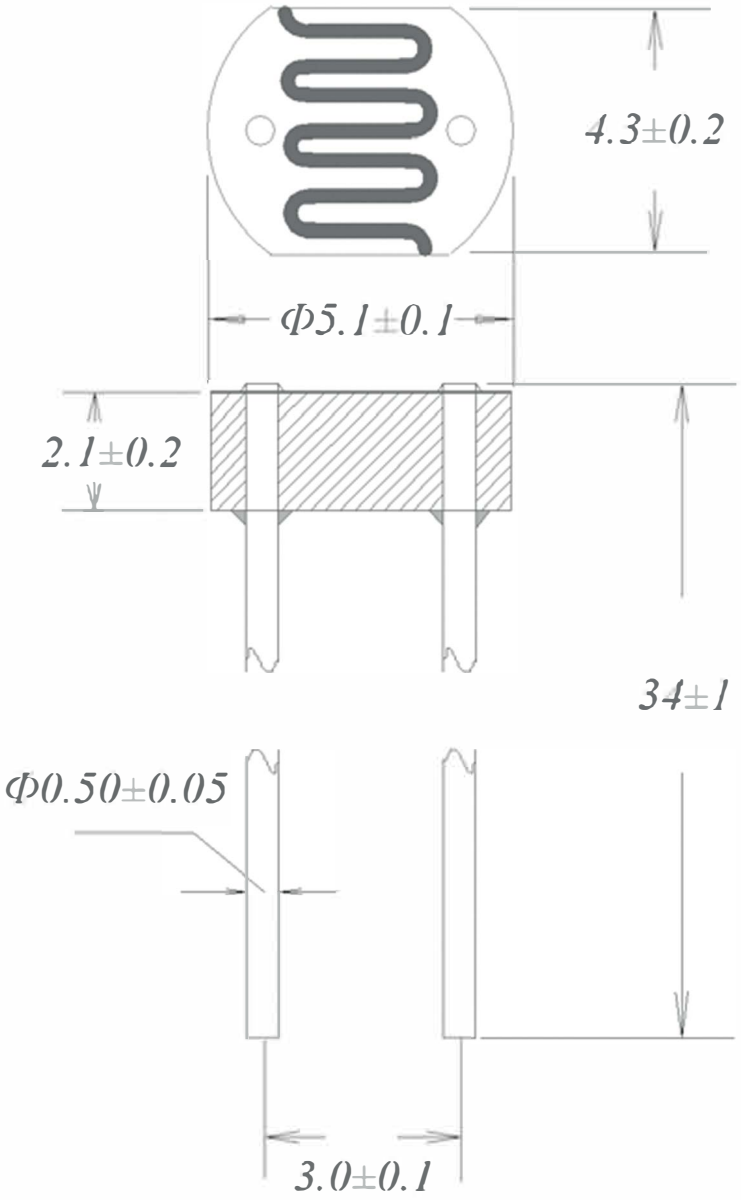
Light resistance: Irradiated by 400-600Lux light for two hours, then test with 10Lux under standard light source A(as colour temperature 2856K).

γ value: Logarithm of the ratio of the standard resistance value under 10Lux and that under 100Lux.

