FEATURES

* 0.2 inch (5.08 mm) DIGIT HEIGHT.
* CONTINUOUS UNIFORM SEGMENTS.
* LOW POWER REQUIREMENT.
* EXCELLENT CHARACTERS APPEARANCE.
* HIGH BRIGHTNESS & HIGH CONTRAST.
* WIDE VIEWING ANGLE.
* SOLID STATE RELIABILITY.

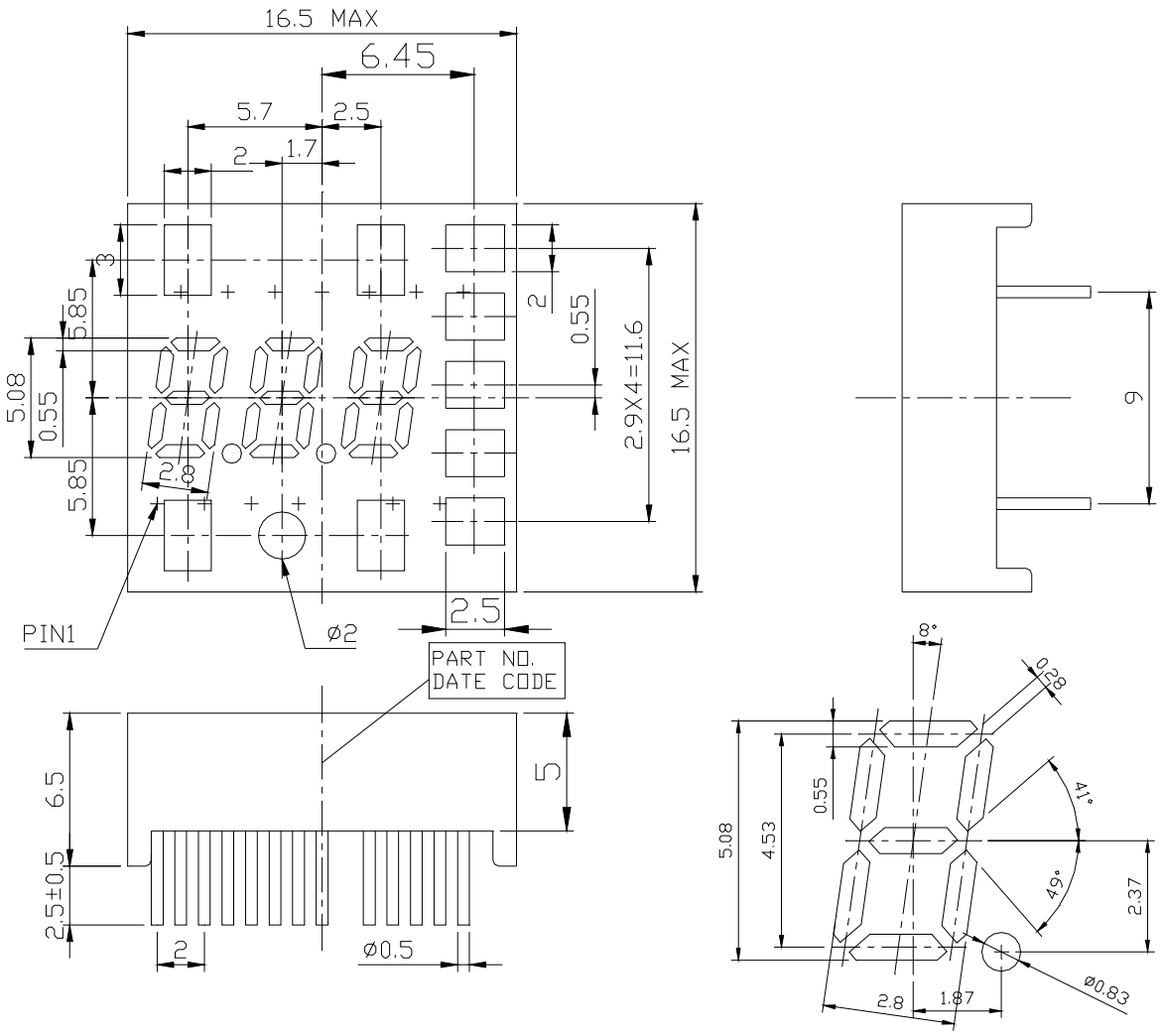
DESCRIPTION

The LTG-Y2K19M-01 is a 0.2 inch (5.08 mm) digit height seven segment display, with ten captions on it. The display utilizes Red Orange & pure green chips .The Red Orange LED chips are made from GaAsP on a transparent Gap substrate. The Pure Green LED chips are made from GaP on a transparent GaP substrate. This device have black face and white segments.

