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### **FEATURES**

- \* RECTANGULAR LIGHT BAR
- \* LARGE, BRIGHT, UNIFORM LIGHT EMITTING AREAS
- \*LOW POWER REQUIREMENT
- \* HIGH BRIGHTNESS & HIGH CONTRAST
- \* SOLID STATE RELIABILITY
- \* CATEGORIZED FOR LUMINOUS INTENSITY

#### DESCRIPTION

The LTA-1000G-04 is a ten rectangular light sources array display designed for a variety of applications where a continuously large, bright source of light is required. This device uses GREEN LED chips (GaP epi on GaP substrate). The display has a gray face and white segments.

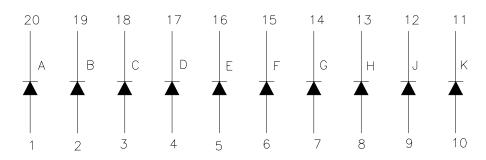
### **DEVICE**

PART NO.	DESCRIPTION			
GREEN	Universal			
LTA-1000G-04	Ten Rectangular Bar			

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## **PACKAGE DIMENSIONS** 5.08 [0.2] [0.1] 25.27 [0.995] .54 G $\vec{\alpha}$ [0.07] 1.78 NO.1 PART NO. DATE CODE 0.16 [0.4] BIN CODE [0.315] 7±0.5 [0.276±0.02 0.3 [0.012] 0.5 [0.02] 7.62 [0.3] 2.54X9 = 22.86 [0.9]NOTES: All dimensions are in millimeters. Tolerances are ± 0.25 mm (0.01") unless otherwise noted. INTERNAL CIRCUIT DIAGRAM



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## PIN CONNECTION

No.	CONNECTION		
1	Anode A		
2	Anode B		
3	Anode C		
4	Anode D		
5	Anode E		
6	Anode F		
7	Anode G		
8	Anode H		
9	Anode J		
10	Anode K		
11	Cathode K		
12	Cathode J		
13	Cathode H		
14	Cathode G		
15	Cathode F		
16	Cathode E		
17	Cathode D		
18	Cathode C		
19	Cathode B		
20	Cathode A		

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### ABSOLUTE MAXIMUM RATING

PARAMETER	MAXIMUM RATING	UNIT				
Power Dissipation Per Segment	75	mW				
Peak Forward Current Per Segment (Frequency 1Khz, 10% duty cycle)	100*	mA				
Continuous Forward Current Per Segment	25	mA				
Forward Current Derating from 25 <sup>o</sup> C	0.33	mA/ <sup>0</sup> C				
Reverse Voltage Per Segment	5	V				
Operating Temperature Range	-35°C to +85°C					
Storage Temperature Range -35°C to +85°C						
Soldering Conditions: 1/16 inch below seating plane for 3 seconds at 260°C						

<sup>\*</sup> see figure 5 to establish pulsed condition

## ELECTRICAL / OPTICAL CHARACTERISTICS AT Ta=25°C

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITION
Average Luminous Intensity Per Segment	Iv	540	2000		μcd	$I_F = 10mA$
Peak Emission Wavelength	λр		565		nm	$I_F = 20mA$
Spectral Line Half-Width	Δλ		30		nm	$I_F = 20mA$
Dominant Wavelength	λd		569		nm	$I_F = 20mA$
Forward Voltage Per Segment	$V_{\mathrm{F}}$		2.1	2.6	V	$I_F = 20 \text{mA}$
Reverse Current Per Segment	Ir			100	μΑ	$V_R = 5V$
Luminous Intensity Matching Ratio	Iv-m			2:1		$I_F = 10 \text{mA}$

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

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### TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES (25°C Ambient Temperature Unless Otherwise Noted) 100 8 RELATIVE INTENSITY 550 600 750 800 500 700 650 PEAK WAVELENGTH λp (nm) Fig1.Spectral Emission G 160 140 G FORWARD CURRENT, If (mA) 120 100 2.5 80 60 1.5 40 20 1.0 2.0 3.0 4.0 FORWARD VOLTAGE, Vf (Volts) 10 15 FORWARD CURRENT, If (mA) Fig2. Forward Current vs. Fig3. Relative Luminous Intensity vs. DC Forward Current Forward Voltage OPERATION IN THIS REGION REQUIRES TEMPERATURE DERATING OF IPEAK MAXIMUN 1000 500 (WW) € 35 10 2 5 10 20 50 DUTY CYCLE % (Frequency 1Khz) 10 20 30 40 50 60 70 80 90 100 110 AMBIENT TEMPERATURE, To (°C) Fig4. Maximun Allowable DC Current Fig5. Maximum Peak Current vs. Ambient Temperature vs. Duty Cycle % NOTE: G=GREEN.

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