

# DEMASLED

## SPECIFICATION FOR APPROVAL

CUSTOMER NAME : \_\_\_\_\_

PART No. HP100 \_\_\_\_\_

ISSUE DATE : 2015-05-14 \_\_\_\_\_

ACCESSORY : 201505014 \_\_\_\_\_

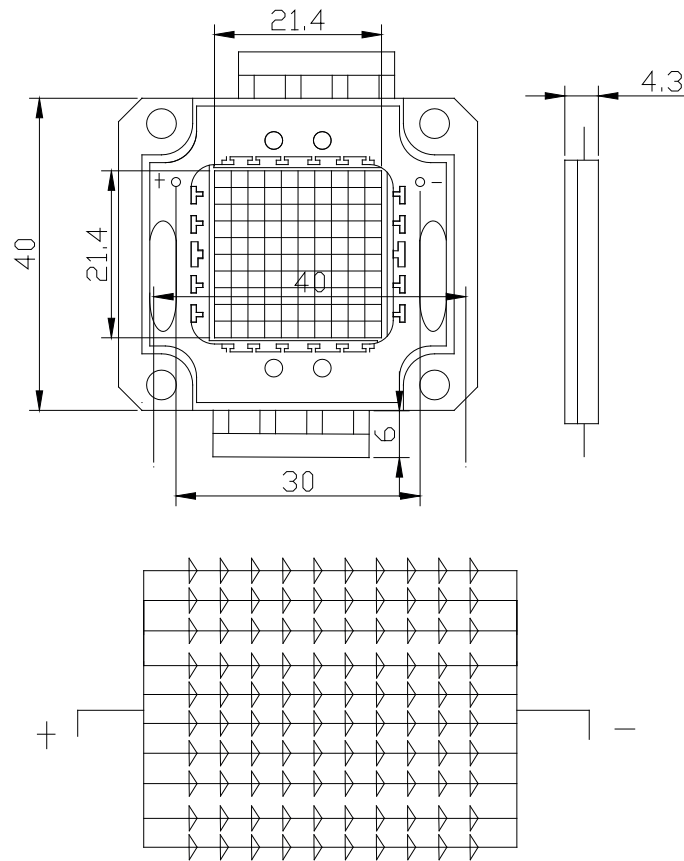
APPROVED SIGNATURES		

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QUALITY DEPT.	ENGINEERING DEPT.	PRODUCER

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## ■ Mechanical Dimensions:



### Note:

1. All dimensions are in millimeters.
2. All dimensions without tolerances are for reference only.
3. Material as follows:

Package: Heat-Resistant Polymer  
Electrodes: Cu Plating Copper Alloy

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## ■ Absolute Maximum Ratings (Ta = 25°C) :

Items	Symbol	Absolute maximum Rating	Unit
		White	
DC Forward Current	I <sub>F</sub>	3500	mA
Peak Pulse Forward Current*	I <sub>FP</sub>	3850	mA
Reverse Voltage	V <sub>R</sub>	5	V
LED Junction Temperature	T <sub>j</sub>	80	°C
Operating Temperature	T <sub>op</sub>	-40 ~ +80	°C
Storage Temperature	T <sub>stg</sub>	-40 ~ +100	°C
Soldering Temperature	T <sub>sol</sub>	Max.260°C for 10 sec Max	

\*Pulse width ≤ 0.1msec duty ≤ 1/10

## ■ Typical Electrical & Optical Characteristics ( Ta = 25°C):

Part No	Color Temperature	Forward Voltage(V)			Test Condition	Viewing Angle (Typ.)	Luminous Flux (lm)
		Min.	Typ.	Max.			
HP100	5500-6000K	30	--	35	I <sub>F</sub> = 3500mA	120	11000-12000LM

