LITEON LITE-ON TECHNOLOGY CORPORATION

Property of Lite-On Only

FEATURES

- *0.8 inch (20.3 mm) DIGIT HEIGHT
- *EXCELLENT SEGMENT UNIFORMITY
- ***LOW POWER REQUIREMENT**
- *HIGH BRIGHTNESS AND HIGH CONTRAST
- *WIDE VIEWING ANGLE
- *** SOLID STATE RELIABILITY**
- *BINNED FOR LUMINOUS INTENSITY
- *LEAD-FREE PACKAGE(ACCORDING TO ROHS)

DESCRIPTION

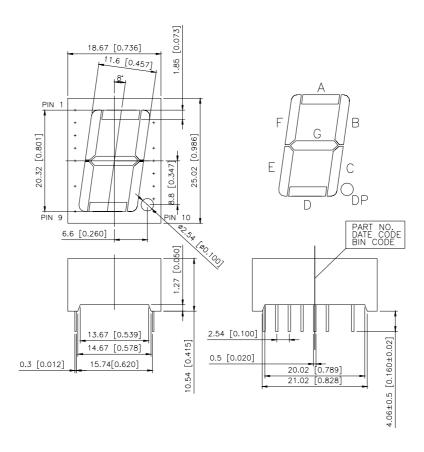
The LTS-8809KE is a 0.8 inch (20.3 mm) digit height digit display. This device uses AS-AlInGaP RED LED chips (AlInGaP epi on GaAs substrate). The display has red face and red segments.

DEVICE

PART NO.	DESCRIPTION
AlInGaP RED	Common Anode
LTS-8809KE	

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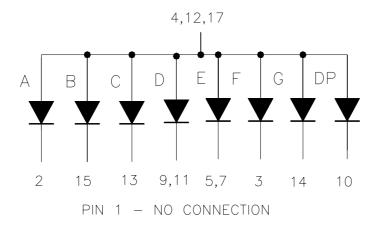
PACKAGE DIMENSIONS



NOTES: 1.All dimensions are in millimeters. Tolerances are $\pm~0.25~mm$ (0.01") unless otherwise noted.

2. Pin tip's shift tolerance is +/- 0.4mm

INTERNAL CIRCUIT DIAGRAM



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PIN CONNECTION

No.	CONNECTION
1	NO CONNECTION
2	CATHODE A
3	CATHODE F
4	COMMON ANODE
5	CATHODE E
6	NO PIN
7	CATHODE E
8	NO PIN
9	CATHODE D
10	CATHODE DP
11	CATHODE D
12	COMMON ANODE
13	CATHODE C
14	CATHODE G
15	CATHODE B
16	NO PIN
17	COMMON ANODE

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ABSOLUTE MAXIMUM RATINGS

PARAMETER	MAXIMUM RATING	UNIT			
Power Dissipation Per Segment	70	mW			
Peak Forward Current Per Segment (Frequency 1Khz, 18% duty cycle)	90	mA			
Continuous Forward Current Per Segment	2.6	mA			
Forward Current Derating from 25°C	0.28	mA/ ⁰ C			
Reverse Voltage Per Segment	5	V			
Operating Temperature Range	-35° C to $+105^{\circ}$ C				
Storage Temperature Range	-35 ⁰ C to +105 ⁰ 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

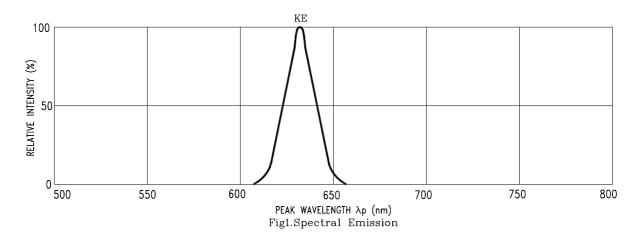
PARAMETER	SYMBOL	MIN	ТҮР	MAX	UNIT	TEST CONDITION
Average Luminous Intensity Per Segment	Iv	500	1400		μcd	IF = 1mA
Peak Emission Wavelength	λр		632		nm	IF = 20mA
Spectral Line Half-Width	Δλ		20		nm	IF = 20mA
Dominant Wavelength	λd		624		nm	IF = 20mA
Forward Voltage Per Segment	V_{F}		2.0	2.6	V	IF = 20mA
Reverse Current Per Segment	Ir			100	μΑ	$V_R = 5V$
Luminous Intensity Matching Ratio (Similar Light Area)	Iv-m			2:1		IF = 1mA

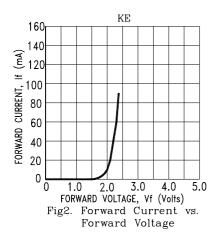
Note: Luminous intensity is measured with a light sensor and filter combination that approximates the CIE (Commision Internationale De L'Eclairage) eye-response curve.

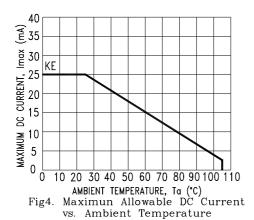
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TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

(25°C Ambient Temperature Unless Otherwise Noted)







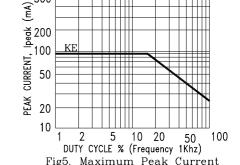


Fig5. Maximum Peak Current

vs. Duty Cycle %

10

15 20

FORWARD CURRENT, If (mA)

Fig3. Relative Luminous Intensity

vs. DC Forward Current

KE

1000

3.5

3

2.5

NOTE: KE=AlInGaP RED

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