

# LITEON LITE-ON ELECTRONICS, INC.

## Property of Lite-On Only

### **FEATURES**

- \*0.36 inch (9.2 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 LTC-3654G is a 0.36 inch (9.2 mm) digit height quadruple digit seven-segment display. This device utilizes green LED chips, which are made from GaP on a transparent GaP substrate, and has a gray face and white segments.

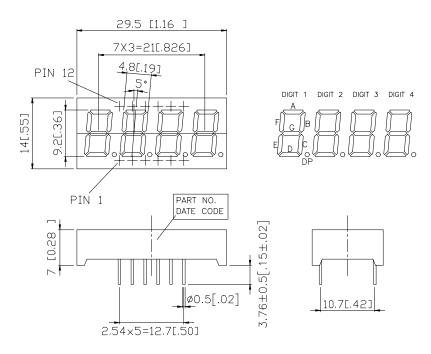
#### **DEVICE**

PART NO.	DESCRIPTION				
GREEN	MULTIPLEX COMMON ANODE				
LTC-3654G	Rt. Hand Decimal				

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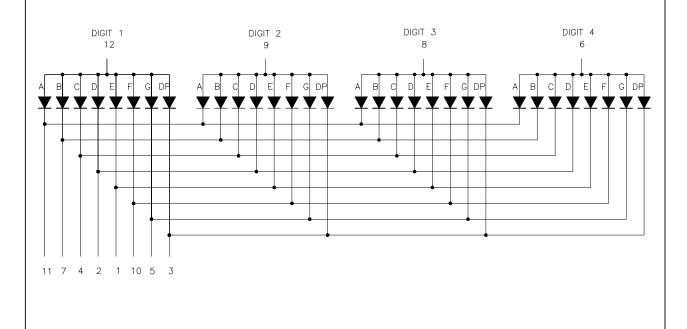
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### **PACKAGE DIMENSIONS**



NOTES: All dimensions are in millimeters. Tolerance is  $\pm 0.25$  mm (0.01") unless otherwise noted.

## INTERNAL CIRCUIT DIAGRAM



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## **PIN CONNECTION**

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

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## 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	25	mA			
Derating Linear From 25°C Per Segment	0.33	mA/°C			
Reverse Voltage Per Segment	5	V			
Operating Temperature Range -35°C to +85°C					
Storage Temperature Range -35°C to +85°C					
Solder Temperature: max 260°C for max 3sec at 1.6mm[1/16inch] below seating plane.					

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

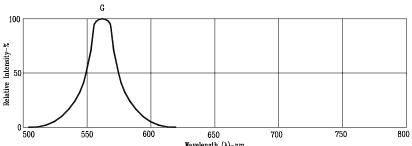
PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	Iv	800	2000		μcd	I <sub>F</sub> =10mA
Peak Emission Wavelength	λр		565		nm	I <sub>F</sub> =20mA
Spectral Line Half-Width	Δλ		30		nm	I <sub>F</sub> =20mA
Dominant Wavelength	λd		569		nm	I <sub>F</sub> =20mA
Forward Voltage Per Segment	$V_{\mathrm{F}}$		2.1	2.6	V	I <sub>F</sub> =20mA
Reverse Current Per Segment	Ir			100	μΑ	$V_R=5V$
Luminous Intensity Matching Ratio	Iv-m			2:1		I <sub>F</sub> =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.

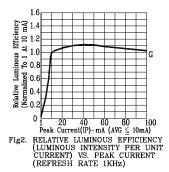
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### TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

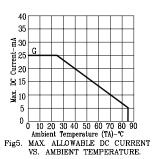
(25°C Ambient Temperature Unless Otherwise Noted)



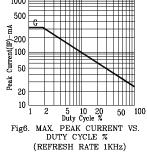
Wavelength (λ)-nm.
Fig1. RELATIVE INTENSITY VS. WAVELENGTH



160 140 120 100 1.0 2.0 3.0 4.0 5 Forward Voltage (VF)-V FORWARD CURRENT VS. FORWARD VOLTAGE Fig3.



Relative Luminous Intensity (Normalized To 1 At 10 mA) 00 5 10 15 20 25 30
Forward Current (IF)-mA
Fig4. RELATIVE LUMINOUS INTENSITY
VS. FORWARD CURRENT



NOTE: G=GREEN

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