LITEON®
OPTOELECTRONICS

LED Display

Product Data Sheet

LTF-3603G

Spec No.: DS30-2010-0010

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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

LED DISPLAY

LTF-3603G
DATA SHEET

REV	Description	By	DATE
-	New Spec	Richard Lin	2009/07/20

FEATURES

∗0.28 inch (7 mm) DIGIT HEIGHT
∗CONTINUOUS UNIFORM SEGMENTS
∗LOW POWER REQUIREMENT
∗EXCELLENT CHARACTERS APPEARANE
∗HIGH BRIGHTNESS & HIGH CONTRAST
∗WIDE VIEWING ANGLE
∗SOLID STATE RELIABILITY
∗**LEAD-FREE PACKAGE (ACCORDING TO ROHS)**

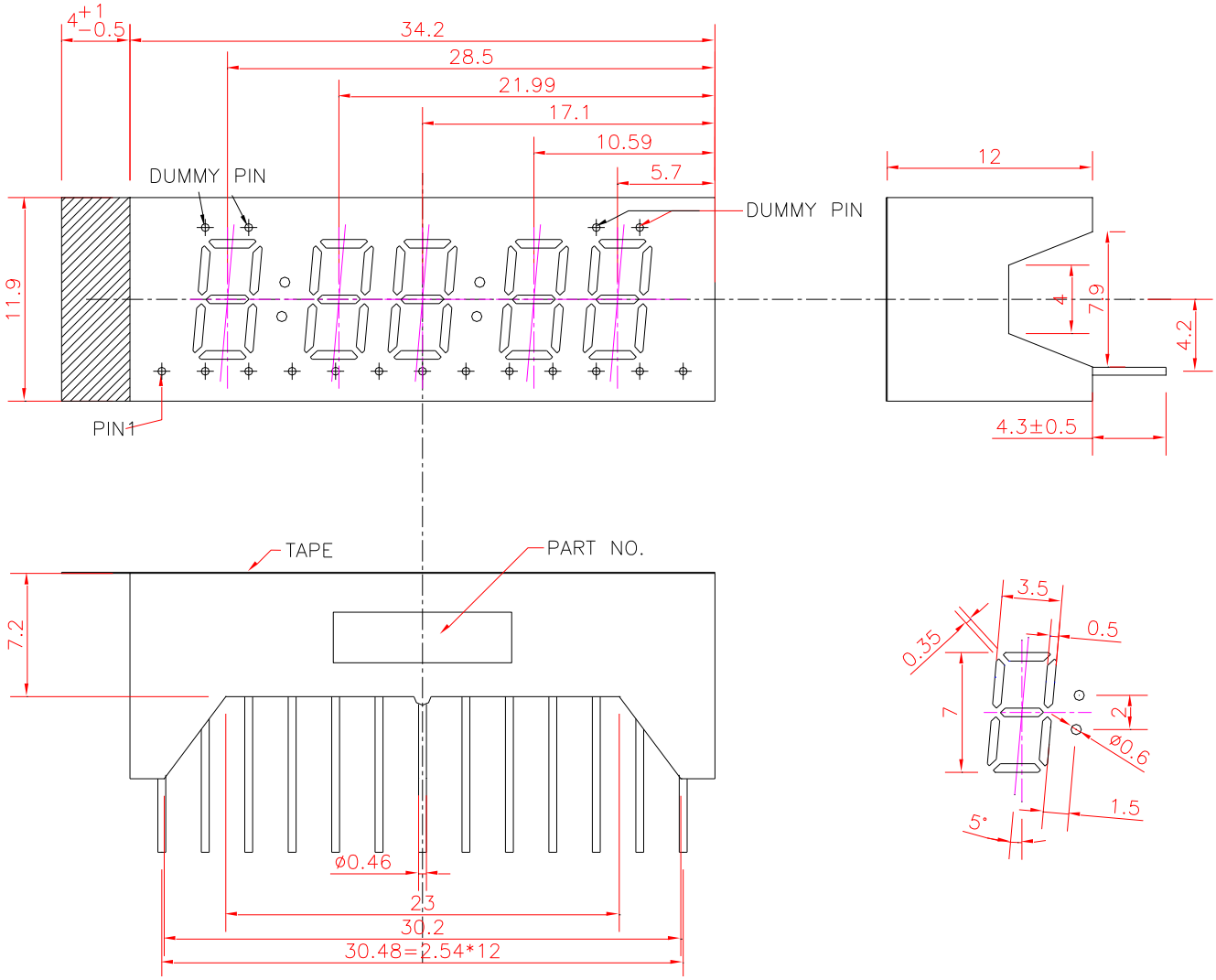
DESCRIPTION

The LTF-3603G is a 0.28 inch (7mm) digit height five digit seven-segment display. The device utilized GaP Green LED chips, which are made from GaP epi on GaP substrate. The device has a black face and white segments.