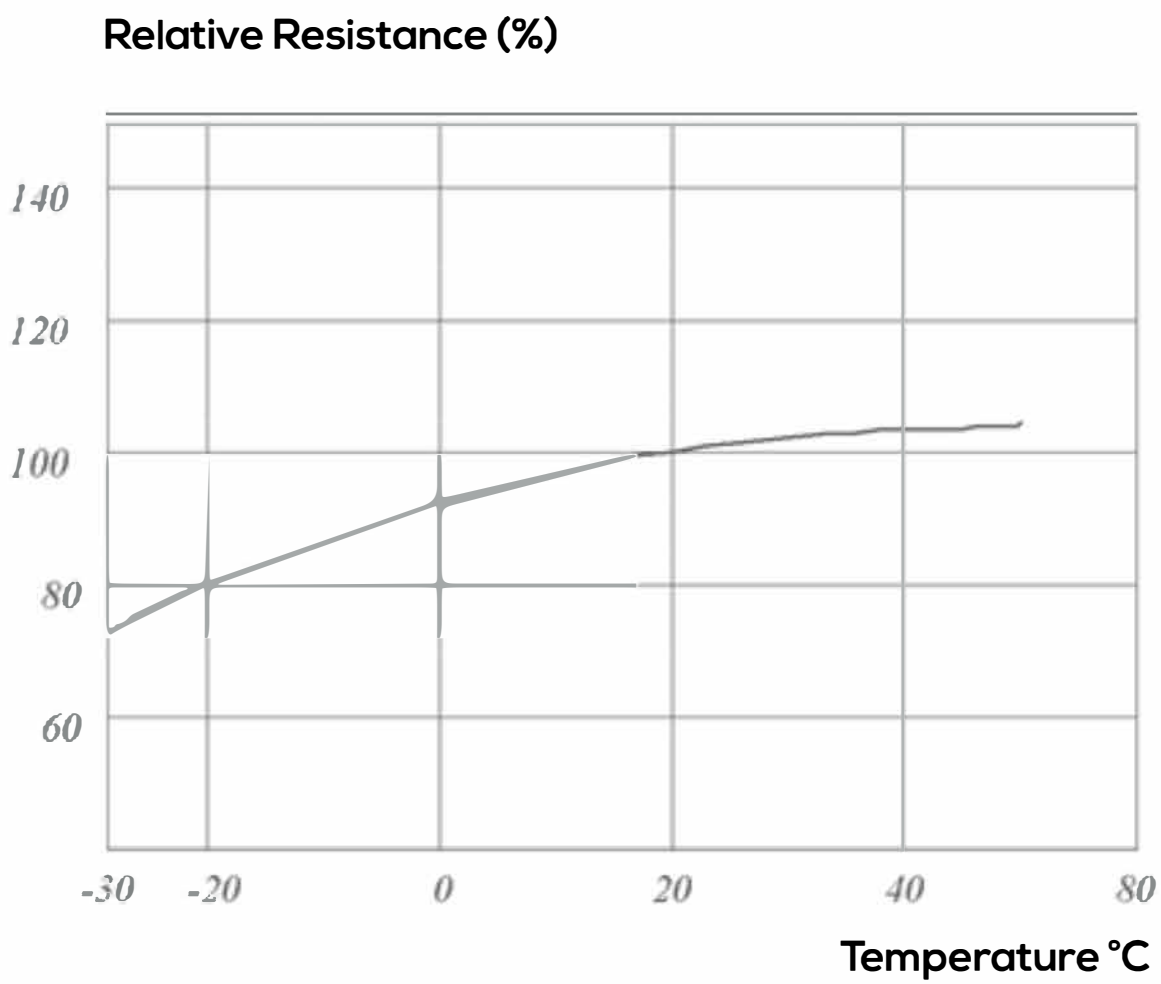
$$\gamma = \frac{Lg(R10/R100)}{Lg(100/10)} = Lg(R10/R100)$$

R10,R100 are the resistances under 10Lux and 100Lux respectively.

