



# LED Display Product Data Sheet LTC-5653KF

Spec No.: DS30-2008-0042

Effective Date: 03/21/2008

Revision: -

**LITE-ON DCC**

**RELEASE**

BNS-OD-FC001/A4

**LED DISPLAY****LTC-5653KF**  
**DATASHEET**

<u>Rev</u>	<u>Description</u>	<u>By</u>
01	ORIGINAL (Refer to contour drawing Revision (-))	<u>KITTISAK</u> <u>Jan 30/2008</u>
<b>(Above data for PD and Customer tracking only )</b>		
-	NPPR Received and Upload on OPNC	<u>KITTISAK</u> <u>Mar 08/2008</u>

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## **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.
- \* **LEAD-FREE PACKAGE (ACCORDING TO ROHS)**

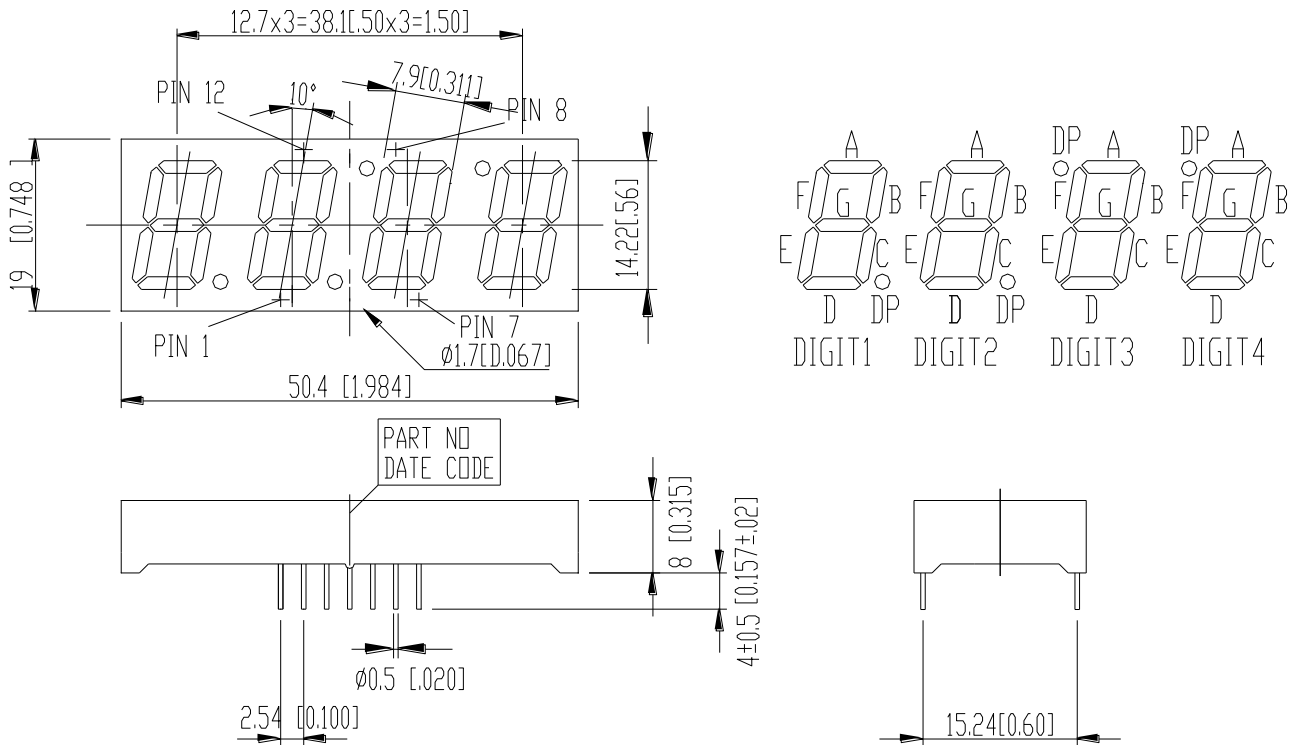
## **DESCRIPTION**

The LTC-5653KF is a 0.56-inch (14.22-mm) digit height quad digit seven-segment display. This device uses AllnGaP Yellow Orange chips (AllnGaP epi on GaAs substrate). The display has gray face and white segments.

