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LED Display Product Data Sheet LTA-1000M-01

Spec No.: DS30-2006-172

Effective Date: 12/05/2006

Revision: -

LITE-ON DCC

RELEASE

BNS-OD-FC001/A4

LED DISPLAY

LTA-1000M-01 **DATA SHEET**

<u>Rev</u>	<u>Description</u>	<u>By</u>
-	Original Spec	<u>PHANOMKORN J.</u>

S P E C . N O . : DS30-2006-172

D A T E : 06/NOV/06

R E V . N O . : -

P A G E N O . : 0 O F 5

FEATURES

- * RECTANGULAR LIGHT BAR.
- * LARGE, BRIGHT, UNIFORM LIGHT EMITTING AREAS.
- * LOW POWER REQUIREMENT.
- * HIGH BRIGHTNESS & HIGH CONTRAST.
- * SOLID STATE RELIABILITY.
- * CATEGORIZED FOR LUMINOUS INTENSITY.
- * **LEAD-FREE PACKAGE**(ACCORDING TO ROHS)

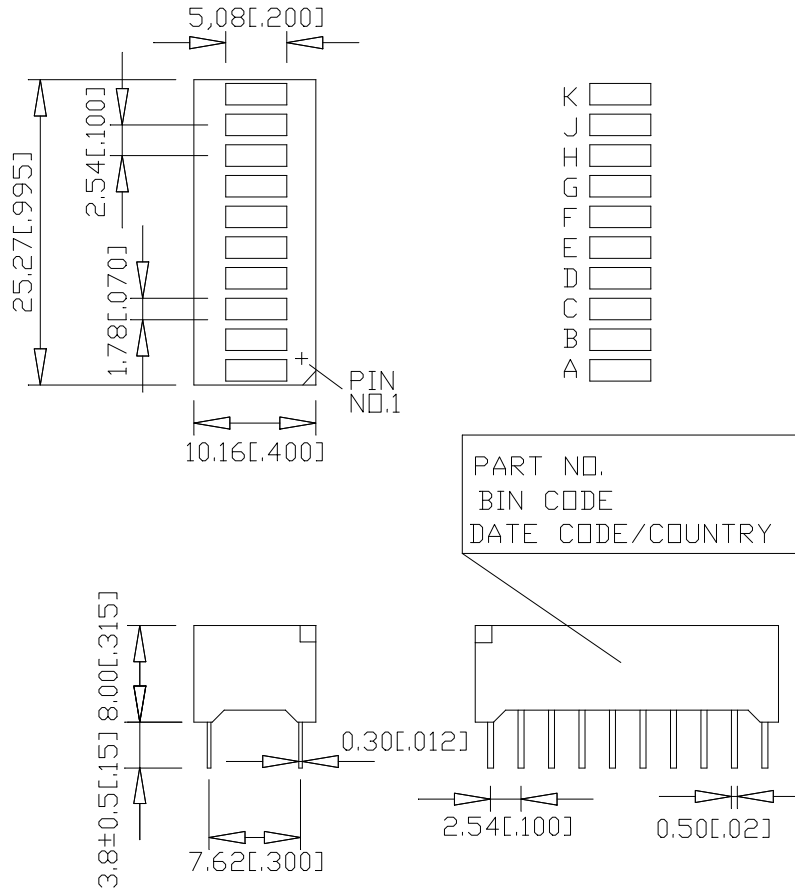
DESCRIPTION

The LTA-1000M-01 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 utilizes green LED chips, which are made from GaP on a transparent GaP substrate, This device utilizes yellow LED chips, which are made from GaAsP on a transparent GaP substrate and this device utilizes Hi-EFF red LED chips, which are made from GaAsP on a transparent GaP substrate, and has a black face and white segments.

DEVICE

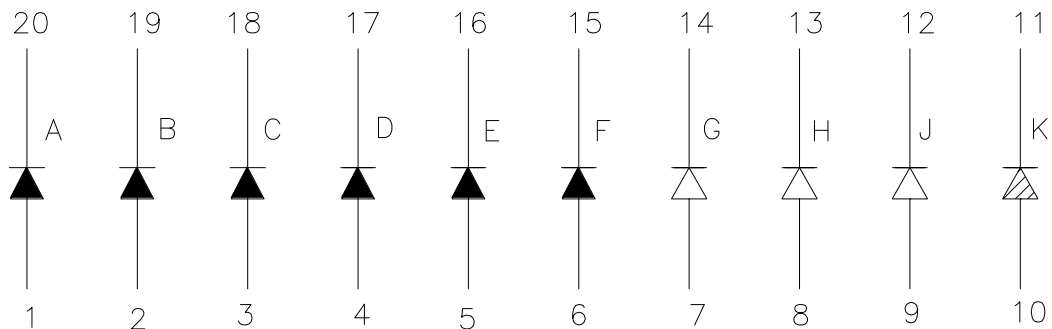
PART NO.	DESCRIPTION
MULTI COLOR	Universal
LTA-1000M-01	Ten Rectangular Bar

PACKAGE DIMENSIONS



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

INTERNAL CIRCUIT DIAGRAM



THE SIGN "▲" IS STANDARD FOR GREEN CHIP.
 THE SIGN "△" IS STANDARD FOR YELLOW CHIP.
 THE SIGN "▨" IS STANDARD FOR HI-EFF RED CHIP.

