

MCD Electronics Inc.

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DATA SHEET

PART NO. : MCDL-5013UBC-TL

REV : A / 2

CUSTOMER'S APPROVAL : _____ DCC : _____

DRAWING NO. : DS-35-06-0126

DATE : 2006-11-22

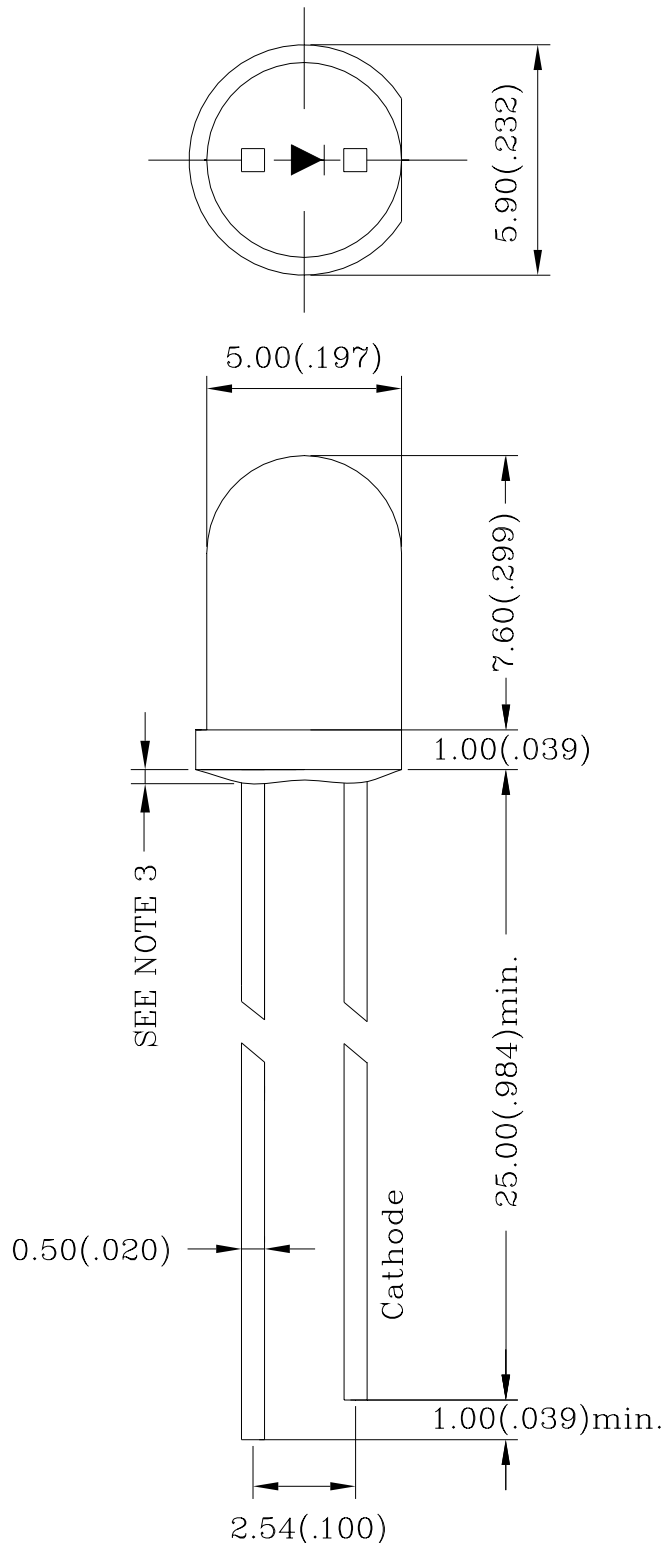
Page : 1

5.0 mm DIA LED LAMP

MCDL-5013UBC-TL

REV:A/2

PACKAGE DIMENSIONS



ITEM	MATERIALS
RESIN	Epoxy Resin
LEAD FRAME	Sn Plating iron Alloy

Note:

1. All Dimensions are in millimeters.
2. Tolerance is $\pm 0.25\text{mm}$ (0.010 ") Unless otherwise specified.
3. Protruded resin under flange is 1.5mm (0.059 ") max.
4. Lead spacing is measured where the leads emerge from the package.
5. Specification are subject to change without notice
6. highlight <-400V the led can withstand the max static level when assembling or operation (HBM).
7. The lamps have sharp and hard points that may injure human eyes or fingers etc., so please pay enough care in the handling.