DEVICE

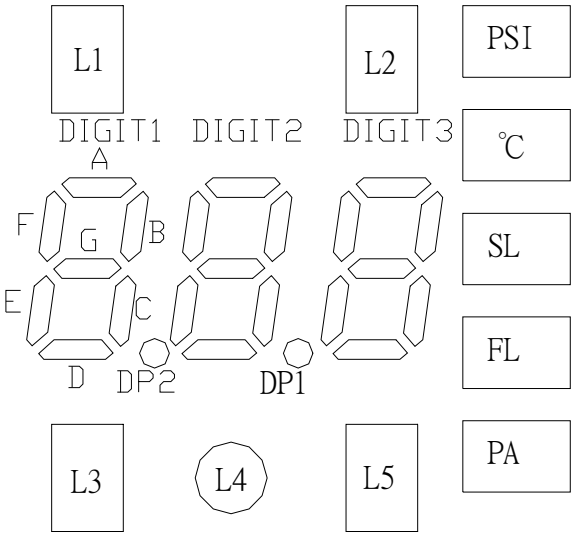
PART NO.	DESCRIPTION
MULTI-COLOR	Multiplex Common Anode
LTG-Y2K19M-01	

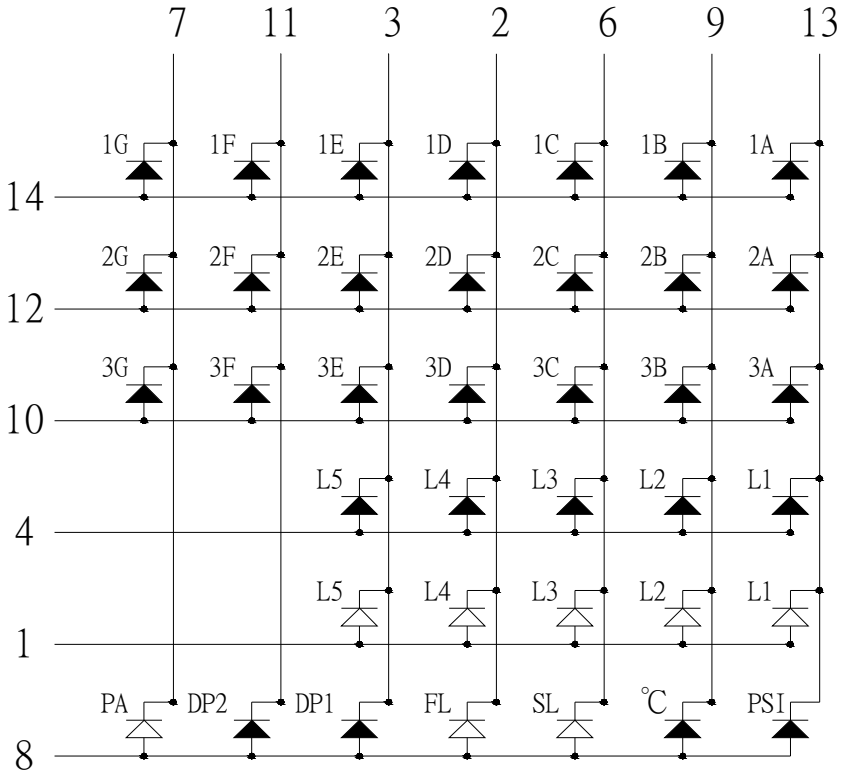
PACKAGE DIMENSIONS



NOTES:1. All dimensions are in millimeters. Tolerances are ± 0.25 mm unless otherwise noted.
2.Pin tip's shift tolerance is +/-0.4mm.

