Property of Lite-On Only

LED DISPLAY

LTC-5653KF-01 DATASHEET

Rev	<u>Description</u>	By			
01	ORIGINAL	KITTISAK			
		Jan 05/2008			
(Above	(Above data for PD and Customer tracking only)				
-	NPPR Received and Upload on OPNC	<u>KITTISAK</u>			
		Mar 08/2008			

PART NO.: LTC-5653KF-01 PAGE: 0 of 5

Property of Lite-On Only

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

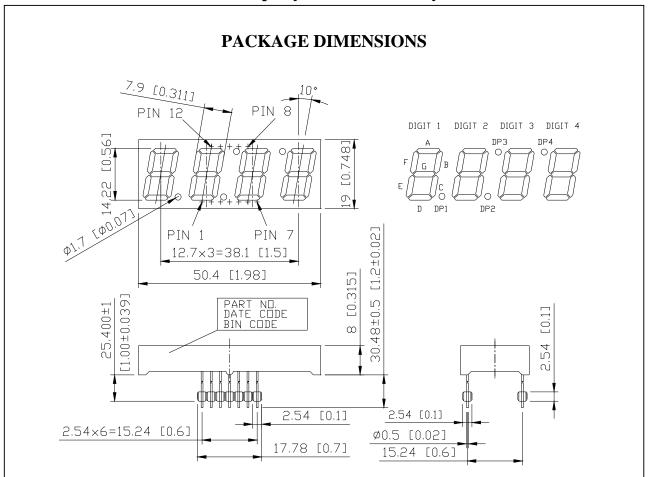
The LTC-5653KF-01 is a 0.56-inch (14.22-mm) digit height quad digit seven-segment display. This device uses AlInGaP Yellow Orange chips (AlInGaP epi on GaAs substrate). The display has gray face and white segments.

DEVICE

PART NO.	DESCRIPTION		
AlInGaP Yellow Orange	Common Anode		
LTC-5653KF-01	Rt. Hand Decimal		

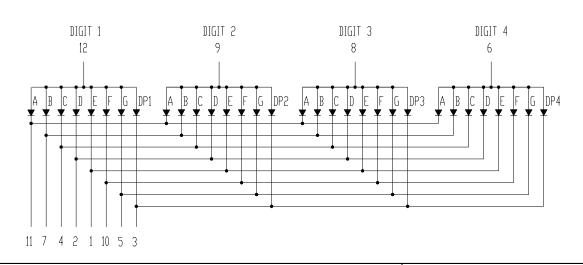
PART NO.: LTC-5653KF-01 PAGE: 1 of 5

Property of Lite-On Only



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

INTERNAL CIRCUIT DIAGRAM



PART NO.: LTC-5653KF-01 PAGE: 2 of 5

Property of Lite-On Only

PIN CONNECTION

No.	CONNECTION				
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)				

PART NO.: LTC-5653KF-01 PAGE: 3 of 5

Property of Lite-On Only

ABSOLUTE MAXIMUM RATING AT T_A=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 ^o C Per Segment	0.28	mA/ ⁰ C		
Reverse Voltage Per Segment	5	V		
Operating Temperature Range	-35^{0} C to $+105^{0}$ C			
Storage Temperature Range	-35^{0} C to $+105^{0}$ 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_A=25°C

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	Iv	800	2222		μcd	I _F =1mA
Peak Emission Wavelength	λр		611		nm	I _F =20mA
Spectral Line Half-Width	Δλ		17		nm	I _F =20mA
Dominant Wavelength	λd		605		nm	I _F =20mA
Forward Voltage Per Segment	$V_{\rm F}$		2.05	2.6	V	I _F =20mA
Reverse Current Per Segment	IR			100	μΑ	V _R =5V
Luminous Intensity Matching Ratio (Similar Light Area)	Iv-m			2:1		I _F =1mA

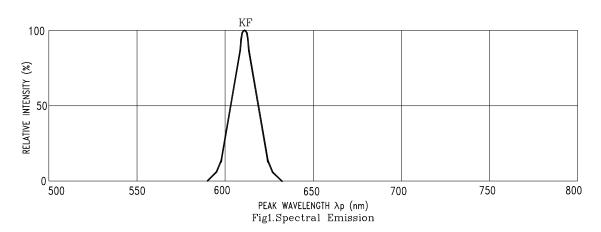
Note: Luminous intensity is measured with a light sensor and filter combination that approximates the CIE (commission international DE L'clariage) eye-response curve.

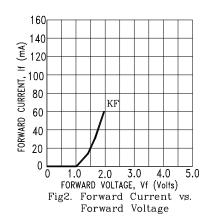
PAGE: 4 of 5 PART NO.: LTC-5653KF-01

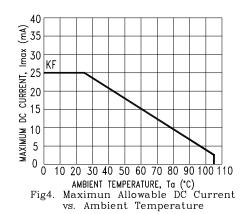
Property of Lite-On Only

TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

(25°C Ambient Temperature Unless Otherwise Noted)







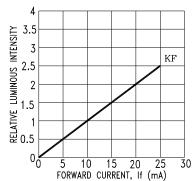
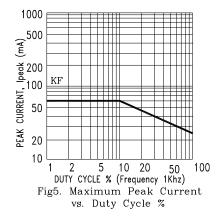


Fig3. Relative Luminous Intensity vs. DC Forward Current



NOTE: KF=AlInGaP YELLOW ORANGE

PART NO.: LTC-5653KF-01 PAGE: 5 of 5