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SPECIFICATION

PART NO. : LPFG33-FG-UDC3-GS08

3.5 x 3.5mm SMD TYPE

PRELIMINARY



Approved by

Checked by

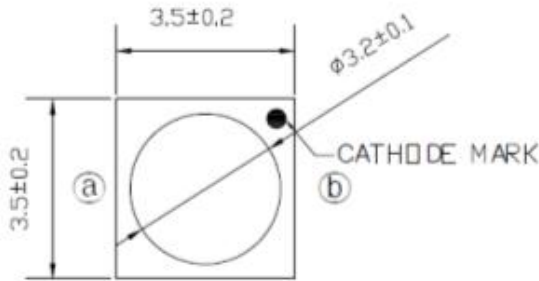
Prepared by

Yue

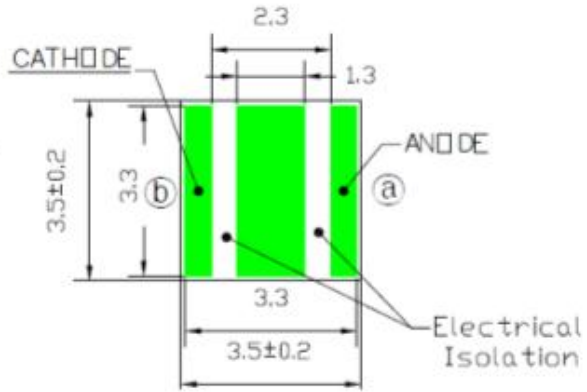
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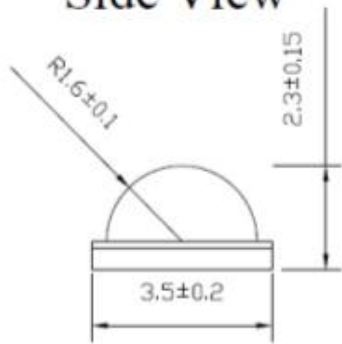
Top View



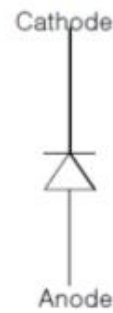
Bottom View



Side View



Circuit



Notes:

1. All dimensions are in mm.
2. The specifications, characteristics and technical data described in the datasheet are subject to change without notice.
3. Tolerance is ± 0.25 mm unless otherwise noted.

Description

Part No.	LED Chip		Lens Color
	Material	Emitting Color	
LPFG33-FG-UDC3-GS08	InGaN/Sapphire	YELLOW	Yellow diffused



LPFG33-FG-UDC3-GS08

3.5 x 3.5mm SMD TYPE

Absolute Maximum Ratings at Ta=25 °C

Parameter	Symbol	Rating	Unit
Reverse Voltage	VR	5	V
D.C. Forward Current	If	700	mA
Peak Current(1/10Duty Cycle,0.1ms Pulse Width.)	If(Peak)	1500	mA
LED Junction Temperature	TJ	150	°C
Storage Temperature Range	Tstg.	-10 to +85	°C
Electric Static Discharge	ESD	2000(HBM)	V

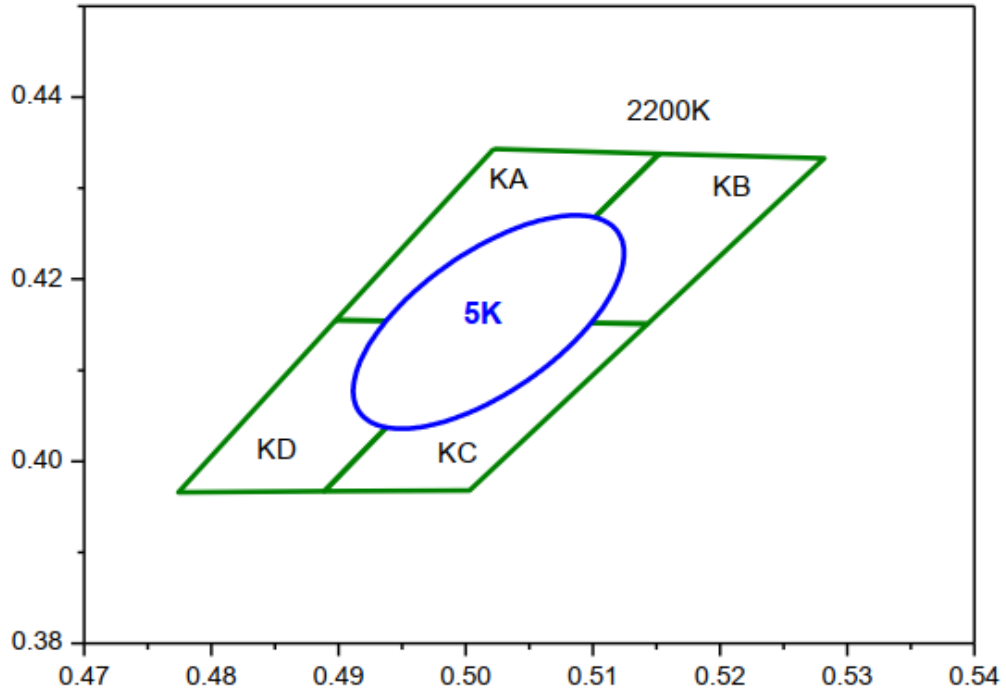
Electrical and Optical Characteristics:

