

## GNS-4013BUE-21

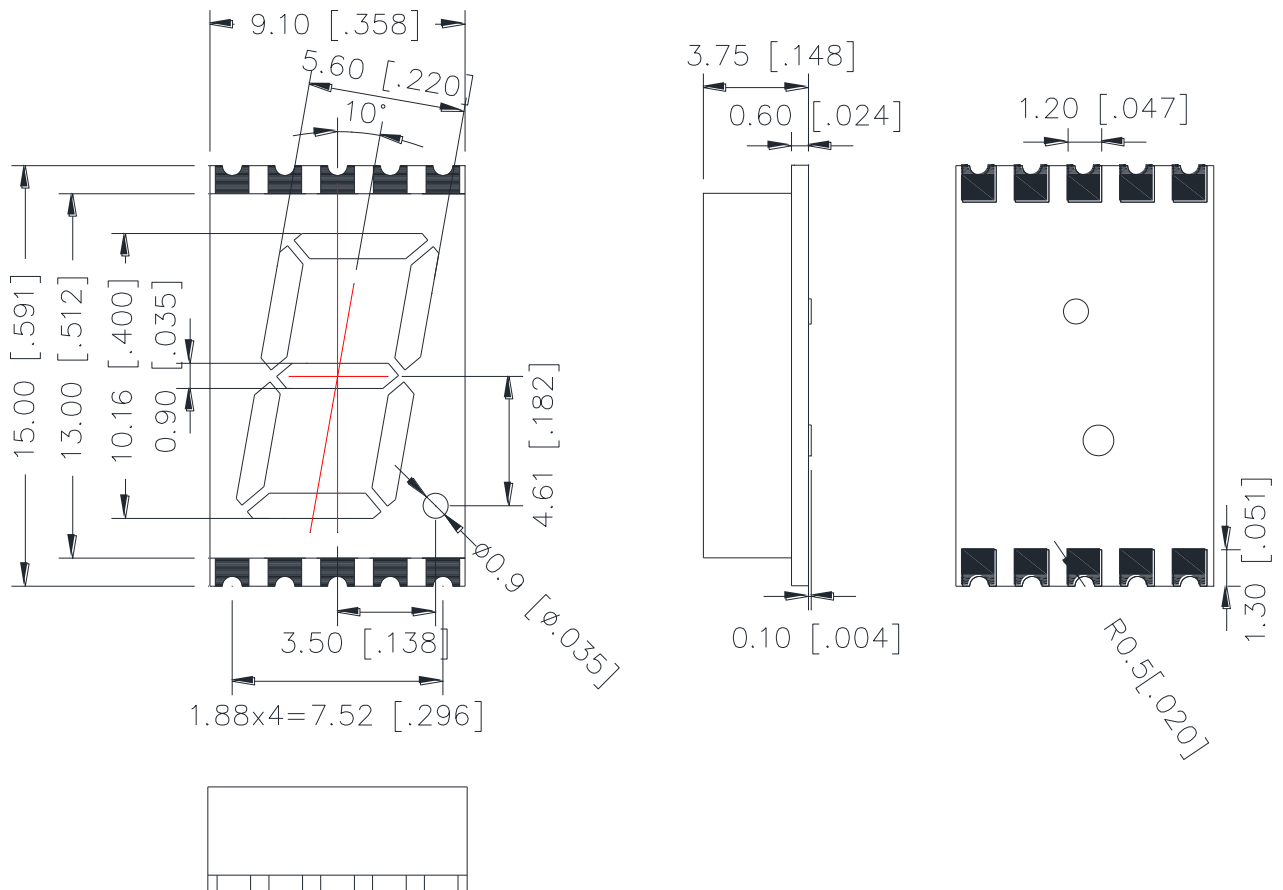
### 1. 产品描述 DESCRIPTION:

- 灰色显示面, 白色笔段 Gray face, White Epoxy
- 共阳显示屏 Common Anode Display
- 红色显示, Red Color
- 符合 RoHS 要求 RoHS Compliant

### 2. 产品特征 FEATURES:

- 高可靠性和高稳定性 High intensity and reliability
- 高品质、和低功耗 High quality, Low power requirement
- IC 易兼容, 易装配 IC compatible , Easy assembly
- ESD1000V