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FEATURES

- * SUITABLE HIGH PULSE CURRENT OPERATION
- * EXTRA HIGH RADIANT INTENSITY
- * HIGH RELIABILITY
- * LOW FORWARD VOLTAGE
- * Pb FREE PRODUCTS

CHIP MATERIALS

- * Dice Material : GaInN/GaN
- * Light Color : ULTRA BLUE
- * Lens Color : WATER CLEAR

ABSOLUTE MAXIMUM RATING : (Ta = 25°C)

SYMBOL	DESCRIPTION	ULTRA BLUE	UNIT
PD	Power Dissipation Per Chip	120	mW
VR	Reverse Voltage Per Chip	5	V
IF	Average Forward Current Per Chip	30	mA
-	Derating Linear From 25°C Per Chip	0.4	mA/°C
Topr	Operating Temperature Range	-40°C to 85°C	
Tstg	Storage Temperature Range	-40°C to 85°C	

ELECTRO-OPTICAL CHARACTERISTICS : (Ta = 25°C)

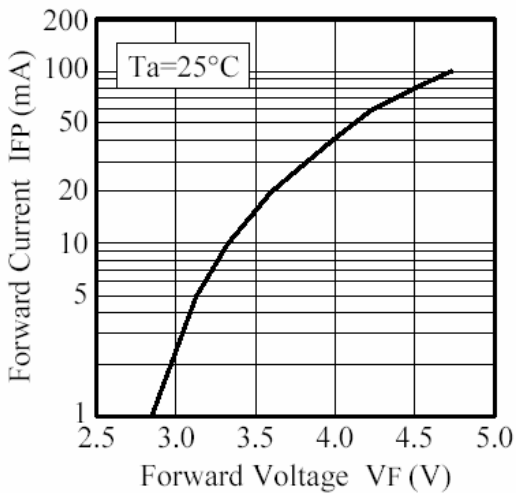
SYMBOL	DESCRIPTION	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
VF	Forward Voltage	IF = 20mA		3.5	4.0	V
IR	Reverse Current	VR = 5V			100	μA
λD	Dominant Wavelength	IF = 20mA		470		nm
Δλ	Spectral Line Half-Width	IF = 20mA		30		nm
2θ1/2	Half Intensity Angle	IF = 20mA		18		deg
IV	Luminous Intensity	IF = 20mA		6000		mcd

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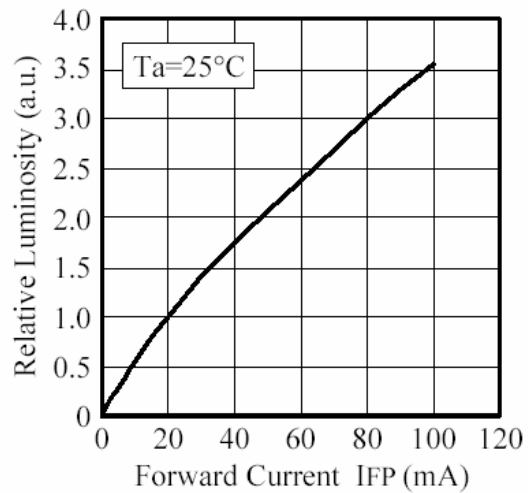
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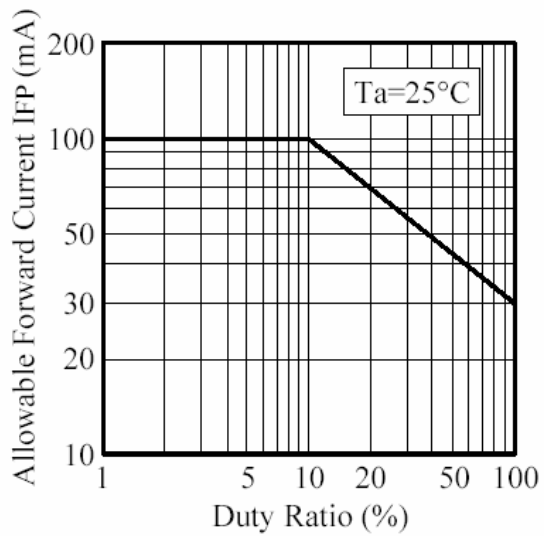
■ Forward Voltage vs. Forward Current



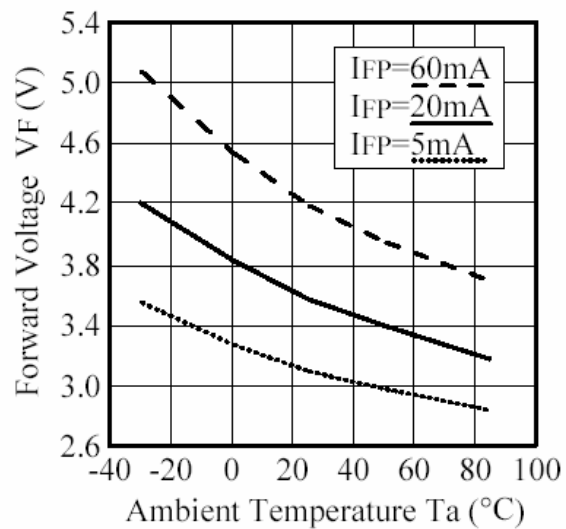
■ Forward Current vs. Relative Luminosity



■ Duty Ratio vs. Allowable Forward Current



■ Ambient Temperature vs. Forward Voltage



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