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Luminous Flux	Φ_v	If=700mA	203	--	240	Lm
Forward Voltage	Vf	If=700mA	--	--	2.95	V
Correlated Colour Temperature	CCT	If=700mA	2100	--	2300	K
Thermal resistance	R θ J-B	If=700mA	--	3.2	--	k/W
Viewing Angle	2 θ 1/2	If=700mA	--	125	--	deg

- Notes:1. Tolerance of Luminous Intensity is $\pm 10\%$
2. Tolerance of Forward Voltage is $\pm 0.05V$
3. Tolerance of Dominant Wavelength is $\pm 2nm$

Color Bin Structure

CIE Chromaticity Diagram (Warm White), $T_j=85^{\circ}\text{C}$, $I_f=700\text{mA}$



BIN	RANK				
KA	X	0.5022	0.4898	0.5018	0.5152
	Y	0.4343	0.4155	0.4153	0.4338
KB	X	0.5152	0.5018	0.5143	0.5282
	Y	0.4338	0.4153	0.4151	0.4333
KC	X	0.5018	0.4889	0.5003	0.5143
	Y	0.4153	0.3967	0.3968	0.4151
KD	X	0.4898	0.4774	0.4889	0.5018
	Y	0.4155	0.3966	0.3967	0.4153

Typical Electrical/Optical Characteristic Curves

(25°C Ambient Temperature Unless Otherwise Noted)