6. Main Characteristics Curve and Dimensions

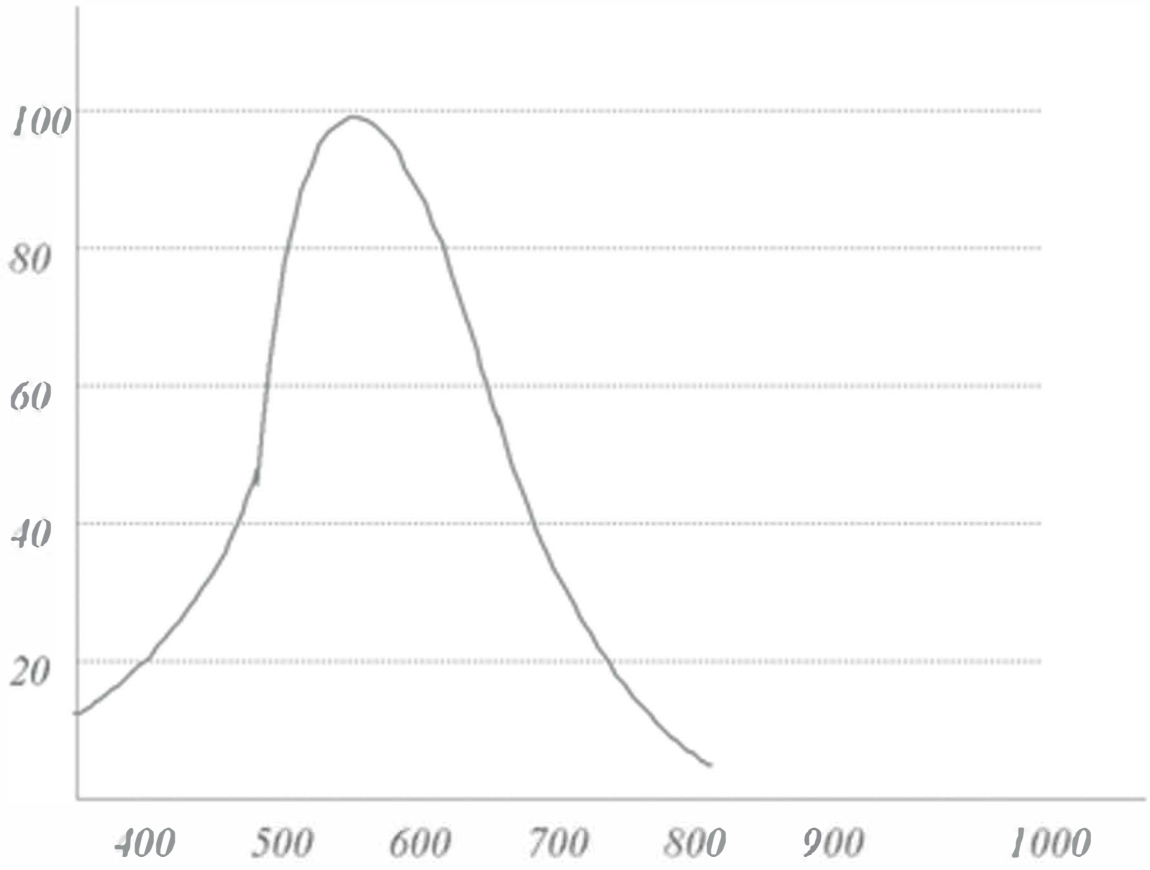


Specification **unit: mm**



Temperature-Property

Relative Response (%)



Wavelength λ (nm)

Spectrum Response Characteristic

7. Illuminance-Resistance Characteristics Curve

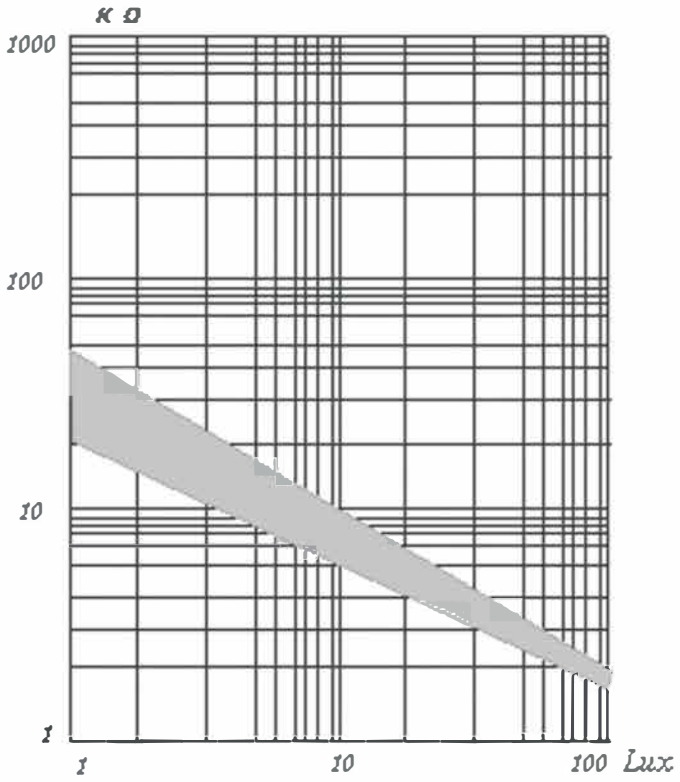


Figure 1.

