



# LED Display Product Data Sheet LTC-5836KR-07

Spec No.: DS30-2003-244

Effective Date: 11/24/2003

Revision: -

**LITE-ON DCC**

**RELEASE**

BNS-OD-FC001/A4

**FEATURES**

- \* 0.52 inch (13.2 mm) DIGIT HEIGHT
- \* EXCELLENT SEGMENT UNIFORMITY
- \* LOW POWER REQUIREMENT
- \* HIGH BRIGHTNESS AND HIGH CONTRAST
- \* WIDE VIEWING ANGLE
- \* SOLID STATE RELIABILITY
- \* BINNED FOR LUMINOUS INTENSITY

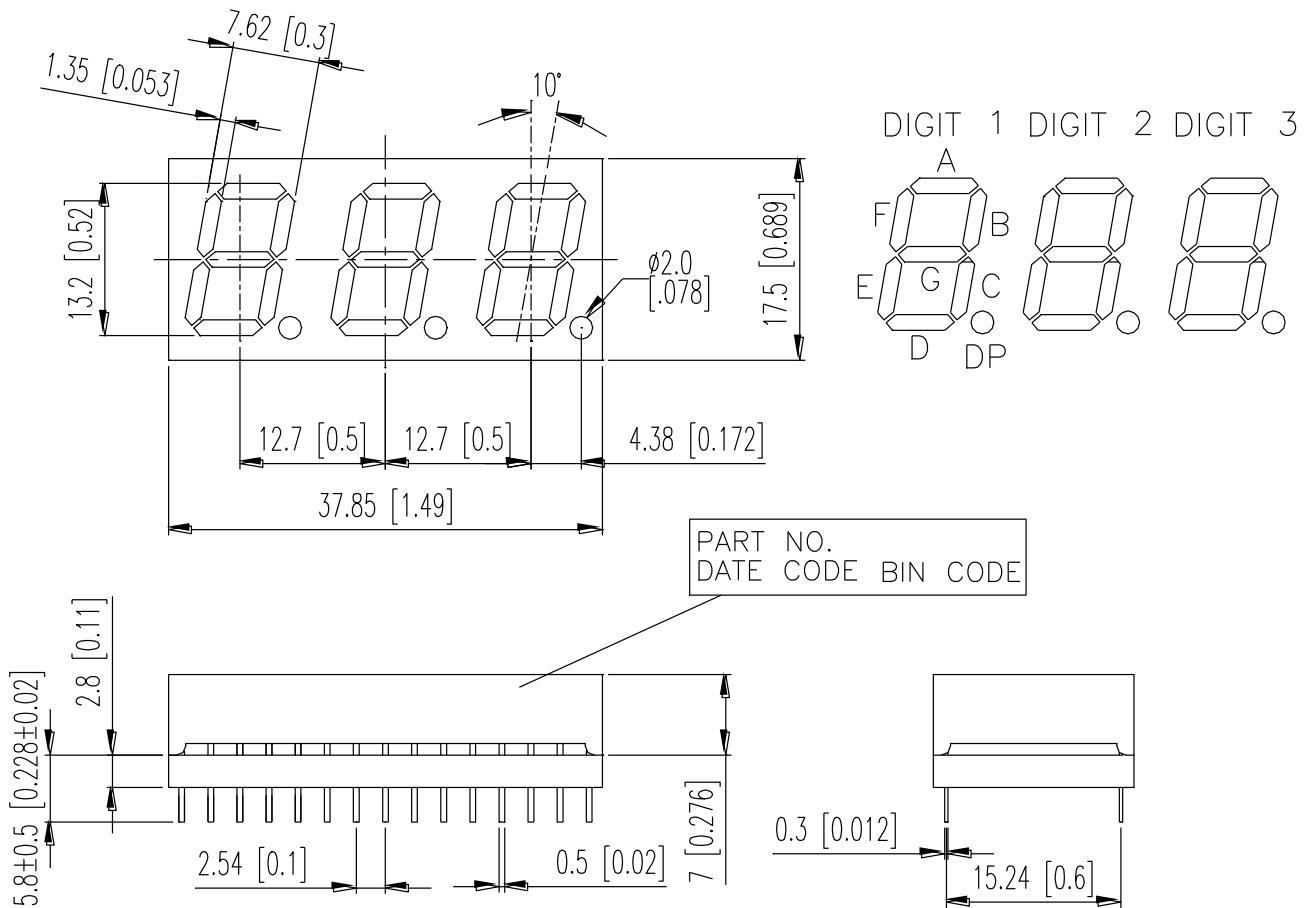
**DESCRIPTION**

The LTC-5836KR-07 is a 0.52 inch (13.2 mm) digit height triple digit seven-segment display. This device uses AS-AlInGaP SUPER RED LED chips (AlInGaP epi on GaAs substrate), and has a gray face and white segments.