### 3. 产品外形尺寸 Outer Dimension:

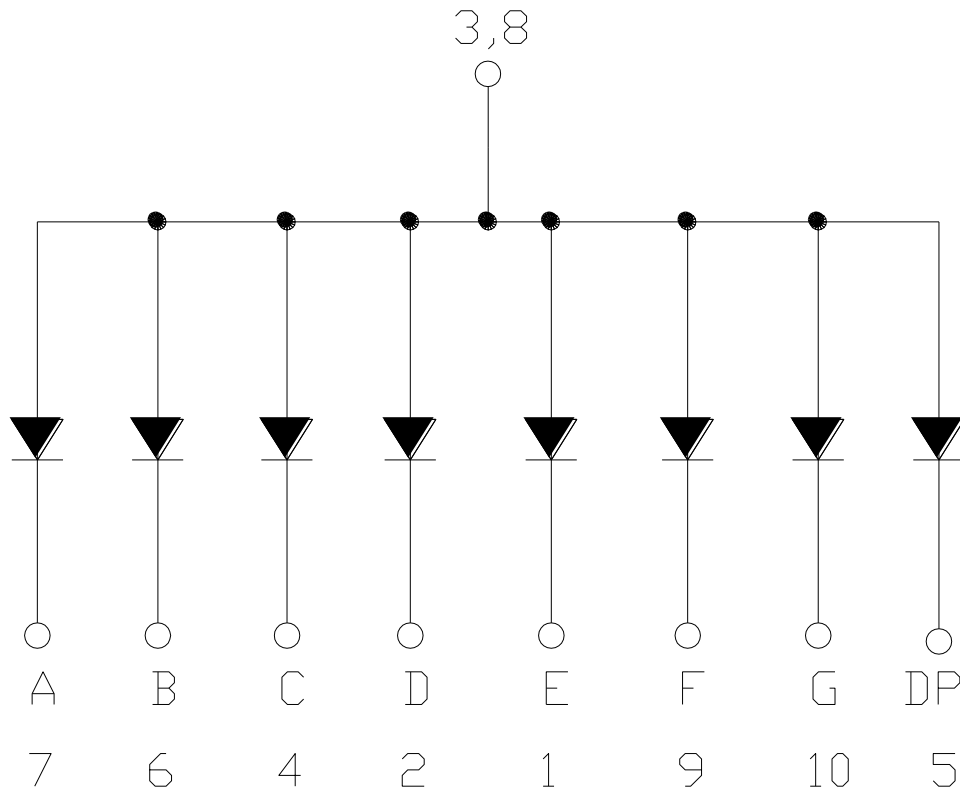
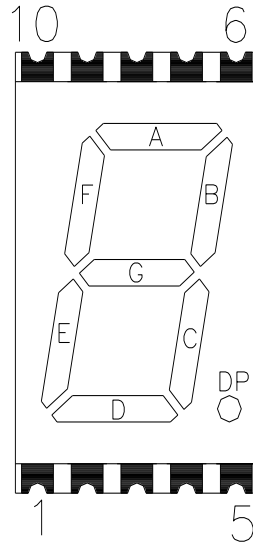


备注: 未标注公差尺寸均为±0.25mm

NOTES: All dimensions are in millimeters (inches) tolerance are ±0.25mm(0.010) unless otherwise noted

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**4. 产品线路图 INTERNAL CIRCUIT DIAGRAM**



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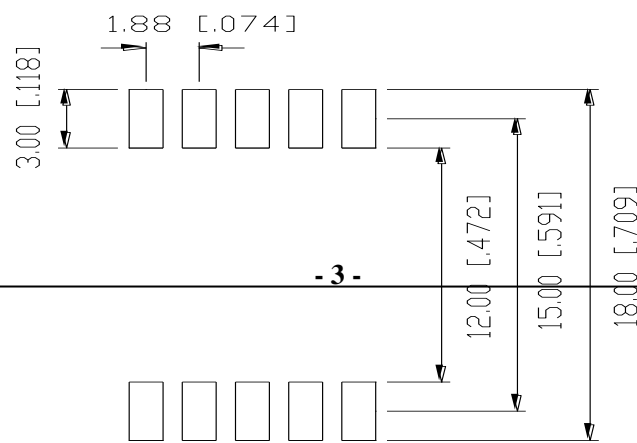
### 5、产品最大绝对参数值 (Ta: 25°C) ABSOLUTE MAXIMUM RATINGS AT Ta=25°C:

参数 (PARAMETER)	最大值 Max.	单位 UNIT
每段功耗 Power Dissipation Per Segment	52	mW
每段峰值电流 Peak Forward Current Per Segment (1/10duty cycle 0.1ms pulse width)	100	mA
每段平均正向电流 Average Forward Current Per Segment	20	mA
从室温线性减少 Derating Linear From 25°C Per Segment	0.33	mA/°C
每段反向电压 Reverse Voltage Per Segment	5	V
工作条件温度 Operating Temperature Range	-40°C to + 105°C	
储存温度 Storage Temperature Range	-40°C to + 105°C	
距离胶体 1.6mm 焊接, 温度 260°C, 焊接时间最多 3 秒 Lead Soldering Temperature 260°C at 1.6mm From Body for 3 seconds		

