



# LED Display Product Data Sheet LTC-5679KD-J

Spec No.: DS30-2004-173

Effective Date: 07/31/2004

Revision: -

**LITE-ON DCC**

**RELEASE**

BNS-OD-FC001/A4

**FEATURES**

- \* 0.5 inch (12.7 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

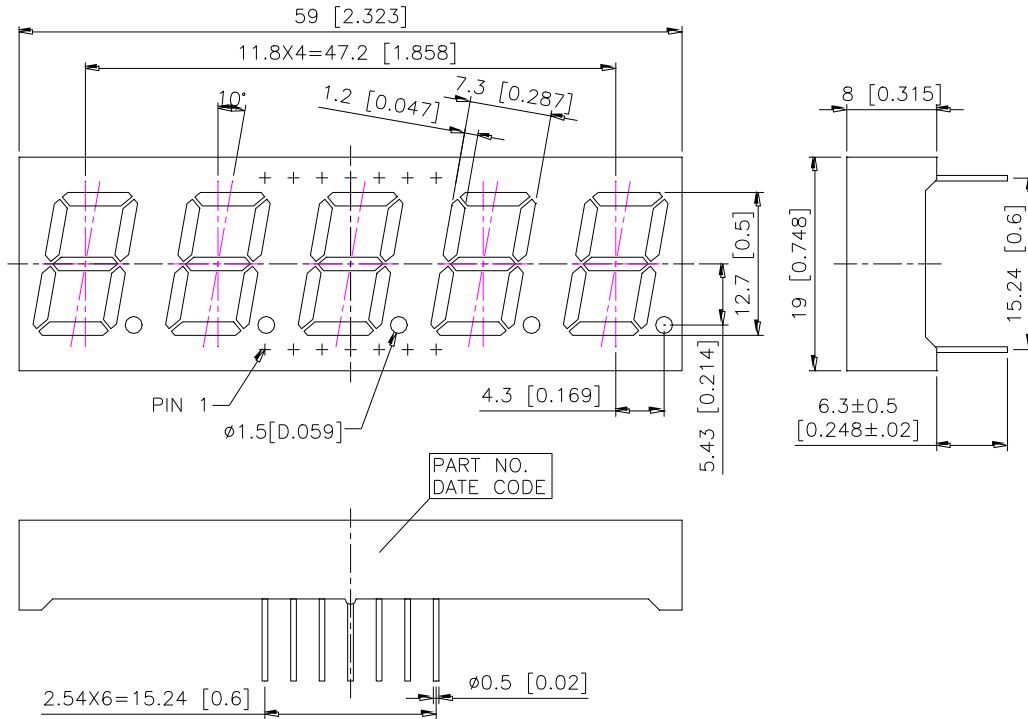
**DESCRIPTION**

The LTC-5679KD-J is a 0.5 inch (12.7 mm) digit height seven-segment display. This device uses AllnGap high efficiency red LED chips ( AllnGap epi on GaAs substrate). The display has a black face and white segments.

**DEVICE**

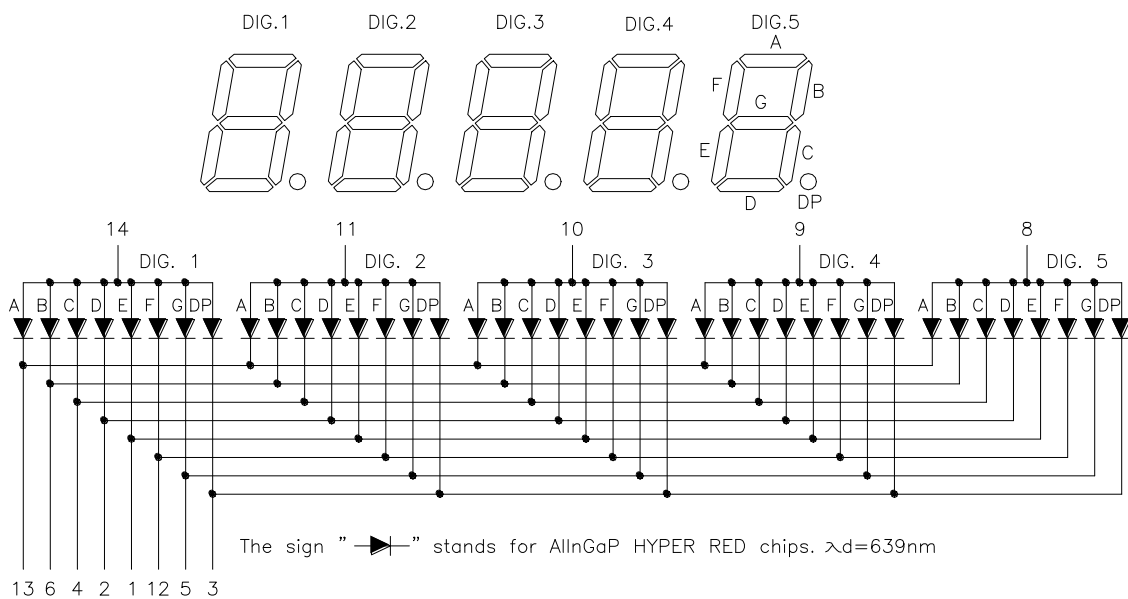
<b>PART NO.</b>	<b>DESCRIPTION</b>
AllnGap Hi-Eff. Red	Multiplex Common Anode
LTC-5679KD-J	Rt. Hand Decimal