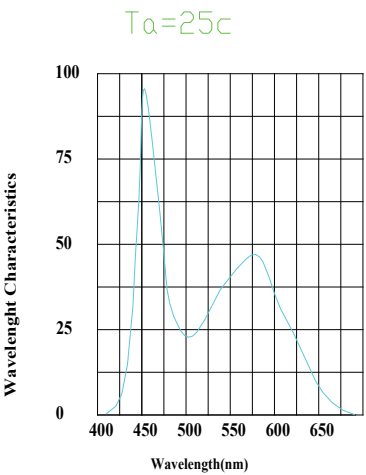
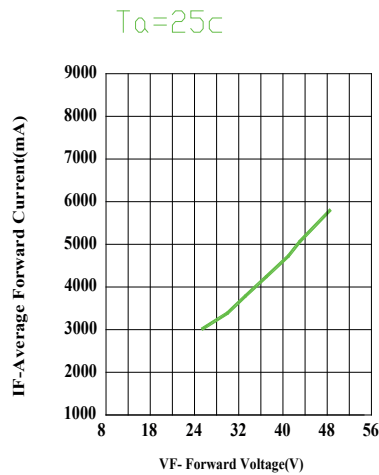
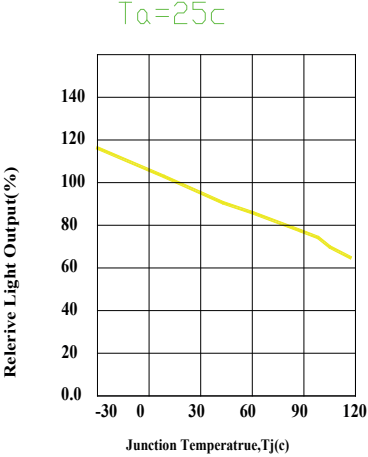
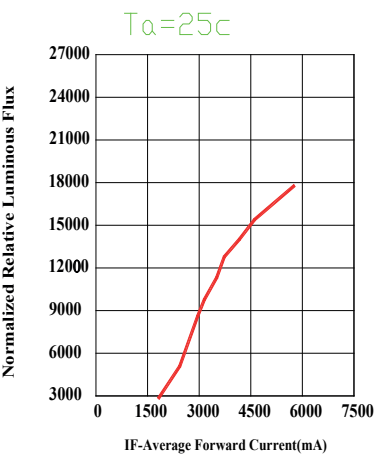
## ■ Notes:

- 1.Absolute maximum ratings Ta=25°C
- 2.Tolerance of measurement of forward voltage±0.1V.
- 3.Tolerance of measurement of Luminous Flux ±15%.

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■ Typical Electrical/ Optical Characteristics Curves  
(Ta=25°C Unless Otherwise Noted):

## Forward Current Characteristics



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## ■ Reliability

### 1. Test Items And Results

Classification	Test Item	Reference Standard	Test Conditions	Duration	Units Tested	Number of Damaged	
Operation Test	Operating Life Test		$T_A=25^{\circ}\text{C}\pm 5^{\circ}\text{C}$ , IF=3500mA	1000 Hrs	22	0/22	
Environment Test	High Temperature Storage	JEITA ED-4701 200 201	$T_A=100^{\circ}\text{C}\pm 5^{\circ}\text{C}$	1000 Hrs	22	0/22	
	Low Temperature Storage	JEITA ED-4701 200 201	$T_A= - 40^{\circ}\text{C}\pm 5^{\circ}\text{C}$	1000 Hrs	22	0/22	
	Temperature. & Humidity Storage		$T_A=85^{\circ}\text{C}\pm 5^{\circ}\text{C}$ , RH=85% $\pm 5\%$ RH	1000 Hrs	22	0/22	
	Thermal Shock	JEITA ED-4701 300 307	$-40^{\circ}\pm 5^{\circ}\text{C} \leftrightarrow +85^{\circ}\text{C}\pm 5^{\circ}\text{C}$ 30min dwell / 5 min transfer	20 Cycles	22	0/22	
Soldering Test	Solder ability		$240\pm 5^{\circ}\text{C}$ , 30 $\pm 1$ sec	1 time Over 95%Wetting	22	0/22	
	Resistance to Soldering Heat		$260\pm 5^{\circ}\text{C}$ , 10 $\pm 1$ sec	1 time	22	0/22	

### 2. Failure criteria

- Electrical Failures:
  - $V_F$  shift% >10%
  - $IR(V_R=5V)>100\mu A$
- Light Output Degradation:
  - Flux Degradation% > 50% max ;> 35% average
- Visual Failures:
  - Broken or damaged package or lead
  - Solder ability < 95% Wetting
  - Dimension out of tolerance
  - Discolor of lens

■ Note : It is required that the LEDs should be attached heat-sink when these LEDs are Operating.

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## 1) Reflow Conditions ( Pb Free )

Reflow Frequency : 2 times max.