### 6、产品光电参数值 (Ta: 25°C) ELECTRICAL/OPTICAL CHARACTERISTICS AT Ta=25°C:

参数 PARAMETER	符号 SYMBOL	MIN.	TYP.	MAX.	UNIT	测试条件 Test condition
每段亮度 Luminous Intensity Per Segment	$I_v$	—	3	—	mcd	$I_F=10mA$
主波长 Dominant Wavelength	$\lambda_d$	—	640	—	nm	$I_F=20mA$
光谱半宽度 Spectral Line Half-Width	$\Delta\lambda$	—	30	—	nm	$I_F=20mA$
每颗正向电压 Forward Voltage Per Dice	$V_F$	—	2.0	2.6	V	$I_F=20mA$
每颗反向电流 Reverse Current Per Dice	$I_R$	—	—	50	$\mu A$	$V_R=5V$

### 7、推荐使用的焊盘尺寸 Recommended Soldering Pattern:



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### 8、电气/光学特性曲线 Electrical / Optical Characteristics Curves:

(Ta = 25°C Unless Otherwise Noted)

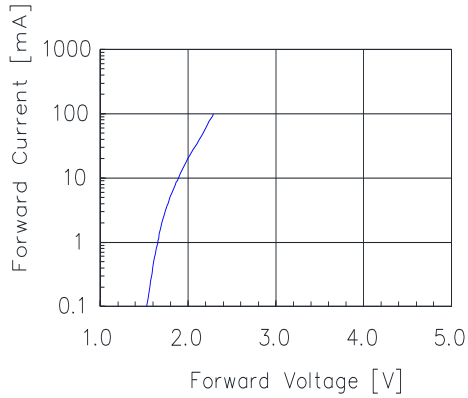


Fig 1. Forward Current vs. Forward Voltage

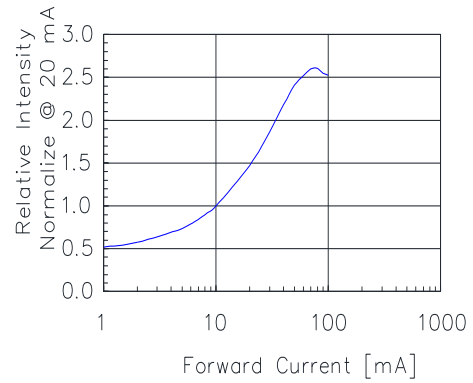


Fig 2. Relative Intensity vs. Forward Current