## **DEVICE**

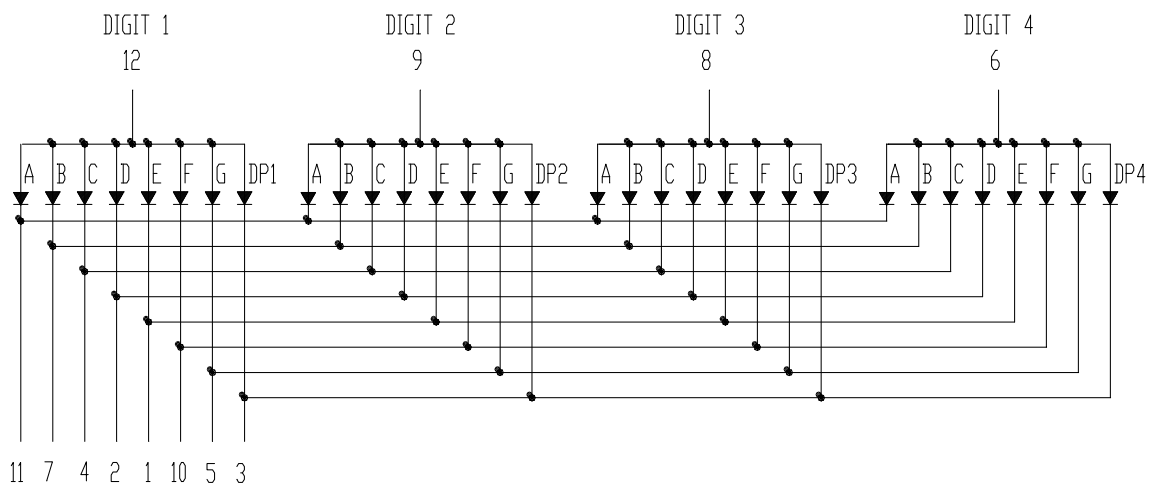
<b>PART NO.</b>	<b>DESCRIPTION</b>
AllnGaP Yellow Orange	Common Anode
LTC-5653KF	Rt. Hand Decimal

## PACKAGE DIMENSIONS



- NOTES: 1. All dimensions are in millimeters. Tolerances are  $\pm 0.25\text{mm}$  ( $0.01''$ ) unless otherwise noted.  
 2. Pin tip's shift tolerance is  $\pm 0.4$  mm.

## INTERNAL CIRCUIT DIAGRAM



**PIN CONNECTION**

<b>No.</b>	<b>CONNECTION</b>
1	Cathode E (Digit 1)
2	Cathode D (Digit 1)
3	Cathode D.P. (Digit 1)
4	Cathode C (Digit 1)
5	Cathode G (Digit 1)
6	Common Anode (Digit 4)
7	Cathode B (Digit 1)
8	Common Anode (Digit 3)
9	Common Anode (Digit 2)
10	Cathode F (Digit 1)
11	Cathode A (Digit 1)
12	Common Anode (Digit 1)

## ABSOLUTE MAXIMUM RATING AT T<sub>A</sub>=25°C

PARAMETER	MAXIMUM RATING	UNIT
Power Dissipation Per Segment	70	mW
Peak Forward Current Per Segment ( 1/10 Duty Cycle, 0.1ms Pulse Width )	90	mA
Continuous Forward Current Per Segment	25	mA
Derating Linear From 25°C Per Segment	0.28	mA/°C
Reverse Voltage Per Segment	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 temperature of unit (during assembly) not over max. temperature rating above		