**DEVICE**

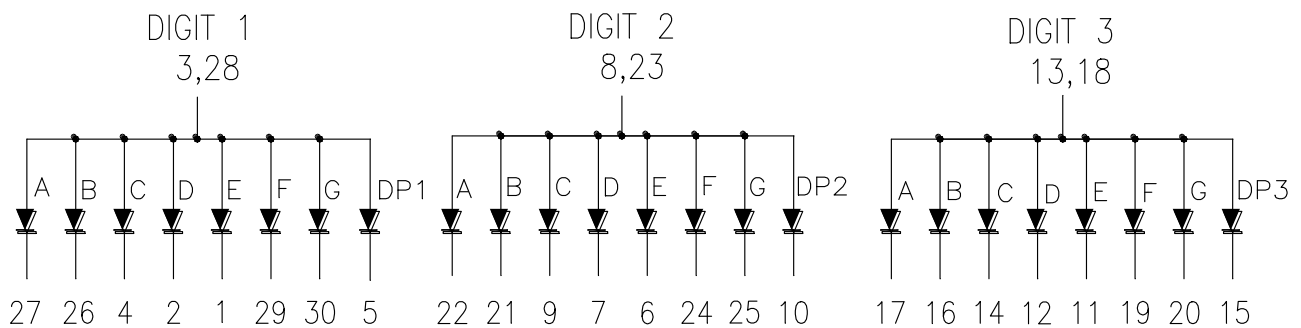
<b>PART NO.</b>	<b>DESCRIPTION</b>
AlInGaP SUPER RED	Common Anode
LTC-5836KR-07	Rt. Hand Decimal

## PACKAGE DIMENSIONS



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

## INTERNAL CIRCUIT DIAGRAM



**PIN CONNECTION**

<b>NO.</b>	<b>CONNECTION</b>	<b>NO.</b>	<b>CONNECTION</b>
1	Cathode E (Digit 1)	16	Cathode B (Digit 3)
2	Cathode D (Digit 1)	17	Cathode A (Digit 3)
3	Common Anode (Digit 1)	18	Common Anode (Digit 3)
4	Cathode C (Digit 1)	19	Cathode F (Digit 3)
5	Cathode DP (Digit 1)	20	Cathode G (Digit 3)
6	Cathode E (Digit 2)	21	Cathode B (Digit 2)
7	Cathode D (Digit 2)	22	Cathode A (Digit 2)
8	Common Anode (Digit 2)	23	Common Anode (Digit 2)
9	Cathode C (Digit 2)	24	Cathode F (Digit 2)
10	Cathode DP (Digit 2)	25	Cathode G (Digit 2)
11	Cathode E (Digit 3)	26	Cathode B (Digit 1)
12	Cathode D (Digit 3)	27	Cathode A (Digit 1)
13	Common Anode (Digit 3)	28	Common Anode (Digit 1)
14	Cathode C (Digit 3)	29	Cathode F (Digit 1)
15	Cathode DP (Digit 3)	30	Cathode G (Digit 1)

**ABSOLUTE MAXIMUM RATING**

PARAMETER	MAXIMUM RATING	UNIT
Power Dissipation Per Segment	70	mW
Peak Forward Current Per Segment ( Frequency 1Khz, 10% duty cycle)	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	
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	I <sub>v</sub>	320	1050		μcd	I <sub>F</sub> =1mA
Peak Emission Wavelength	λ <sub>p</sub>		639		nm	I <sub>F</sub> =20mA
Spectral Line Half-Width	Δλ		20		nm	I <sub>F</sub> =20mA
Dominant Wavelength	λ <sub>d</sub>		631		nm	I <sub>F</sub> =20mA
Forward Voltage Per Segment	V <sub>F</sub>		2.0	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	I <sub>v</sub> -m			2:1		I <sub>F</sub> =1mA

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)

