MCD Electronics Inc.
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DATA SHEET

PART NO. : MCDL-5013BGC-TL

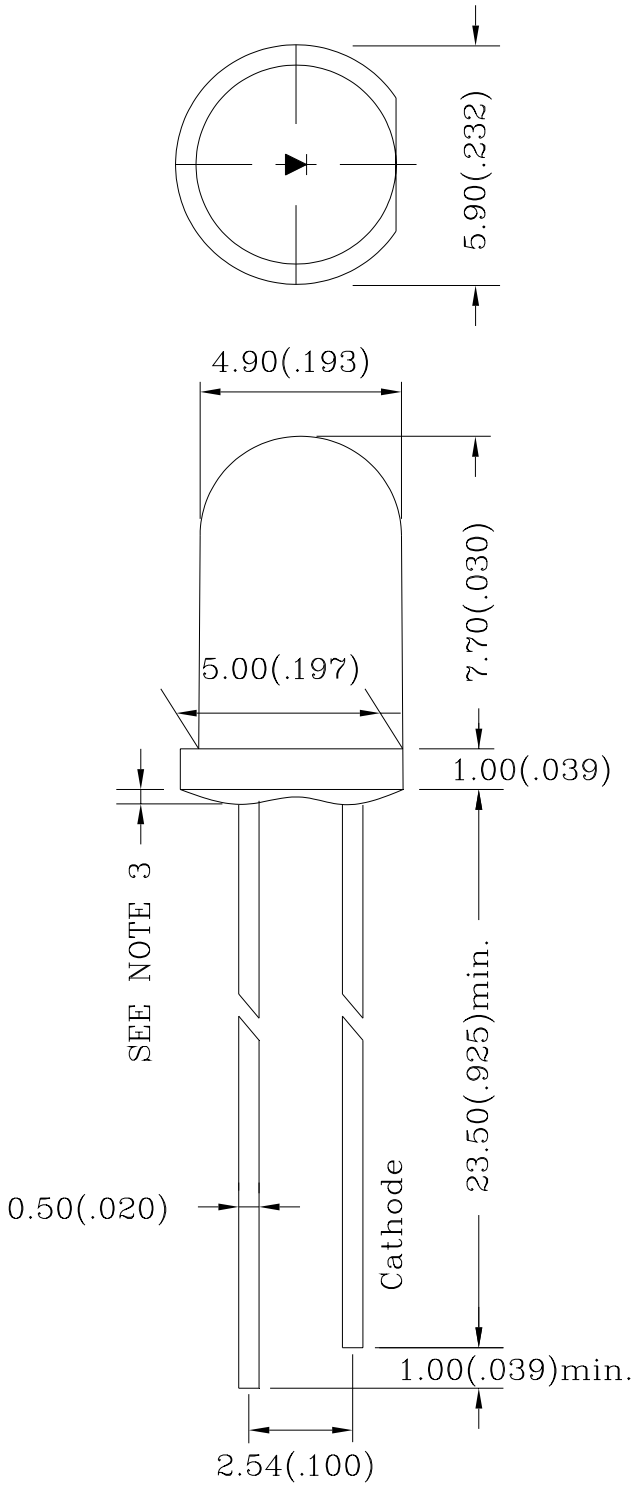
REV : A / 1

5.0 mm DIA LED LAMP

MCDL-5013BGC-TL

REV:A / 1

PACKAGE DIMENSIONS



ITEM	MATERIALS
RESIN	Epoxy Resin
LEAD FRAME	Sn Plating iron Alloy

Note:

1.All Dimensions are in millimeters.

2.Tolerance is ±0.25mm(0.010 ")
Unless otherwise specified.

3.Protruded resin under flange
is 1.5mm(0.059 ") max.

5.0 mm DIA LED LAMP

MCDL-5013BGC-TL

REV:A / 1

FEATURES

* High-brightness
* High reliability
* Low-voltage characteristics
* Narrow view angle
* Pb FREE Products
* RoHS Compliant

CHIP MATERIALS

* Dice Material : GaInN / GaN
* Light Color : ULTRA PURE GREEN
* Lens Color : WATER CLEAR

ABSOLUTE MAXIMUM RATING : (Ta = 25°C)

SYMBOL	DESCRIPTION	ULTRA PURE GREEN	UNIT
P_D	Power Dissipation Per Chip	120	mW
V_R	Reverse Voltage Per Chip	5	V
I_F	Average Forward Current Per Chip	30	mA
I_{FP}	Pulse Forward Current(Duty－0.1,1KHz)	100	mA
-	Derating Linear From 25°C Per Chip	0.4	mA/°C
T_{opr}	Operating Temperature Range	-25°C to 80°C	
T_{stg}	Storage Temperature Range	-25°C to 80°C	
E_{sd}	the led can withstand the max static level when assembling or operation (HBM)	<3000V	

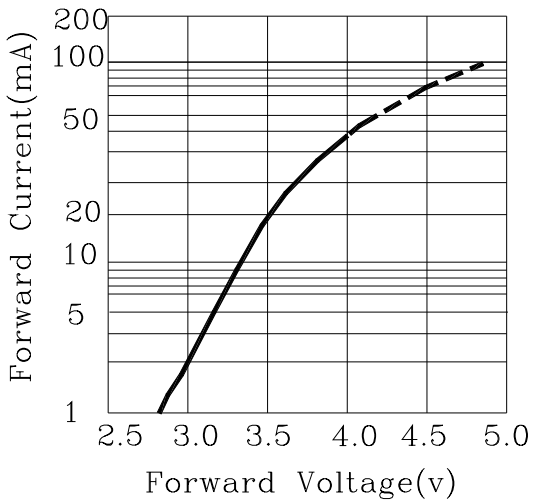
IFP Condition : Pulse Width≤10msec, 10% duty cycle

