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# Part Number: XAMDK14C2

13.5 mm (0.531") 14 Segment Dual Digit Alphanumeric Display

#### **Features**

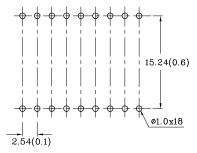
- Low power consumption
- Robust package
- I.C. Compatible
- Standard configuration: Gray face w/ white segments
- Optional black face provides superior color contrast

• RoHS Compliant



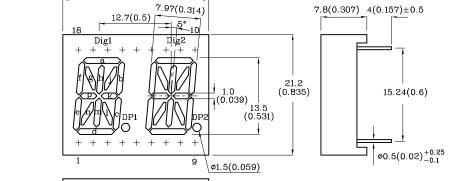


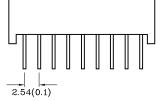
Recommended PCB Layout



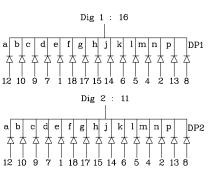


# ATTENTION OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DISCHARGE SENSITIVE DEVICES





25.2(0.992)



#### Notes:

**Package Schematics** 

- 1. All dimensions are in millimeters (inches), Tolerance is  $\pm 0.25(0.01")$  unless otherwise noted.
- 2. Specifications are subject to change without notice.

Absolute Maximum Ratings (T <sub>A</sub> =25°C)		Red (AlGaInP)	Unit	
Reverse Voltage	$V_{\rm R}$	5	V	
Forward Current	$I_{\mathrm{F}}$	30	mA	
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	i <sub>FS</sub>	185	mA	
Power Dissipation	$P_{D}$	75	mW	
Operating Temperature	$T_{\rm A}$	-40 ~ +85	°C	
Storage Temperature	Tstg	-40 ~ +85	-0	
Lead Solder Temperature [2mm Below Package Base]	260°C For 3-5 Seconds			

A Relative Humidity between 40% and 60% is recommended in ESD-protected work areas to reduce static build up during assembly process (Reference JEDEC/JESD625-A and JEDEC/J-STD-033)

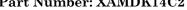
Operating Characteristics (T <sub>A</sub> =25°C)		Red (AlGaInP)	Unit
Forward Voltage (Typ.) (I <sub>F</sub> =10mA)	$V_{\mathrm{F}}$	1.85	V
Forward Voltage (Max.) (I <sub>F</sub> =10mA)	2.35	V	
Reverse Current (Max.) (V <sub>R</sub> =5V)	$I_R$	10	μA
Wavelength of Peak Emission CIE127-2007* (Typ.) (I <sub>F</sub> =10mA)	λР	645*	nm
Wavelength of Dominant Emission CIE127-2007* (Typ.) (I <sub>F</sub> =10mA)	λD	630*	nm
Spectral Line Full Width At Half-Maximum (Typ.) (I <sub>F</sub> =10mA)	Δλ	28	nm
Capacitance (Typ.) (V <sub>F</sub> =0V, f=1MHz)	С	35	pF

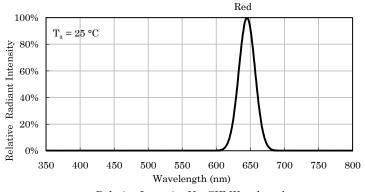
Part Number	Emitting Color	Emitting Material	Luminous Intensity CIE127-2007* (I <sub>F</sub> =10mA) ucd		Wavelength CIE127-2007* nm λP	Description
			min.	typ.		
XAMDK14C2	Red	AlGaInP	31000 9000*	67990 22990*	645*	Common Cathode, Rt. Hand Decimal.

<sup>\*</sup>Luminous intensity value and wavelength are in accordance with CIE127-2007 standards.

Apr 02,2022

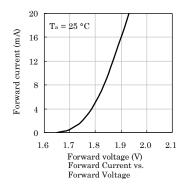
XDSB5367 V3-X Layout: Maggie L.

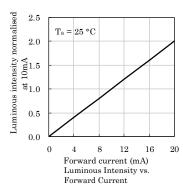


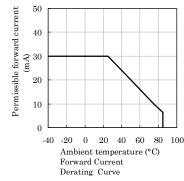


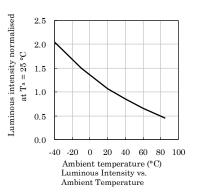
Relative Intensity Vs. CIE Wavelength

# **❖** Red

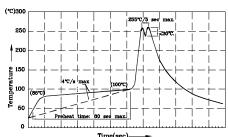








Wave Soldering Profile for Thru-Hole Products (Pb-Free Components)



- 1. Recommend pre-heat temperature of 105°C or less (as measured with a thermocouple attached to the LED pins) prior to immersion in the solder wave with a maximum solder bath temperature of 260°C
  2. Peak wave soldering temperature between 245°C ~ 255°C for 3 sec (5 sec
- 2.Peak wave soldering temperature between 245°C ~ 255°C for 3 secmax).
  3.Do not apply stress to the epoxy resin while the temperature is a 4.Pixtures should not incur stress on the component when mounting during soldering process.
  5.SAC 305 solder alloy is recommended.
  6.No more than one wave soldering pass.
  7.During wave soldering, the PCB top-surface temperature should be kept below 105°C.

#### Remarks:

If special sorting is required (e.g. binning based on forward voltage, luminous intensity / luminous flux, or wavelength),

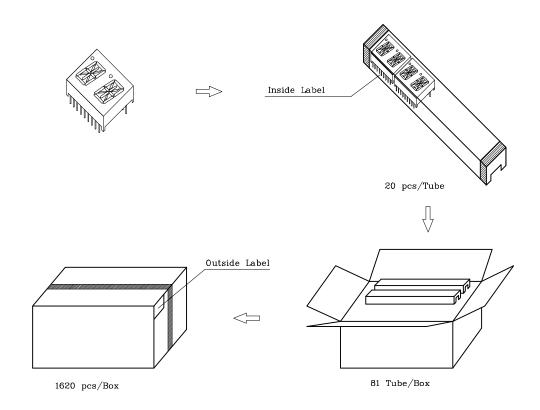
the typical accuracy of the sorting process is as follows:

- 1. Wavelength: +/-1nm
- 2. Luminous Intensity / Luminous Flux: +/-15%
- 3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.

13.5 mm (0.531") 14 Segment Dual Digit Alphanumeric Display

# PACKING & LABEL SPECIFICATIONS





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- 6. When any special process such as potting is required for LED assembly, please consult with SunLED representative before proceeding.
- 7. Additional technical notes are available at https://www.SunLEDusa.com/TechnicalNotes.asp

Apr 02,2022 XDSB5367 V3-X Layout: Maggie L.