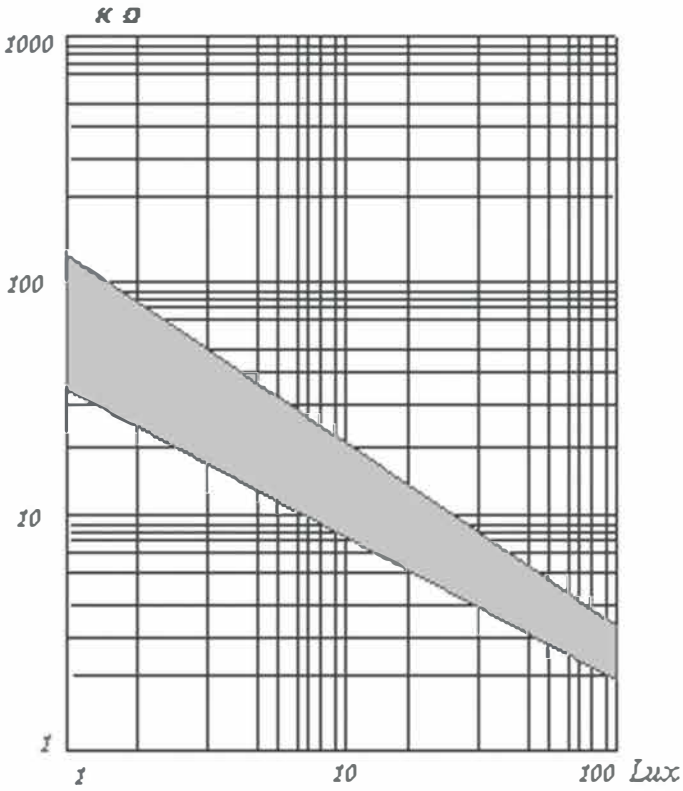
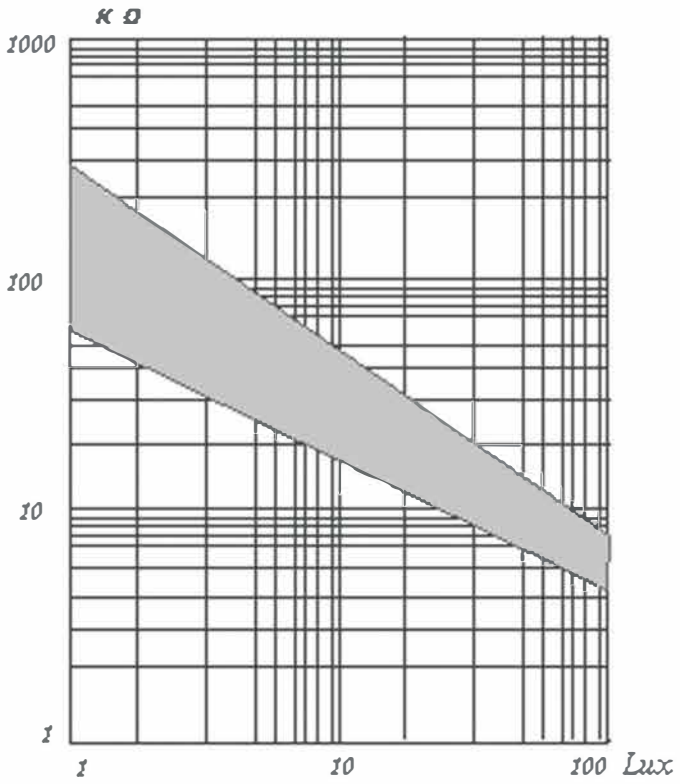


Figure 2.