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

ABSOLUTE MAXIMUM RATING AT Ta=25°C

PARAMETER	GREEN	YELLOW	HI-EFF RED	UNIT
Power Dissipation Per Segment	75	60	75	mW
Peak Forward Current Per Segment (1/10 Duty Cycle, 0.1ms Pulse Width)	100	80	100	mA
Continuous Forward Current Per Segment	25	20	25	mA
Derating Linear From 25°C Per Segment	0.33	0.27	0.33	mA/°C
Reverse Voltage Per Segment	5	5	5	V
Operating Temperature Range	-35°C to +105°C			
Storage Temperature Range	-35°C to +105°C			
Soldering Conditions: 1/16 inch below seating plane for 3 seconds at 260°C or of temperature unit (during assembly) not over max temperature rating above.				

ELECTRICAL / OPTICAL CHARACTERISTICS AT Ta=25°C

GREEN

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	I _v	800	2800		μcd	I _F =10mA
Peak Emission Wavelength	λ _p		565		nm	I _F =20mA
Spectral Line Half-Width	Δλ		30		nm	I _F =20mA
Dominant Wavelength	λ _d		569		nm	I _F =20mA
Forward Voltage Per Segment	V _F		2.1	2.6	V	I _F =20mA
Reverse Current Per Segment	I _R			100	μA	V _R =5V
Luminous Intensity Matching Ratio	I _v -m			2:1		I _F =10mA

YELLOW

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	I _v	540	2000		μcd	I _F =10mA
Peak Emission Wavelength	λ _p		585		nm	I _F =20mA
Spectral Line Half-Width	Δλ		35		nm	I _F =20mA
Dominant Wavelength	λ _d		588		nm	I _F =20mA
Forward Voltage Per Segment	V _F		2.1	2.6	V	I _F =20mA
Reverse Current Per Segment	I _R			100	μA	V _R =5V
Luminous Intensity Matching Ratio	I _v -m			2:1		I _F =10mA

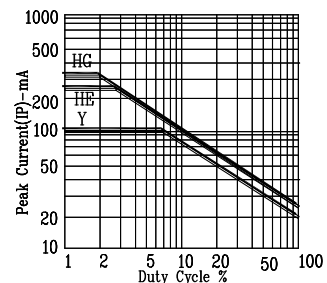
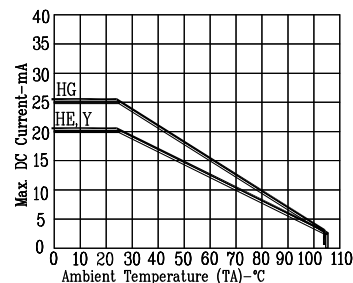
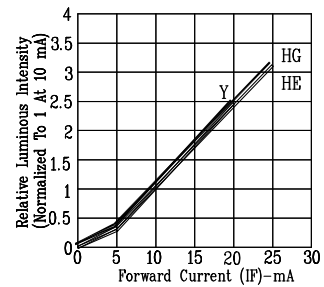
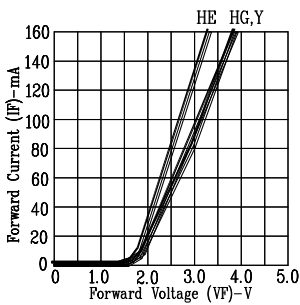
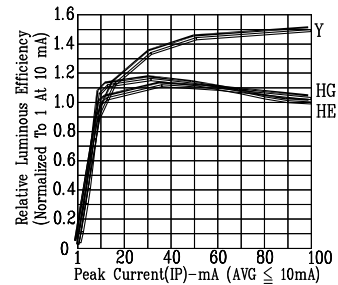
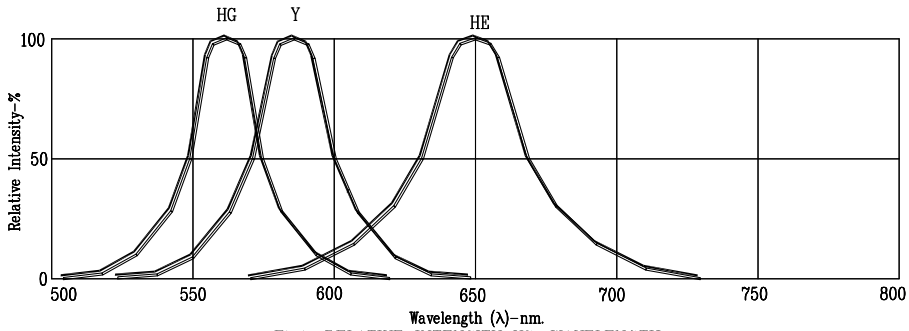
HI-EFF RED

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	I _v	540	2000		μcd	I _F =10mA
Peak Emission Wavelength	λ _p		650		nm	I _F =20mA
Spectral Line Half-Width	Δλ		40		nm	I _F =20mA
Dominant Wavelength	λ _d		630		nm	I _F =20mA
Forward Voltage Per Segment	V _F		2.1	2.6	V	I _F =20mA
Reverse Current Per Segment	I _R			100	μA	V _R =5V
Luminous Intensity Matching Ratio (Similar Light Area)	I _v -m			2:1		I _F =10mA

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

TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

(25°C Ambient Temperature Unless Otherwise Noted)



NOTE: HG=HI-EFF. GREEN, Y: YELLOW & HE=HI-EFF. RED