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

SYMBOL	DESCRIPTION	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
V_F	Forward Voltage	I_F = 20mA		3.5	4.0	V
I_R	Reverse Current	V_R = 5V			100	μA
λ_D	Dominant Wavelength	I_F = 20mA		510		nm
$\Delta\lambda$	Spectral Line Half-Width	I_F = 20mA		22		nm
$2\theta 1/2$	Half Intensity Angle	I_F = 20mA		30		deg
I_V	Luminous Intensity	I_F = 20mA		11000		mcd

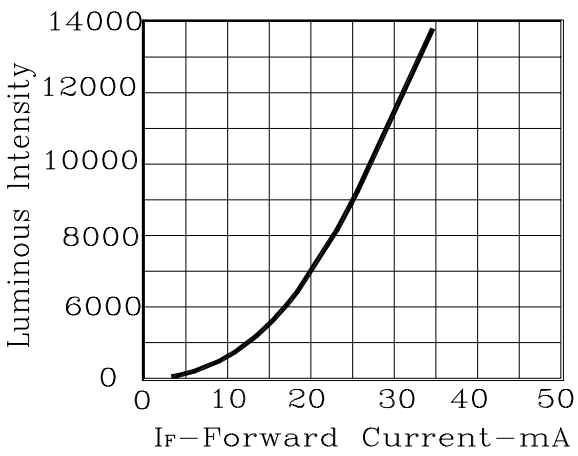
■ TJ= 25℃

Forward Current Vs
Forward Voltage

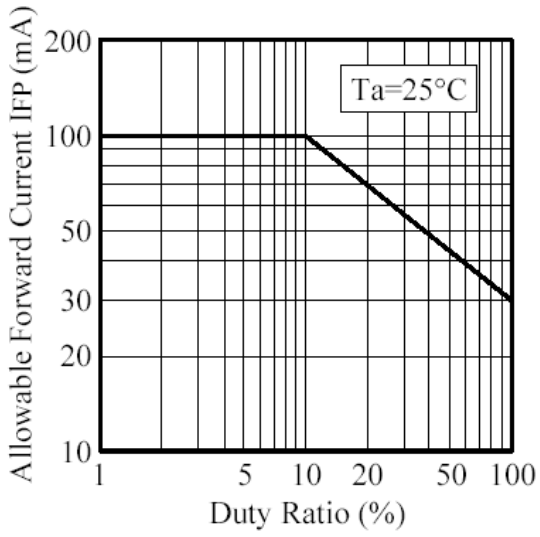


■ TJ= 25℃

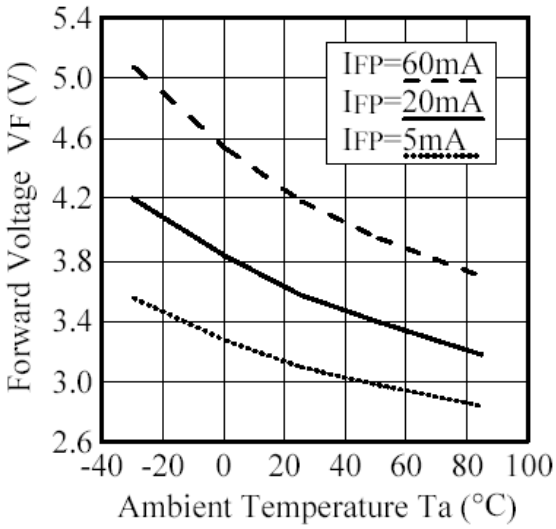
Luminous Intensity VS.
Forward Current



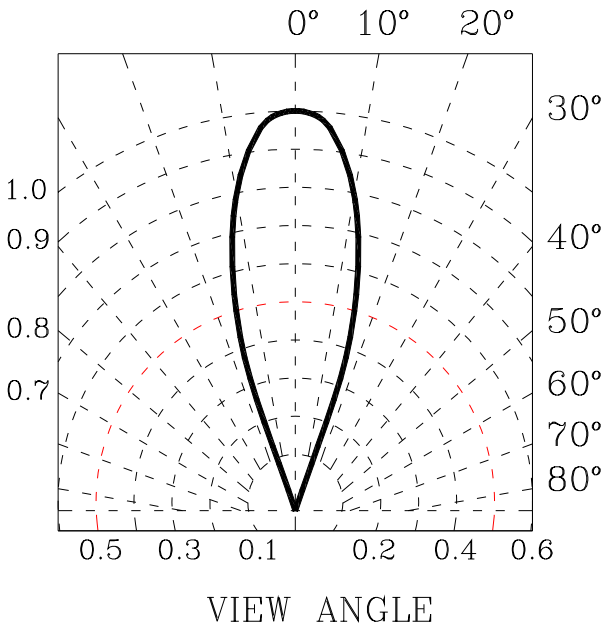
■ Duty Ratio vs.
Allowable Forward Current



■ Ambient Temperature vs.
Forward Voltage



•VIEWING ANGLE



•WAVELENGTH(NM)