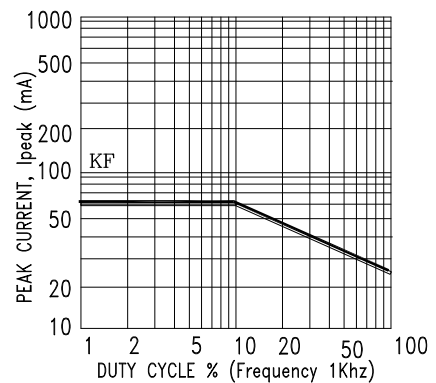
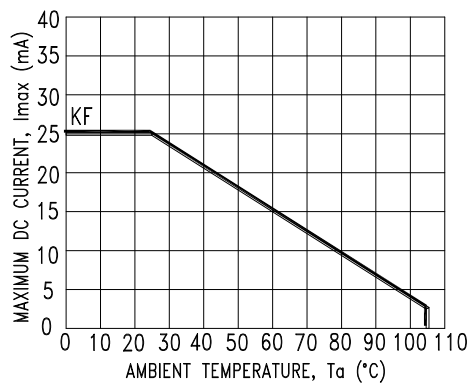
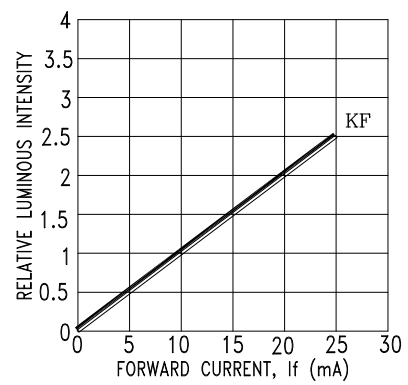
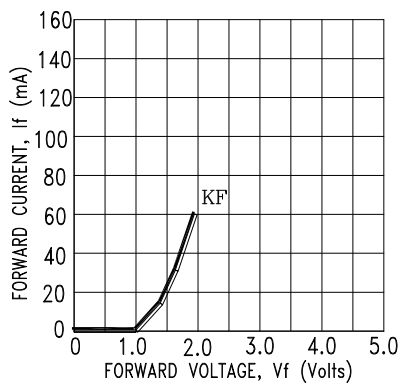
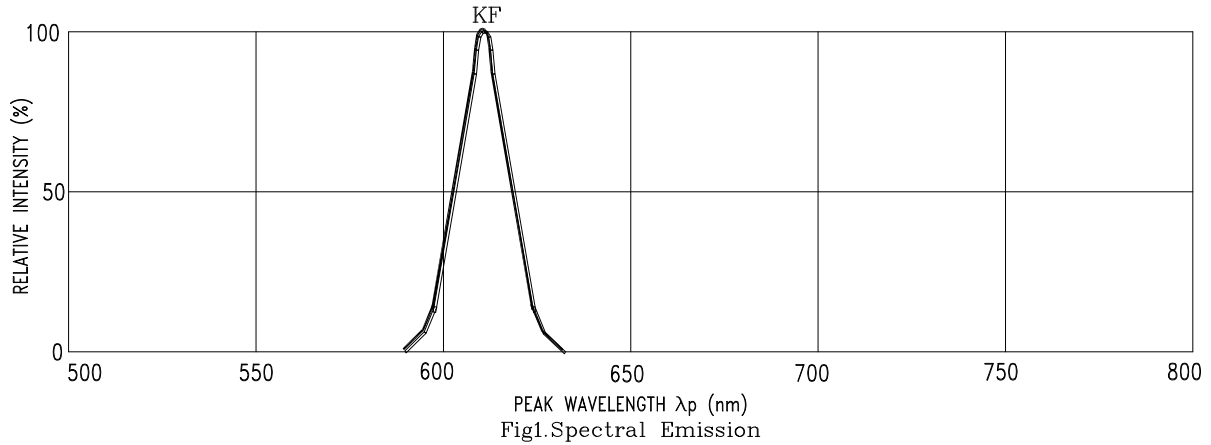
## ELECTRICAL / OPTICAL CHARACTERISTICS AT T<sub>A</sub>=25°C

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	I <sub>v</sub>	800	2222		μcd	I <sub>F</sub> =1mA
Peak Emission Wavelength	λ <sub>p</sub>		611		nm	I <sub>F</sub> =20mA
Spectral Line Half-Width	Δλ		17		nm	I <sub>F</sub> =20mA
Dominant Wavelength	λ <sub>d</sub>		605		nm	I <sub>F</sub> =20mA
Forward Voltage Per Segment	V <sub>F</sub>		2.05	2.6	V	I <sub>F</sub> =20mA
Reverse Current Per Segment	I <sub>R</sub>			100	μA	V <sub>R</sub> =5V
Luminous Intensity Matching Ratio (Similar Light Area)	I <sub>v-m</sub>			2:1		I <sub>F</sub> =1mA

Note: Luminous intensity is measured with a light sensor and filter combination that approximates the CIE (commission international DE L'clairage) eye-response curve.

## TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

(25°C Ambient Temperature Unless Otherwise Noted)



NOTE : KF=AlInGaP YELLOW ORANGE