



LED Display

Product Data Sheet

LTC-5854BKD-J

Spec No.: DS30-2006-083

Effective Date: 08/02/2006

Revision: A

LITE-ON DCC

RELEASE

BNS-OD-FC001/A4

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FEATURES

- * 0.52 inch (13.2 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).**

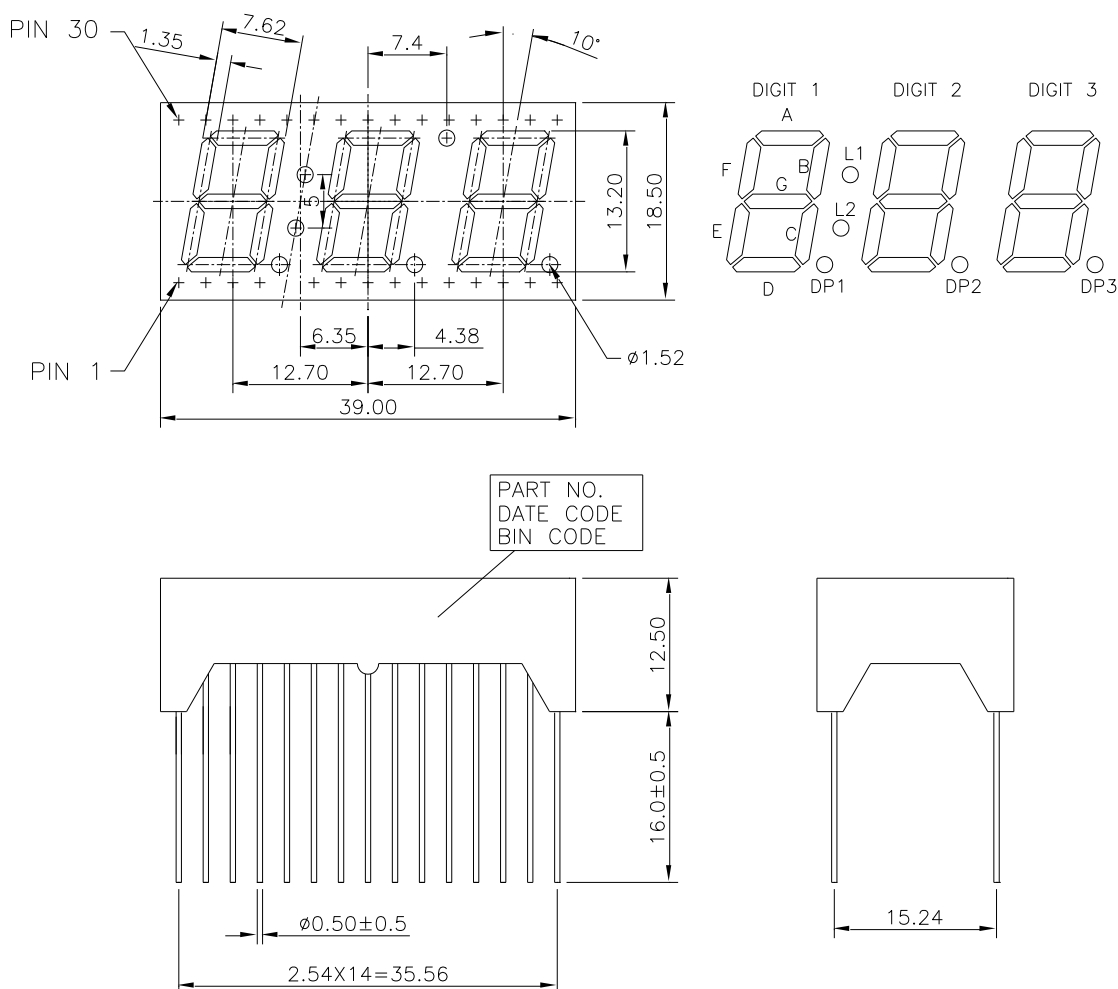
DESCRIPTION

The LTC-5854BKD-J is a 0.52inch (13.2mm) digit height LED display. This device uses AlInGaP Hyper Red LED chips (AlInGaP epi on GaAs substrate). The display has a black face and red segments.

DEVICE

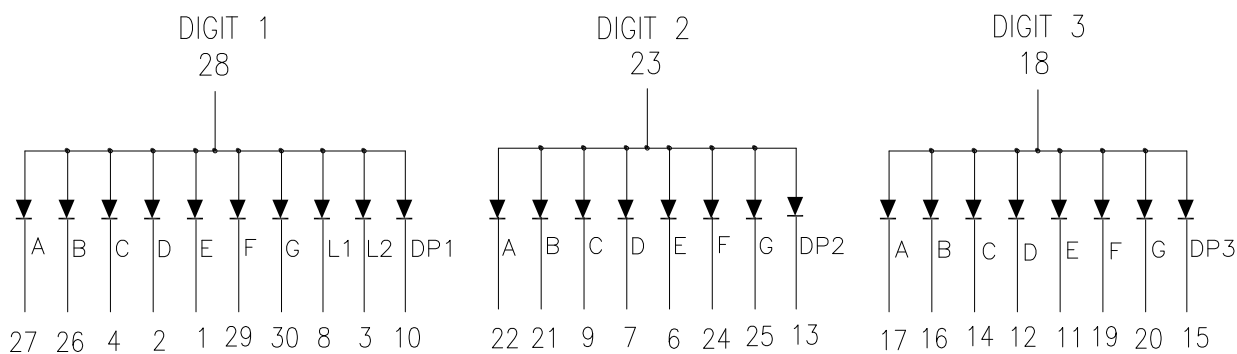
PART NO.	DESCRIPTION
AlInGaP Hyper Red	Common Anode
LTC-5854BKD-J	