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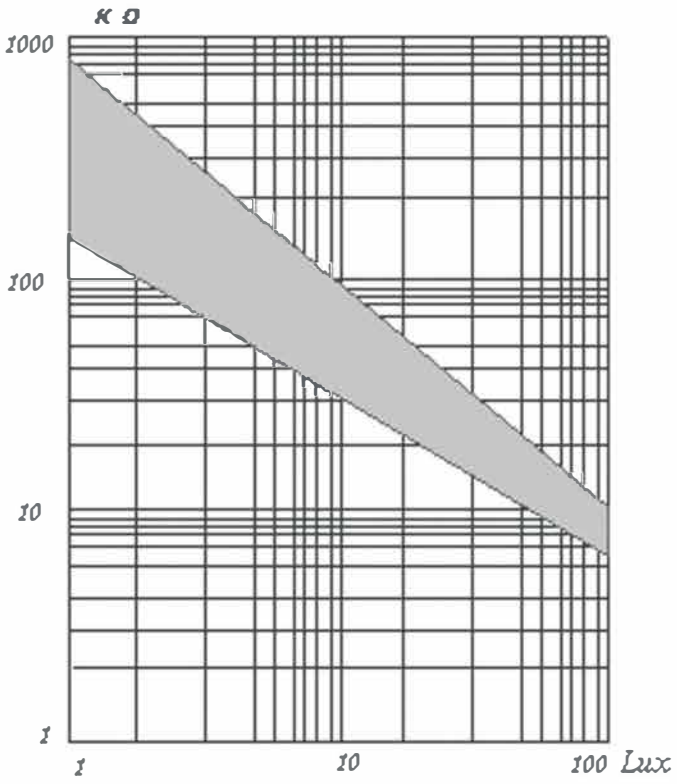
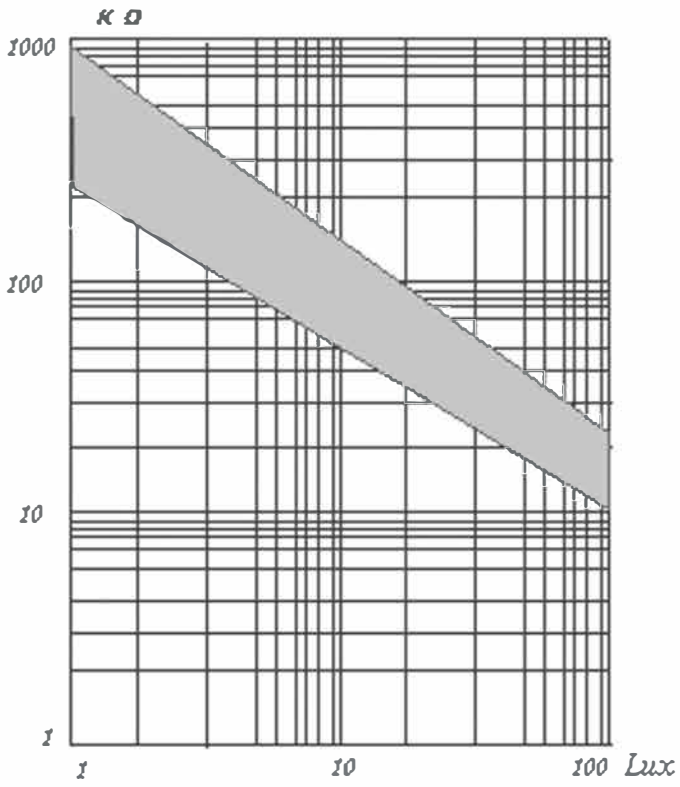


Figure 4.



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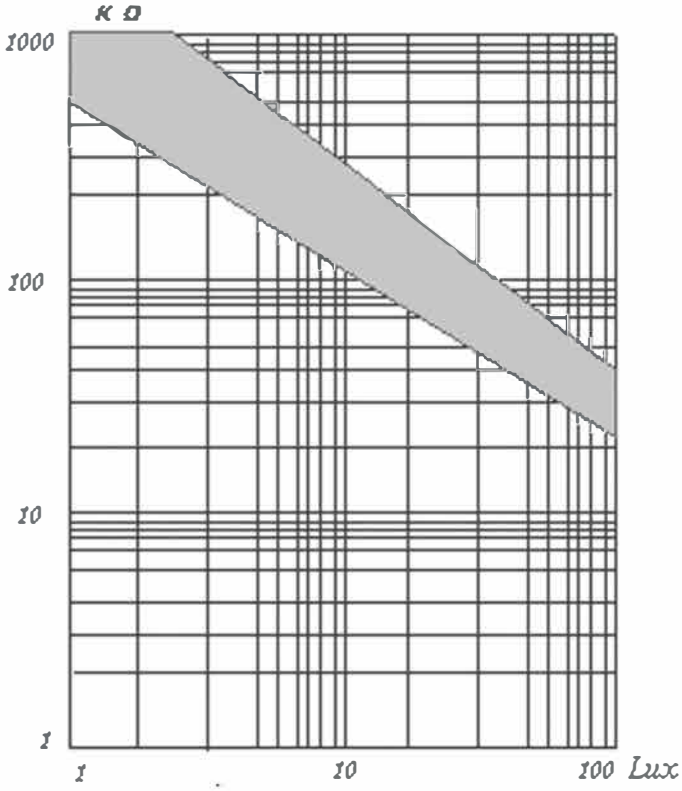

Figure 6.

8. Note

Avoid high temperature and humidity for storing.
Soldering should be completed in the shortest possible time.
It is recommended that the soldering should keep 4mm away from ceramic substrate.