

### LITEON LITE-ON TECHNOLOGY CORPORATION

Property of Lite-On Only

### **FEATURES**

- \*0.4 inch (10 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-4625AKS is a 0.4 inch (10 mm) digit height quadruple digit seven-segment display. This device uses AS-AlInGaP Yellow LED chips ( AlInGaP epi on GaAs substrate). The display has a gray face and white segments.

### **DEVICE**

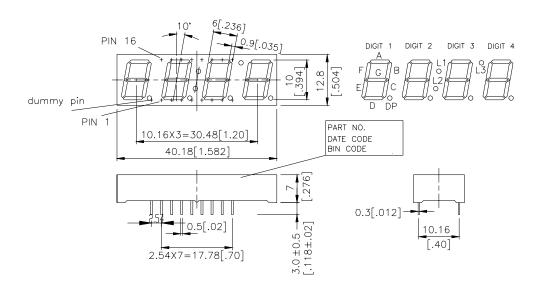
PART NO.	DESCRIPTION		
AlInGaP Yellow	Multiplex Common Anode		
LTC-4625AKS	Rt. Hand Decimal		

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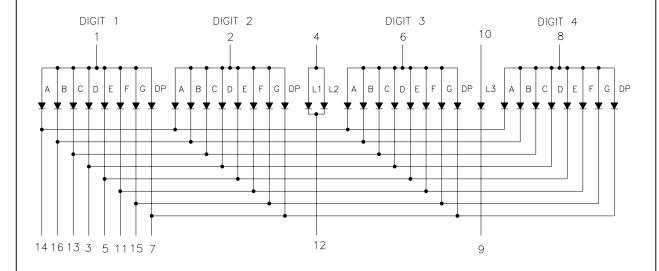
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### PACKAGE DIMENSIONS



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

### INTERNAL CIRCUIT DIAGRAM



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### **PIN CONNECTION**

No.	CONNECTION				
1	COMMON ANODE (DIGIT 1)				
2	COMMON ANODE (DIGIT 2)				
3	CATHODE D				
4	COMMON ANODE L1, L2				
5	CATHODE E				
6	COMMON ANODE (DIGIT 3)				
7	CATHODE DP				
8	COMMON ANODE (DIGIT 4)				
9	CATHODE L3				
10	ANODE L3				
11	CATHODE F				
12	CATHODE L1, L2				
13	CATHODE C				
14	CATHODE A				
15	CATHODE G				
16	CATHODE B				

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### ABSOLUTE MAXIMUM RATING

PARAMETER	MAXIMUM RATING	UNIT			
Power Dissipation Per Segment	70	mW			
Peak Forward Current Per Segment	60	mA			
(Frequency 1Khz, 10% duty cycle)  Continuous Forward Current Per Segment	25	mA			
Forward Current Derating from 25 <sup>o</sup> C	0.33	mA/°C			
Reverse Voltage Per Segment	5	V			
Operating Temperature Range $-35^{\circ}$ C to $+85^{\circ}$ C					
Storage Temperature Range	-35°C to +85°C				
Solder Temperature 1/16 inch Below Seating Plane for 3 Seconds at 260°C					

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

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	Iv	200	650		μcd	I <sub>F</sub> =1mA
Peak Emission Wavelength	λр		588		nm	I <sub>F</sub> =20mA
Spectral Line Half-Width	Δλ		15		nm	I <sub>F</sub> =20mA
Dominant Wavelength	λd		587		nm	I <sub>F</sub> =20mA
Forward Voltage Per Segment	VF		2.05	2.6	V	I <sub>F</sub> =20mA
Reverse Current Per Segment	Ir			100	μΑ	V <sub>R</sub> =5V
Luminous Intensity Matching Ratio	Iv-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.

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### TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

(25°C Ambient Temperature Unless Otherwise Noted)

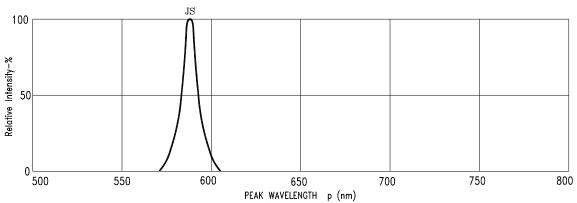
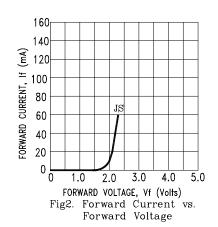


Fig1. Spectral Emission



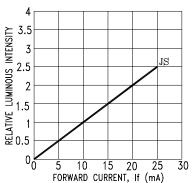
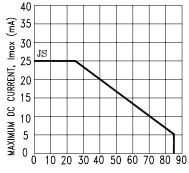
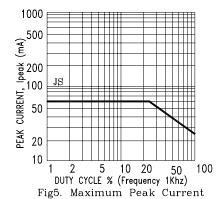


Fig3. Relative Luminous Intensity vs. DC Forward Current





vs. Duty Cycle %

AMBIENT TEMPERATURE, Ta (°C)
Fig4. Maximun Allowable DC Current
vs. Ambient Temperature

 ${\tt NOTE} \; : \; {\tt JS=AlInGaP} \; \; {\tt YELLOW}$ 

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