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	NO	CONNECTION
1	CATHODE E (DIGIT 1)	16	CATHODE B (DIGIT 3)
2	CATHODE D (DIGIT 1)	17	CATHODE A (DIGIT 3)
3	CATHODE L2 (DIGIT 1)	18	COMMON ANODE (DIGIT 3)
4	CATHODE C (DIGIT 1)	19	CATHODE F (DIGIT 3)
5	NO PIN	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	CATHODE L1 (DIGIT 1)	23	COMMON ANODE (DIGIT 2)
9	CATHODE C (DIGIT 2)	24	CATHODE F (DIGIT 2)
10	CATHODE DP1 (DIGIT 1)	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	CATHODE DP2 (DIGIT 2)	28	COMMON ANODE (DIGIT 1)
14	CATHODE C (DIGIT 3)	29	CATHODE F (DIGIT 1)
15	CATHODE DP3 (DIGIT 3)	30	CATHODE G (DIGIT 1)

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
Derating Linear From 25°C Per Segment	0.33	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 ⁰ C., or temperature of unit (during assembly) not over max. temperature rating above		

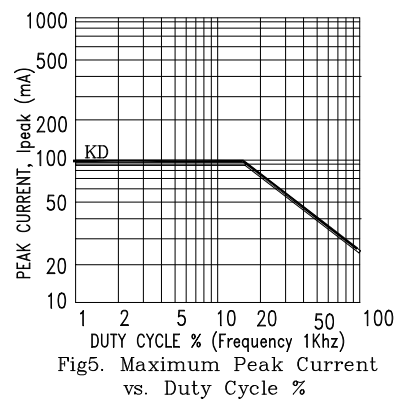
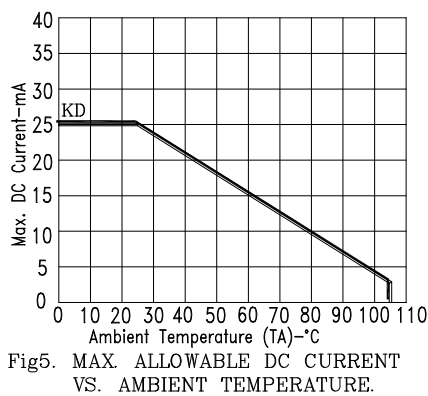
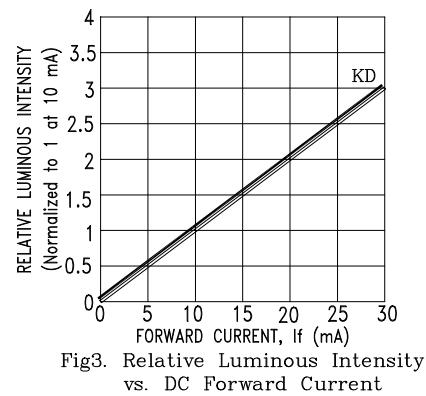
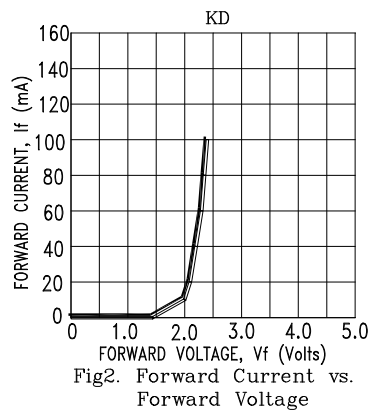
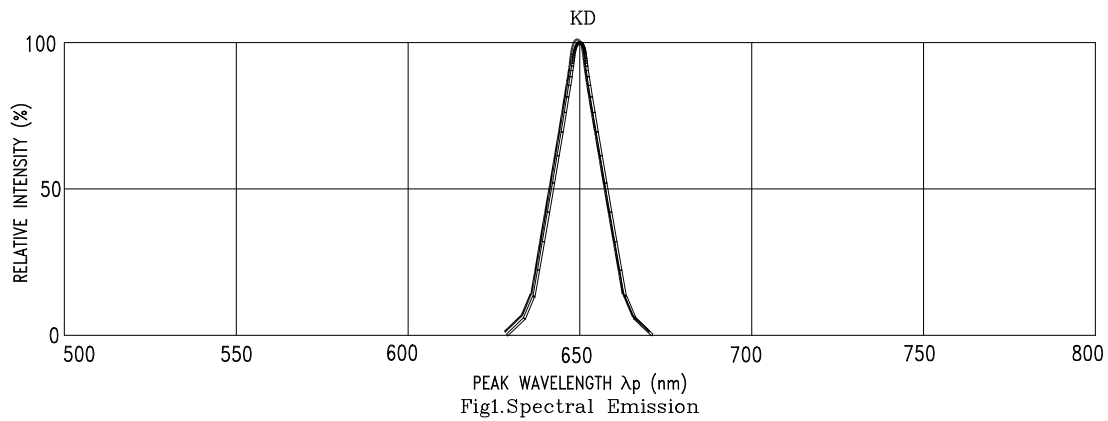
ELECTRICAL / OPTICAL CHARACTERISTICS AT Ta=25°C

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	I _v	320	1050		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