## 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>
1	CATHODE E
2	CATHODE D
3	CATHODE D.P.
4	CATHODE C
5	CATHODE G
6	CATHODE B
7	NO CONNECT
8	COMMON ANODE (DIGIT 5)
9	COMMON ANODE (DIGIT 4)
10	COMMON ANODE (DIGIT 3)
11	COMMON ANODE (DIGIT 2)
12	CATHODE F
13	CATHODE A
14	COMMON ANODE (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 Forward Current Derating from 25 <sup>0</sup> C	25	mA mA/°C
Reverse Voltage Per Segment	0.33	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 <sup>0</sup> C		

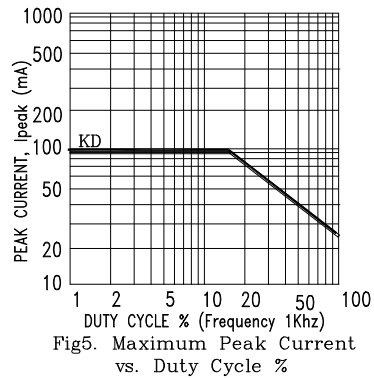
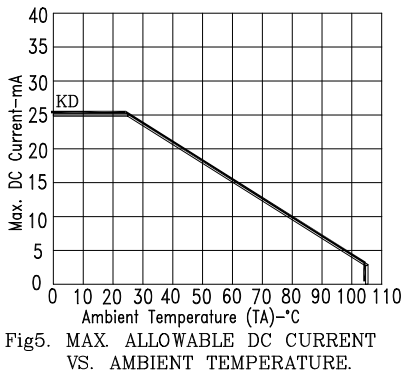
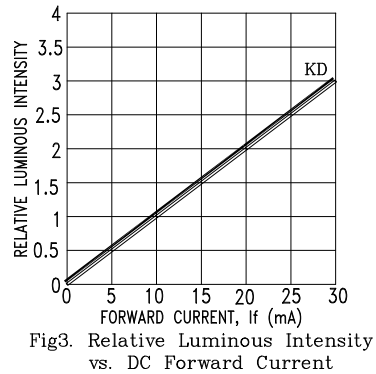
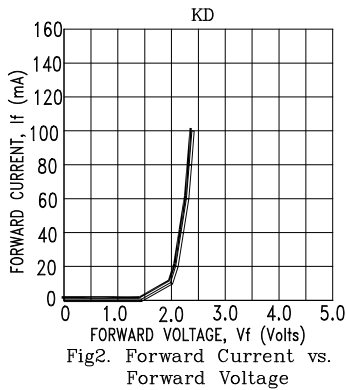
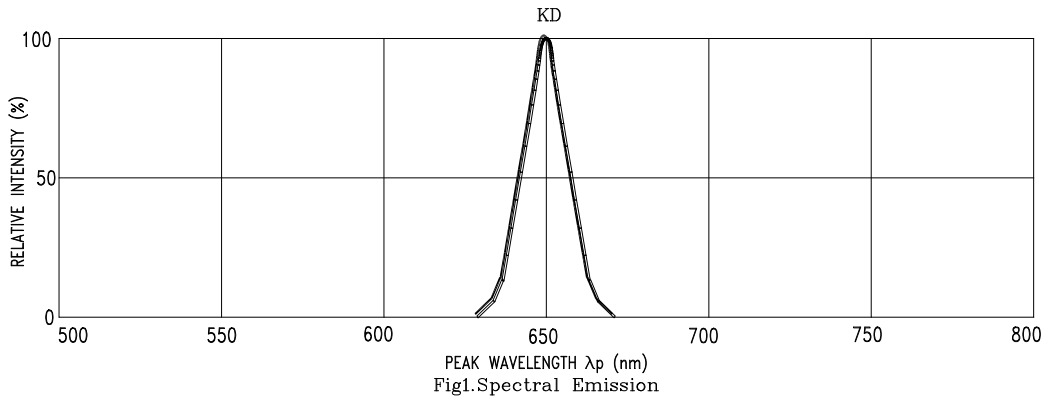
**ELECTRICAL / OPTICAL CHARACTERISTICS AT Ta=25°C**

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	I <sub>v</sub>	320	700		μcd	I <sub>F</sub> =1mA
Peak Emission Wavelength	λ <sub>p</sub>		656		nm	I <sub>F</sub> =20mA
Spectral Line Half-Width	Δλ		22		nm	I <sub>F</sub> =20mA
Dominant Wavelength	λ <sub>d</sub>		640		nm	I <sub>F</sub> =20mA
Forward Voltage Per Segment	V <sub>F</sub>		2.1	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)



NOTE : KD=AlInGaP HYPER RED