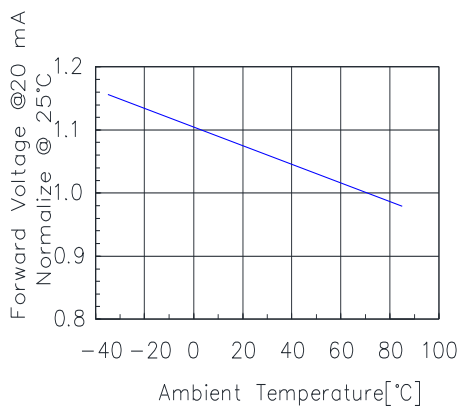


Fig 3. Forward Voltage vs. Temperature

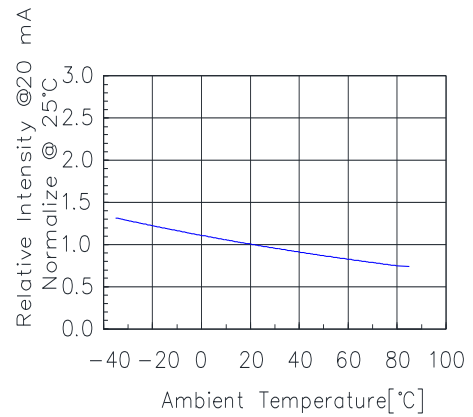


Fig 4. Relative Intensity vs. Temperature

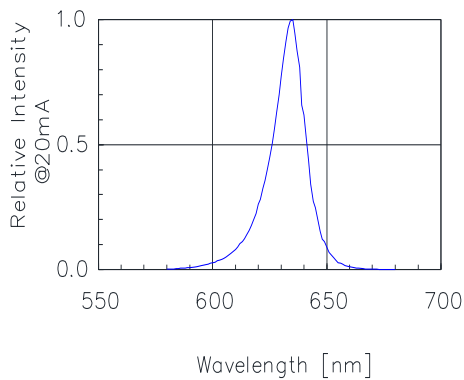
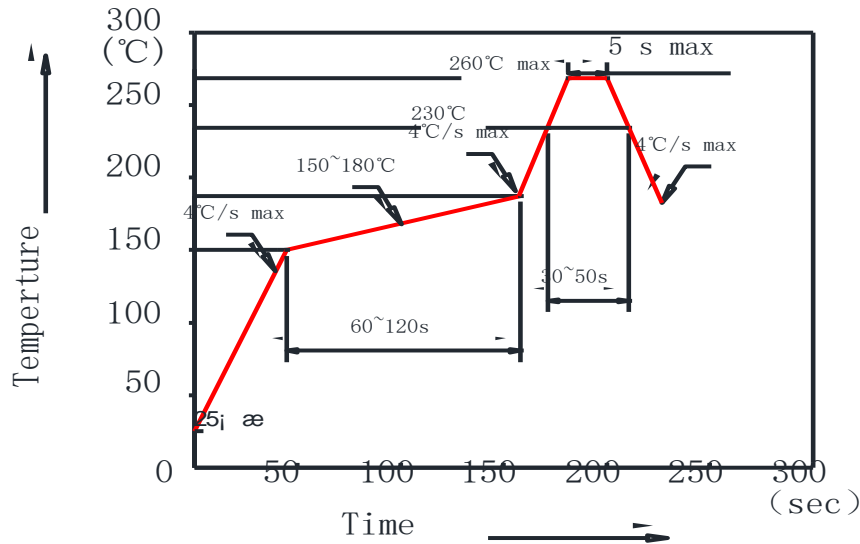


Fig 5. Relative Intensity vs. Wavelength

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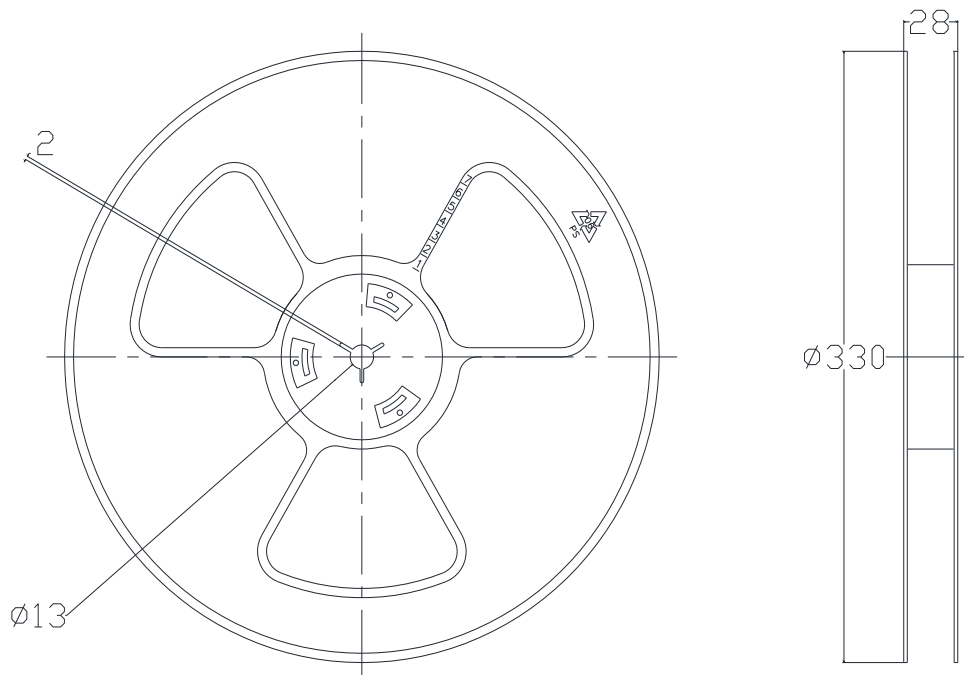
### 9、推荐的 SMT 焊接曲线 Recommended SMT condition:



NOTES:

1. We recommend the reflow temperature 245°C (+/-5°C). The maximum soldering temperature should be limited to 260°C.
2. Don't cause stress to the epoxy resin while it is exposed to high temperature.
3. Number of reflow process shall be 2 times or less.

### 10、卷轴规格 REEL DIMENSIONS:



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11、包装 PACKING & LABEL SPECIFICATIONS

