



LED Display

Product Data Sheet

LTC-5689KD

Spec No.: DS30-2008-0190

Effective Date: 06/04/2010

Revision: A

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>

FEATURES

- * 0.56 inch (14.2 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.
- * **LEAD-FREE PACKAGE (ACCORDING TO ROHS).**

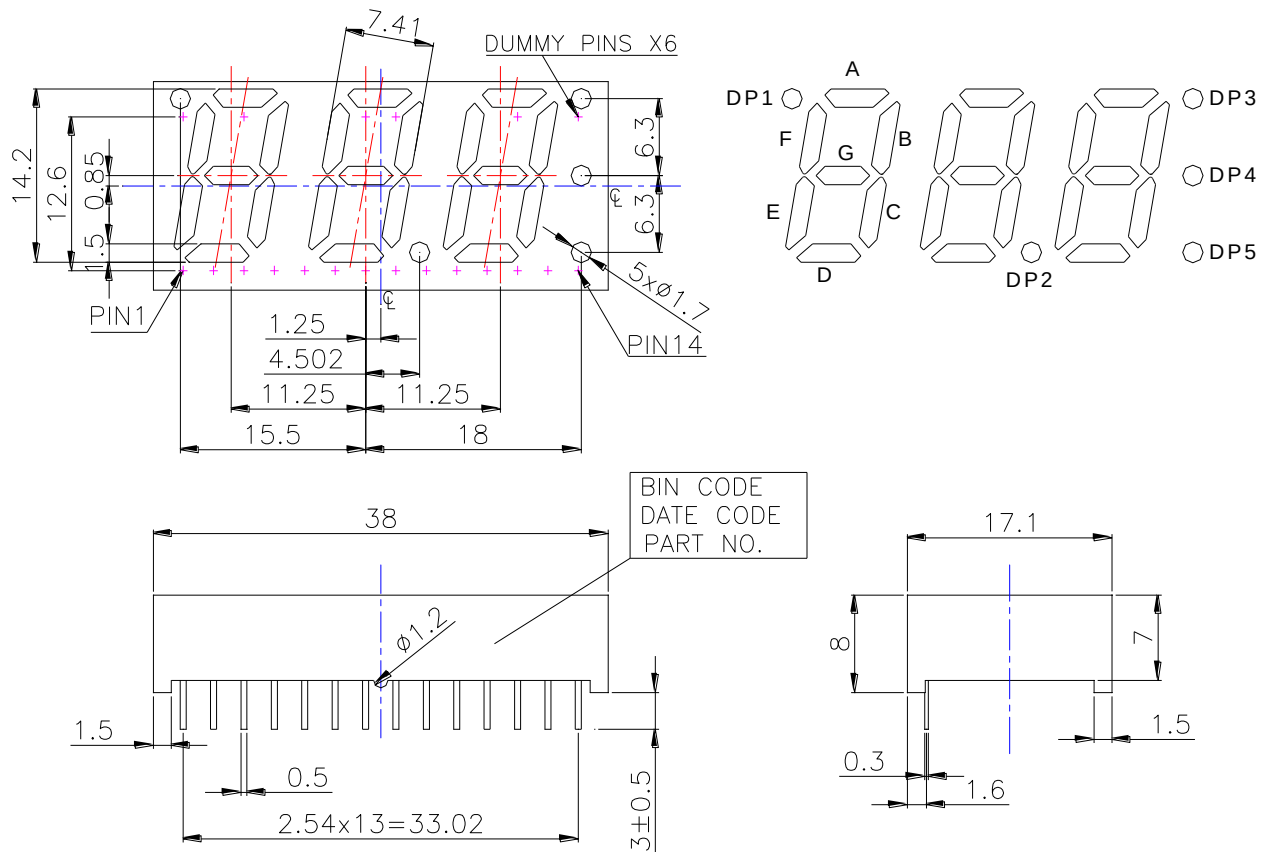
DESCRIPTION

The LTC-5689KD is a 0.56 inch (14.2 mm) digit height triple digit seven-segment display. This device uses AlInGaP HYPER RED LED chips (AlInGaP epi on GaAs substrate). The display has black face and white segments.

DEVICE

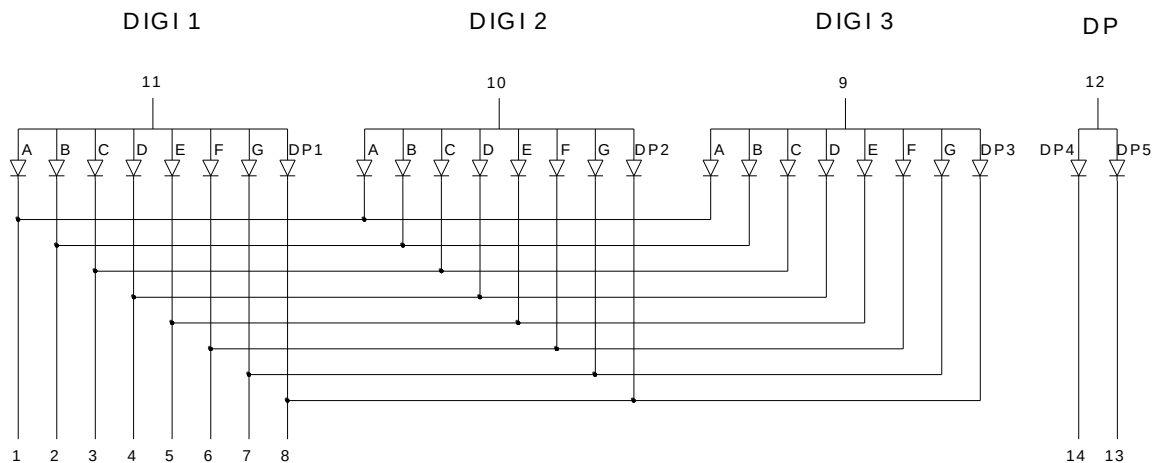
PART NO.	DESCRIPTION
AlInGaP Hyper RED	Multiplex Common Anode
LTC-5689KD	Rt. Hand Decimal

