LITEON®
OPTOELECTRONICS

LED Display

Product Data Sheet

LTD-6402JS-02

Spec No.: DS30-2000-040

Effective Date: 03/09/2000

Revision: -

LITE-ON DCC

RELEASE

BNS-OD-FC001/A4

LITE-ON Technology Corp. / Optoelectronics
No.90,Chien 1 Road, Chung Ho, New Taipei City 23585, Taiwan, R.O.C.
Tel: 886-2-2222-6181 Fax: 886-2-2221-1948 / 886-2-2221-0660
http://www.liteon.com/opto

FEATURES

∗0.56 inch (14.22 mm) DIGIT HEIGHT.
∗CONTINUOUS UNIFORM SEGMENTS.
∗LOW POWER REQUIREMENT.
∗EXCELLENT CHARACTERS APPEARANCE.
∗HIGH BRIGHTNESS & HIGH CONTRAST.
∗WIDE VIEWING ANGLE.
∗SOLID STATE RELIABILITY.
∗CATEGORIZED FOR LUMINOUS INTENSITY.

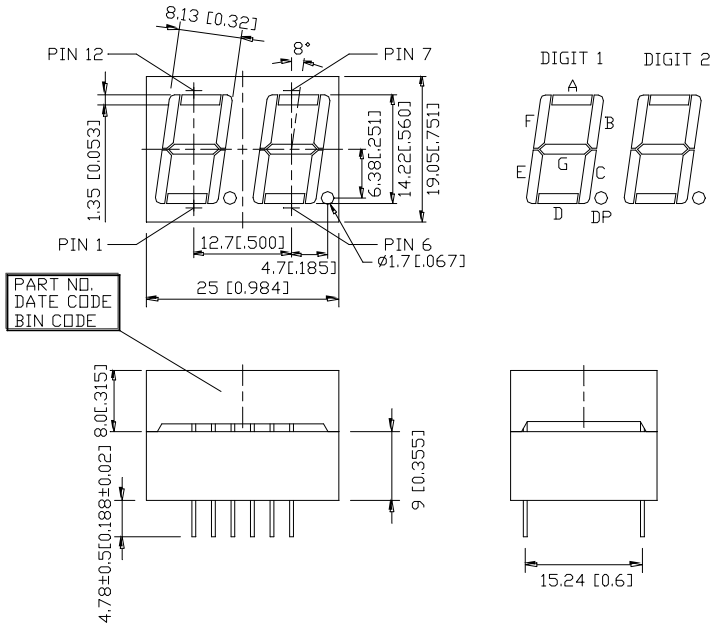
DESCRIPTION

The LTD-6402JS-02 is a 0.56 inch (14.22 mm) height digit display. The device utilizes AlInGaP yellow LED chips which are made from AlInGaP on a non-transparent GaAs substrate,and have light gray face and white segment color.This low current seven-segment display is designed to perform under low power consumption. It is tested and selected for it's excellent low current characteristics. It can be driven in low current condition and the segments are matched. This driving current as low as 1mA per segment is applicable.

DEVICE

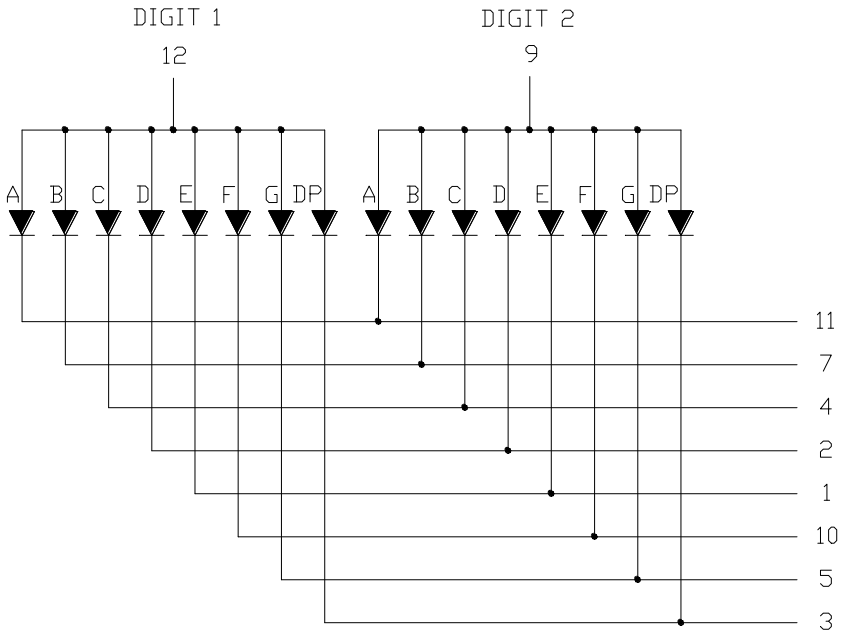
PART NO.	DESCRIPTION
ALINGAP YELLOW	Common Anode
LTD-6402JS-02	Rt. Hand Decimal

PACKAGE DIMENSIONS



NOTES: All dimensions are in millimeters. Tolerance is ± 0.25 mm (0.01“) unless otherwise noted.