DEVICE

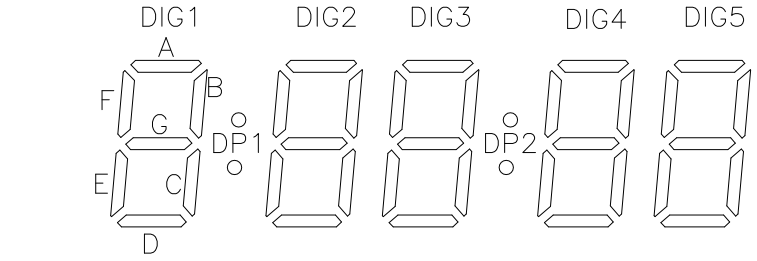
PART NO.	DESCRIPTION
GaP Green	Multiplex Common Anode
LTF-3603G	Rt. Hand Decimal

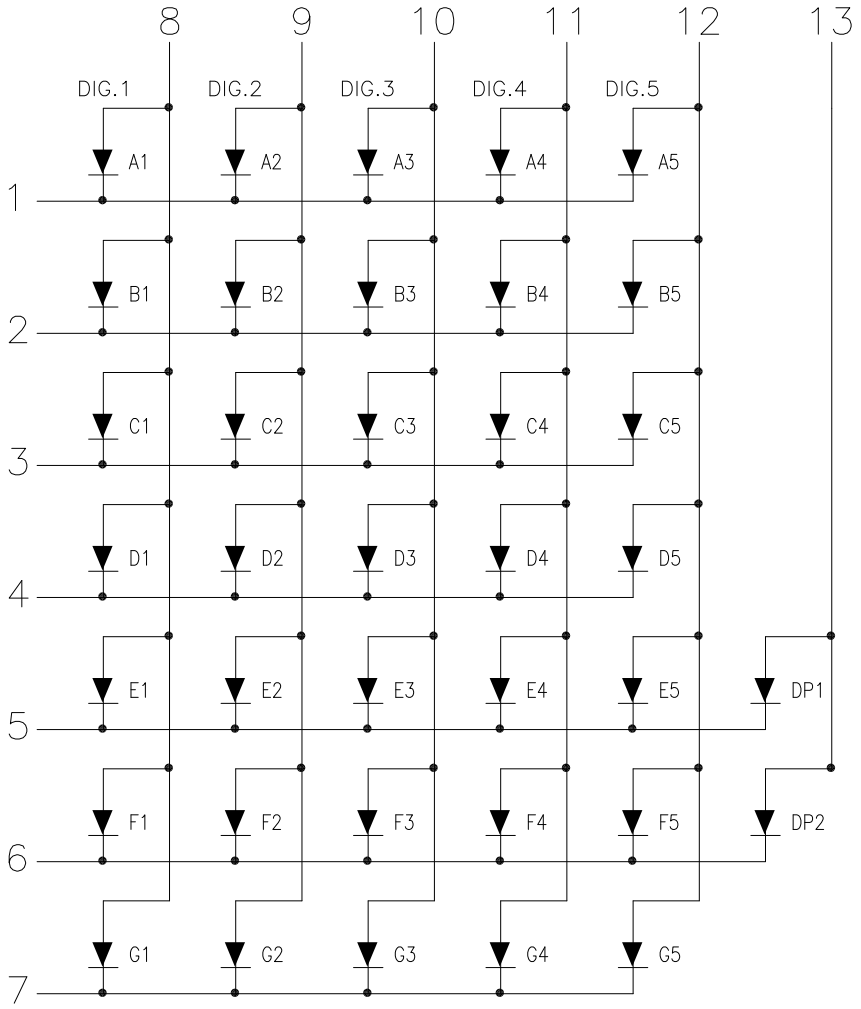
PACKAGE DIMENSIONS



NOTES: 1.All dimensions are in millimeters. Tolerances are ± 0.25 mm unless otherwise noted.
2. Pin tip's shift tolerance is +/- 0.4 mm. Tolerance of pin length is +/- 0.5 mm.