PACKAGE DIMENSIONS



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

INTERNAL CIRCUIT DIAGRAM



PIN CONNECTION

NO.	CONNECTION
1	CATHODE A
2	CATHODE B
3	CATHODE C
4	CATHODE D
5	CATHODE E
6	CATHODE F
7	CATHODE G
8	CATHODE DP1, DP2, DP3
9	COMMON ANODE, DIGIT 3
10	COMMON ANODE, DIGIT 2
11	COMMON ANODE, DIGIT 1
12	COMMON ANODE , DP4, DP5
13	CATHODE DP5
14	CATHODE DP4

ABSOLUTE MAXIMUM RATING AT Ta=25°C

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
Forward Current Derating from 25 ⁰ C	0.28	mA/ ⁰ C
Reverse Voltage Per Segment	5	V
Operating Temperature Range	-35 ⁰ C to +105C	
Storage Temperature Range	-35 ⁰ C to +105C	
Solder Temperature 1/16 inch Below Seating Plane for 3 Seconds at 260 ⁰ C., or temperature of unit (during assembly) not over max. temperature rating above .		

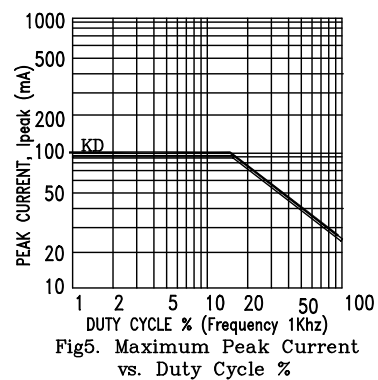
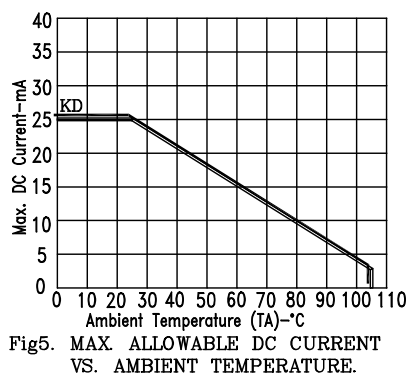
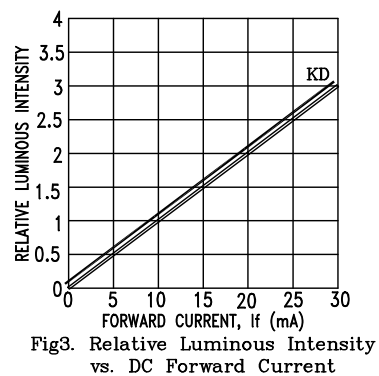
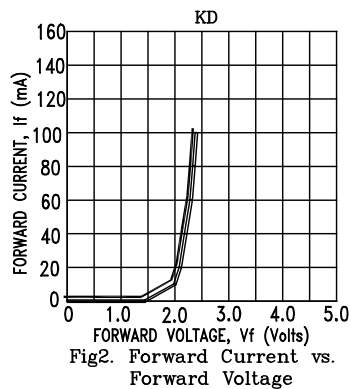
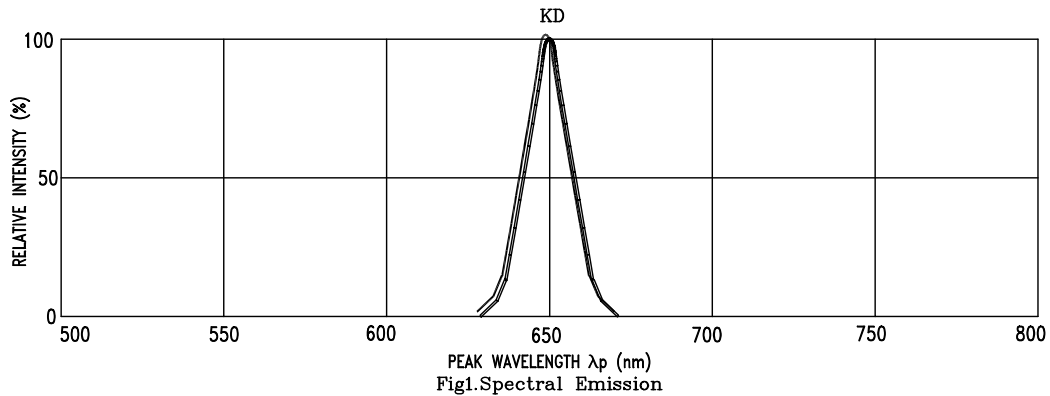
ELECTRICAL / OPTICAL CHARACTERISTICS AT Ta=25°C

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITION
Average Luminous Intensity Per Segment	I _v	320	1250		μcd	I _F = 1mA
Peak Emission Wavelength	λ _p		650		nm	I _F = 20mA
Spectral Line Half-Width	Δλ		20		nm	I _F = 20mA
Dominant Wavelength	λ _d		639		nm	I _F = 20mA
Forward Voltage Per Segment	V _F		2.1	2.6	V	I _F = 20mA
Reverse Current Per Segment	I _R			100	μA	V _R = 5V
Luminous Intensity Matching Ratio (Similar Light Area)	I _v -m			2 : 1		I _F = 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)



NOTE : KD=AlInGaP HYPER RED