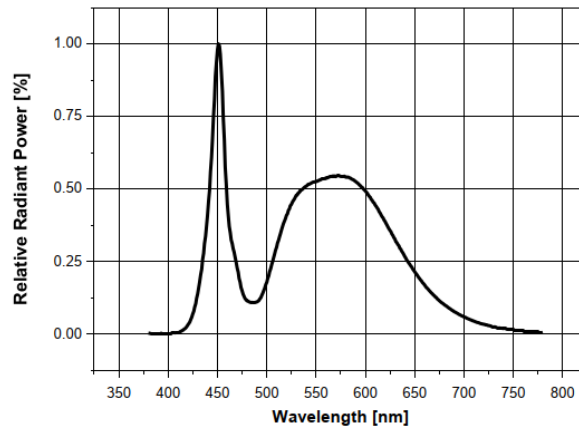
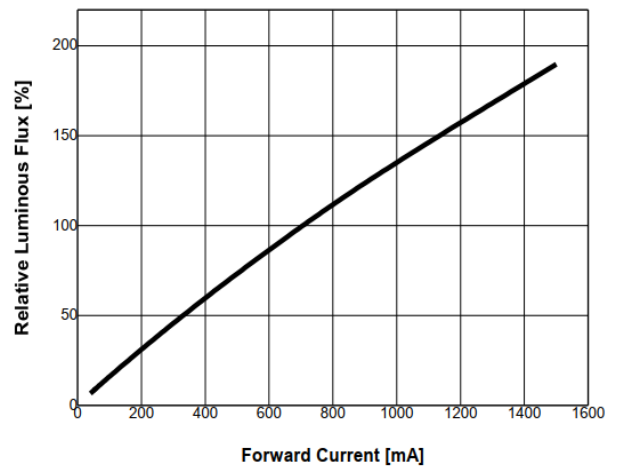
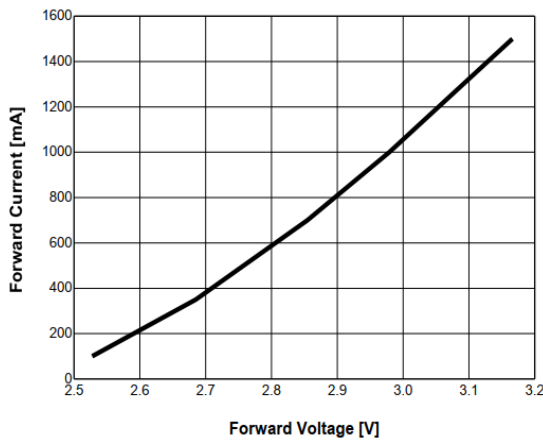
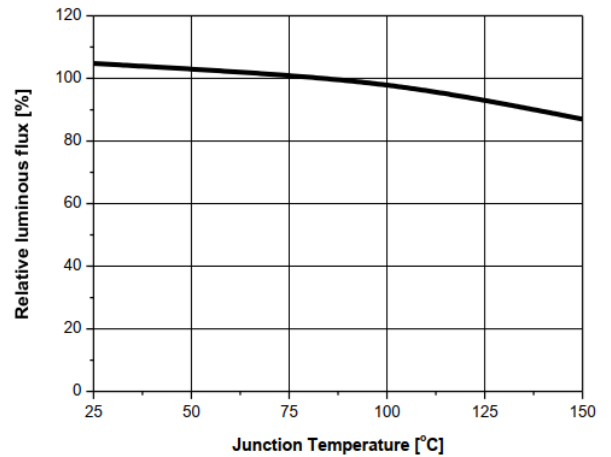
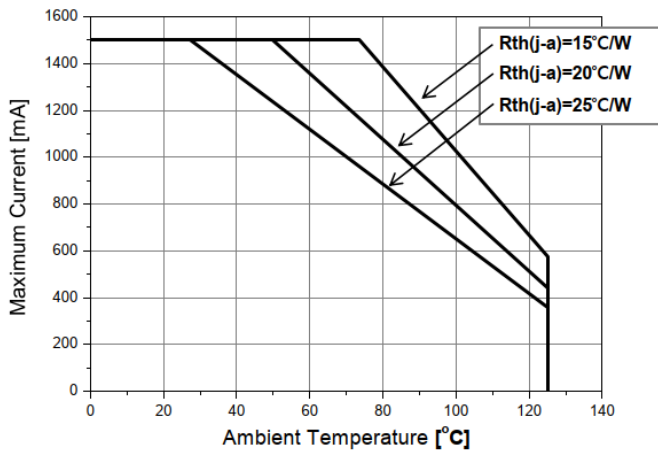


Fig.1 WHITE LED Spectrum VS. WAVELENGTH



Forward Current VS. Applied Voltage

Forward Current VS. Luminous Intensity



Ambient Temperature VS. Forward Current

Ambient Temperature VS. Forward Voltage

Sulfur-sensitive

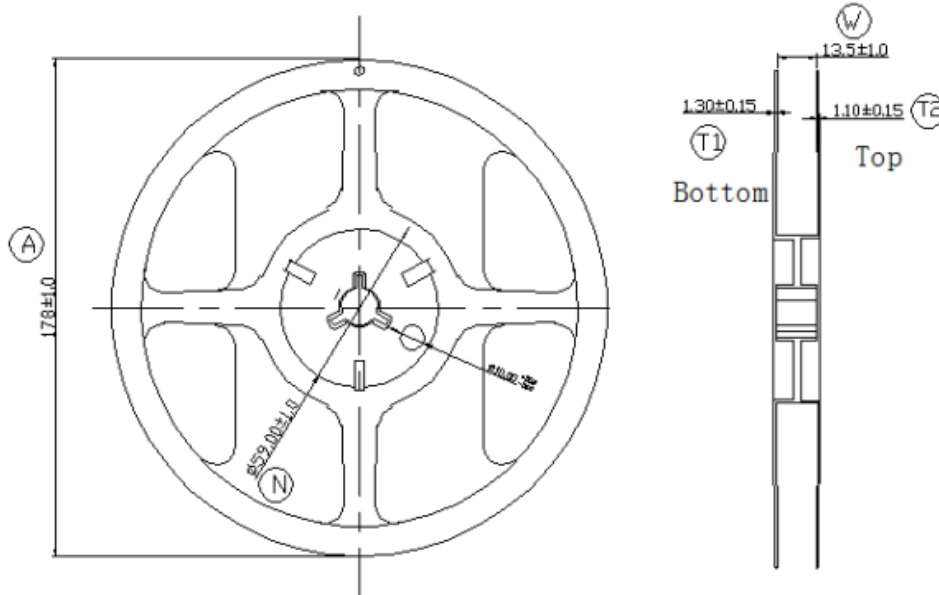
- **There is silver-plated metal part on the inner/outer side of the outer package.
If exposed to the condition with corrosive gas, the silver plating surface may go bad, which will affect soldering strength and optical properties. Therefore, after opening it must be kept in a sealed container, etc.**
- **Materials contain sulfur component (gasket, adhesive, etc.) may have bad effects on the surface of the coating, so please do not use such materials in the product.**
- **In cardboard boxes and rubber, even in the atmosphere may contain minute amount of corrosive gases; In addition, the resin material may also contain halogen which has a bad effect on the surface of the coating.**
- **Even if the soldering installation and product assembly finished, by the effect of corrosive gas generated by relative materials of LED and external injected, the coating surface may go bad, so it is necessary to design the product taking into account the above factors.**
- **If requires, it is best to use a silicone washer, but be aware that low molecular silicone may cause the product poor contact.**
- **Keep the product in location where has less temperature change, because moisture condensation would be generated under a condition of strong temperature change.**