INTERNAL CIRCUIT DIAGRAM





PIN CONNECTION

No.	CONNECTION
1	CATHODE A1, A2, A3, A4, A5
2	CATHODE B1, B2, B3, B4, B5
3	CATHODE C1, C2, C3, C4, C5
4	CATHODE D1, D2, D3, D4, D5
5	CATHODE E1, E2, E3, E4, E5, DP1
6	CATHODE F1, F2, F3, F4, F5, DP2
7	CATHODE G1, G2, G3, G4, G5
8	COMMON ANODE DIGIT 1
9	COMMON ANODE DIGIT 2
10	COMMON ANODE DIGIT 3
11	COMMON ANODE DIGIT 4
12	COMMON ANODE DIGIT 5
13	COMMON ANODE DP1, DP2

ABSOLUTE MAXIMUM RATING

PARAMETER	MAXIMUM RATING	UNIT
Power Dissipation Per Chip	75	mW
Peak Forward Current Per Chip (Frequency 1Khz, 25% duty cycle)	100*	mA
Continuous Forward Current Per Chip Derating Linear From 25℃ Per Chip	25 0.33	mA mA/℃
Reverse Voltage Per Chip	5	V
Operating Temperature Range	-35℃ to +85℃	
Storage Temperature Range	-35℃ to +85℃	
Solder Temperature: 1/16inch below seating plane for 3 seconds at 260℃		

* 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	I_V	800	2000		μcd	I_F=10mA
Peak Emission Wavelength	λp		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 Chip	V_F		2.1	2.6	V	I_F=20mA
Reverse Current Per Chip	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 (Commision Internationale De L'Eclairage) eye-response curve.

TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

(25°C Ambient Temperature Unless Otherwise Noted)

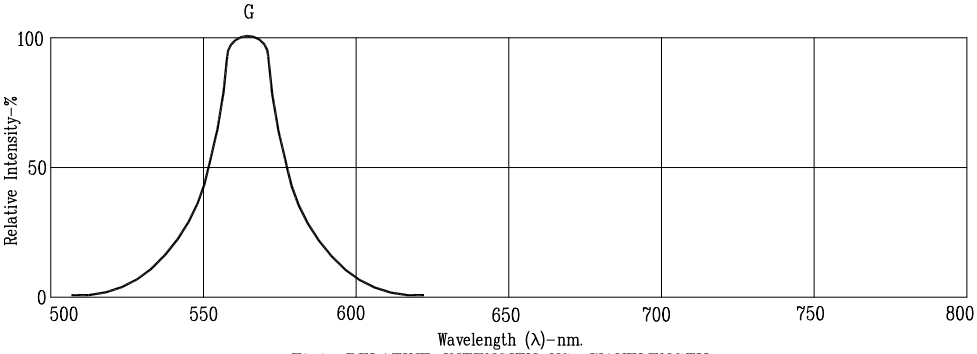


Fig1. RELATIVE INTENSITY VS. WAVELENGTH

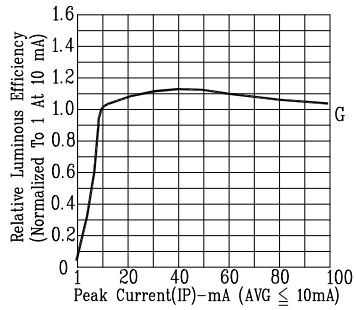


Fig2. RELATIVE LUMINOUS EFFICIENCY (LUMINOUS INTENSITY PER UNIT CURRENT) VS. PEAK CURRENT (REFRESH RATE 1KHz)

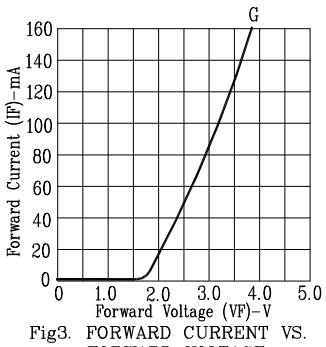


Fig3. FORWARD CURRENT VS. FORWARD VOLTAGE

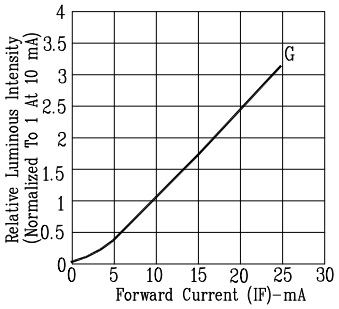


Fig4. RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

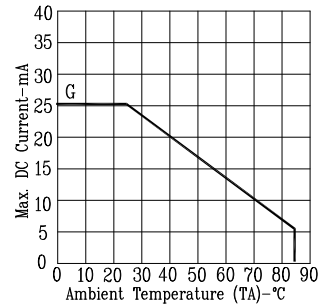


Fig5. MAX. ALLOWABLE DC CURRENT VS. AMBIENT TEMPERATURE.

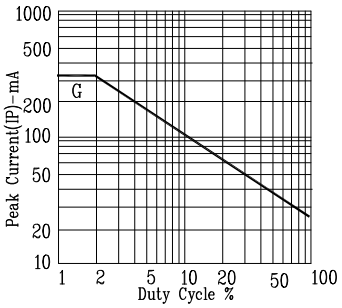


Fig6. MAX. PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE 1KHz)

NOTE: G=GREEN