INTERNAL CIRCUIT DIAGRAM



PIN CONNECTION

No.	CONNECTION
1	CATHODE E (DIGIT 1, DIGIT 2)
2	CATHODE D (DIGIT 1, DIGIT 2)
3	CATHODE D.P. (DIGIT 1, DIGIT 2)
4	CATHODE C (DIGIT 1, DIGIT 2)
5	CATHODE G (DIGIT 1, DIGIT 2)
6	NO CONNECTION
7	CATHODE B (DIGIT 1, DIGIT 2)
8	NO CONNECTION
9	COMMON ANODE (DIGIT 2)
10	CATHODE F (DIGIT 1, DIGIT 2)
11	CATHODE A (DIGIT 1, DIGIT 2)
12	COMMON ANODE (DIGIT 1)

ABSOLUTE MAXIMUM RATING AT Ta=25°C

PARAMETER	MAXIMUM RATING	UNIT
Power Dissipation Per Segment	75	mW
Peak Forward Current Per Segment (1/10 Duty Cycle, 0.1ms Pulse Width)	100	mA
Continuous Forward Current Per Segment Derating Linear From 25℃ Per Segment	25 0.28	mA mA/℃
Reverse Voltage Per Segment	5	V
Operating Temperature Range	-35℃ to +105℃	
Storage Temperature Range	-35℃ to +105℃	
Solder Temperature: max 260℃ for max 3sec at 1.6mm[1/16inch] below seating plane.		

ELECTRICAL / OPTICAL CHARACTERISTICS AT Ta=25°C

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	I_V	320	700		μcd	I_F=1mA
Peak Emission Wavelength	λp		588		nm	I_F=20mA
Spectral Line Half-Width	Δλ		15		nm	I_F=20mA
Dominant Wavelength	λd		587		nm	I_F=20mA
Forward Voltage Per Segment	V_F		2.05	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

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)

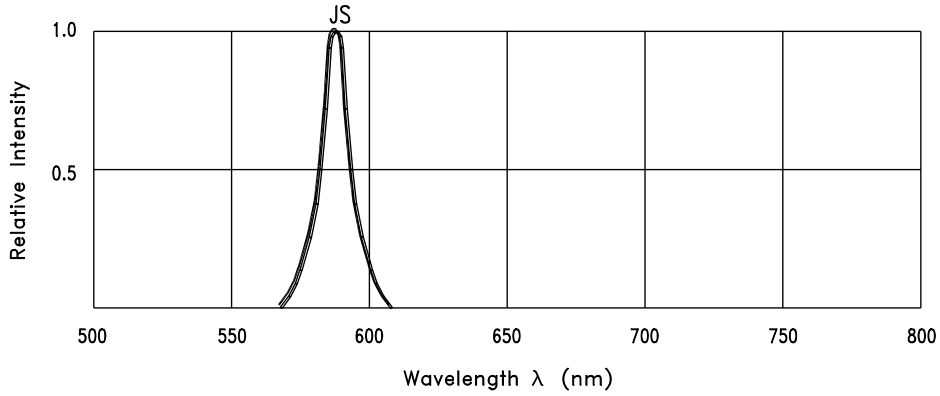


Fig.1 Relative Intensity vs. Wavelength

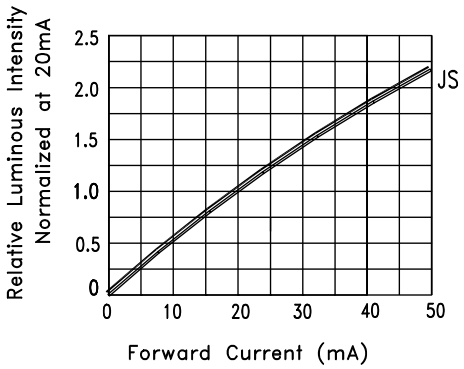


Fig.2 Relative Luminous Intensity vs. Forward Current

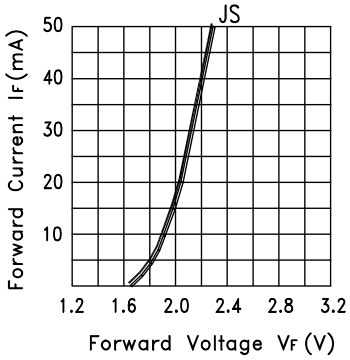


Fig.3 Forward Current vs. Forward Voltage

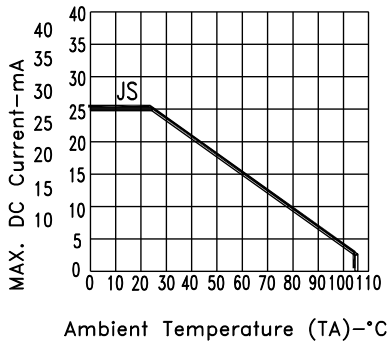


Fig.4 MAX. Allowable DC Current VS. Ambient Temperature.

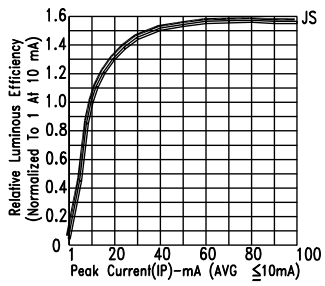


Fig5. RELATIVE LUMINOUS EFFICIENCY (LUMINOUS INTENSITY PER UNIT CURRENT) VS. PEAK CURRENT