DISCLAIMER

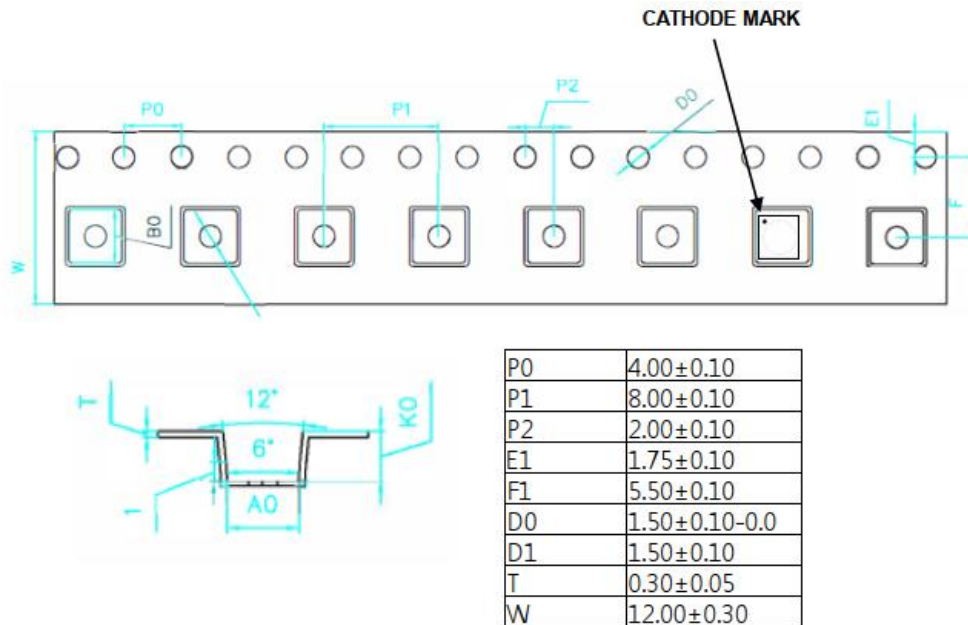
- 1. Our department reserves the right(s) on the adjustment of product material mix for the specification.**
- 2. The product meets our department published specification for a period of twelve (12) months from date of shipment.**
- 3. The graphs shown in this datasheet are representing typical data only and do not show guaranteed values.**
- 4. When using this product, please observe the absolute maximum ratings and the instructions for using outlined in these specification sheets. Our department assumes no responsibility for any damage resulting from the use of the product which does not comply with the absolute maximum ratings and the instructions included in these specification sheets.**
- 5. These specification sheets include materials protected under copyright of our department.
Reproduction in any form is prohibited without obtaining our department's prior consent.**
- 6. This product is not intended to be used for military, aircraft, automotive, medical, life sustaining or life saving applications or any other application which can result in human injury or death.**

Packing

Reel Dimensions



Carrier Tape Dimensions



Notice

1. Quantity : 900pcs/Reel
2. Cumulative Tolerance : Cumulative Tolerance/10 pitches to be $\pm 0.2\text{mm}$
3. Adhesion Strength of Cover Tape : Adhesion strength to be 10-60g when the cover tape is turned off from the carrier tape at the angle of 10° to the carrier tape
4. Package : P/N, Manufacturing data Code No. and quantity to be indicated on a damp proof

Package