INTERNAL CIRCUIT DIAGRAM





PIN CONNECTION

No.	CONNECTION
1	COMMON ANODE (L1~L5)
2	CATHODE (1D~3D , L4 , FL)
3	CATHODE (1E~3E , L5 , DP1)
4	COMMON ANODE (L1~L5)
5	NO CONNECTION
6	CATHODE (1C~3C , L3 , SL)
7	CATHODE (1G~3G, PA)
8	COMMON ANODE (PA , DP1~2 , FL , SL ,℃ ,PSI)
9	CATHODE (1B~3B , L2 ,℃)
10	COMMON ANODE (3A~3G)
11	CATHODE (1F~3F, DP2)
12	COMMON ANODE (2A~2G)
13	CATHODE (1A~3A , L1 , PSI)
14	COMMON ANODE (1A~1G)

ABSOLUTE MAXIMUM RATING AT T_A=25℃

PARAMETER	PURE GREEN	RED ORANGE	UNIT
Power Dissipation Per Chip	75	75	mW
Peak Forward Current Per Chip (1/10 Duty Cycle, 0.1ms Pulse Width)	100	100	mA
Continuous Forward Current Per Chip Derating Linear From 25℃ Per Chip	25 0.28	25 0.28	mA mA/℃
Reverse Voltage Per Chip	5	5	V
Operating Temperature Range	-35℃ to +105℃		
Storage Temperature Range	-35℃ to +105℃		
Solder Temperature: max 260℃ for max 3sec at 1.6mm below seating plane			

ELECTRICAL / OPTICAL CHARACTERISTICS AT T_A=25°C

PURE GREEN (DIGIT)

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity Per Segment	I_V	800	2000		μcd	I_F=10mA
Peak Emission Wavelength	λp		555		nm	I_F=20mA
Spectral Line Half-Width	Δλ		30		nm	I_F=20mA
Dominant Wavelength	λd		557		nm	I_F=20mA
Forward Voltage Per Chip	V_F		2.1	2.6	V	I_F=10mA
Reverse Current Per Chip	I_R			100	μA	V_R=5V
Luminous Intensity Matching Ratio	I_V-m			2:1		I_F=10mA

Note: Luminous intensity is measured with a light sensor and filter combination that approximates the CIE (Commision Internationale De L'Eclairage) eye-response curve.

TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

(25°C Ambient Temperature Unless Otherwise Noted)

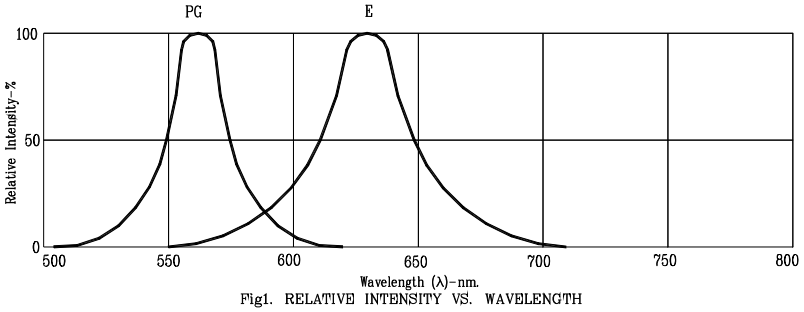


Fig1. RELATIVE INTENSITY VS. WAVELENGTH

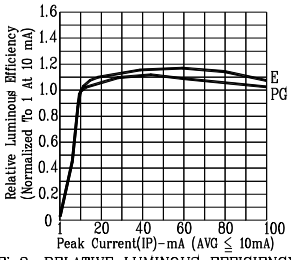


Fig2. RELATIVE LUMINOUS EFFICIENCY (LUMINOUS INTENSITY PER UNIT CURRENT) VS. PEAK CURRENT (REFRESH RATE 1KHz)

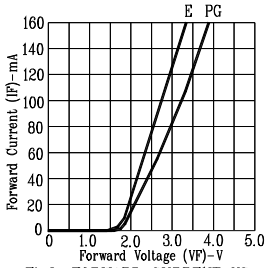


Fig3. FORWARD CURRENT VS. FORWARD VOLTAGE

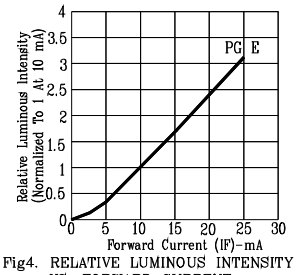


Fig4. RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

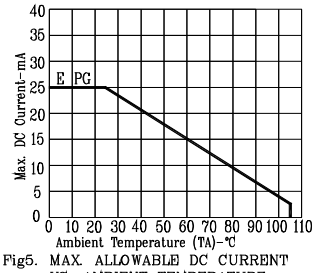


Fig5. MAX. ALLOWABLE DC CURRENT VS. AMBIENT TEMPERATURE.

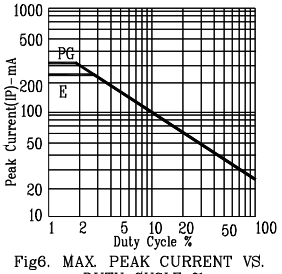


Fig6. MAX. PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE 1KHz)

NOTE: E=RED ORANGE G=PURE GREEN

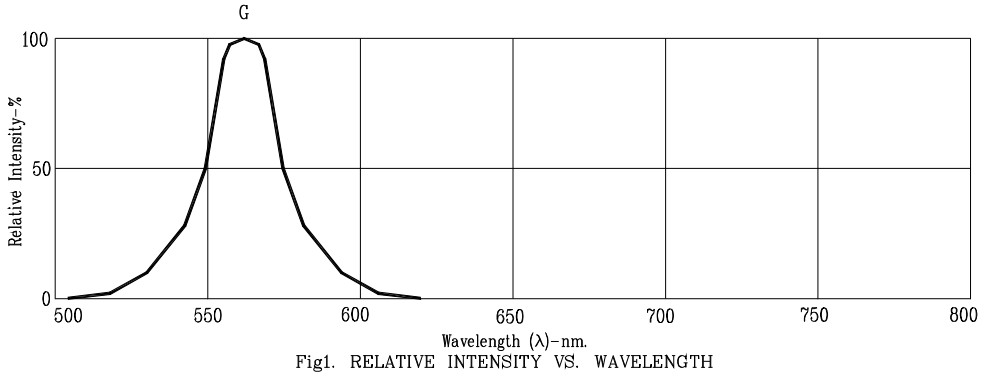


Fig1. RELATIVE INTENSITY VS. WAVELENGTH

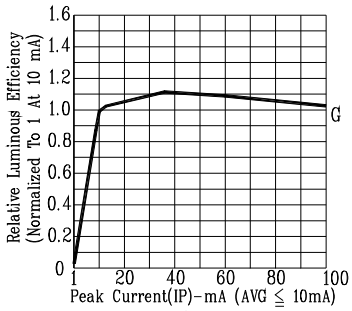


Fig2. RELATIVE LUMINOUS EFFICIENCY (LUMINOUS INTENSITY PER UNIT CURRENT) VS. PEAK CURRENT (REFRESH RATE 1KHz)

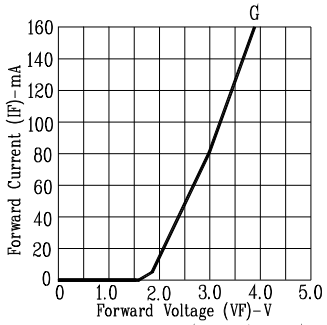


Fig3. FORWARD CURRENT VS. FORWARD VOLTAGE

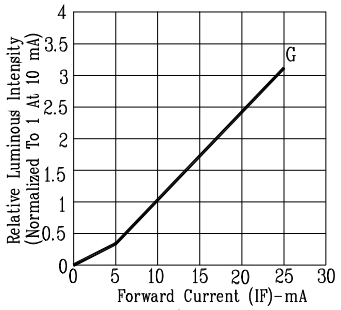


Fig4. RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

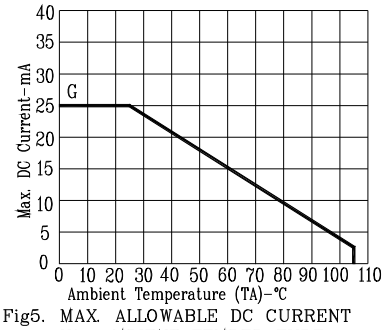


Fig5. MAX. ALLOWABLE DC CURRENT VS. AMBIENT TEMPERATURE.

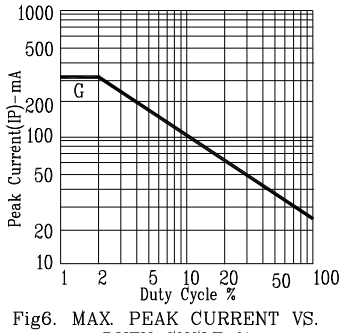


Fig6. MAX. PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE 1KHz)

NOTE: G=GREEN.