



LED Display

Product Data Sheet

LTC-2684SKR

Spec No.: DS30-2001-266

Effective Date: 06/04/2011

Revision: A

LITE-ON DCC

RELEASE

BNS-OD-FC001/A4

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LED DISPLAY**LTC-2684SKR**
DATASHEET

<u>Rev</u>	<u>Description</u>	<u>By</u>
(Above data for PD and Customer tracking only)		
-	NPPR Received and Upload on OPNC	<u>Eric Wu</u> <u>Aug 14/2001</u>
A	Change REF's mat'l to PCM and no IR reflow process	<u>KITTISAK S</u> <u>April 29/2011</u>

SPEC. NO.: DS30-2001-266DATE : April 29'2011REV. NO. : APAGE NO. : 0 OF 5

CUSTOMER APPROVAL : _____

DATE : _____

FEATURES

- * 0.28 INCH (7.0mm) DIGIT HEIGHT.
- * LOW POWER REQUIREMENT.
- * CONTINUOUS UNIFORM SEGMENTS.
- * CATEGORIZED FOR LUMINOUS INTENSITY.
- * WIDE VIEWING ANGLE.
- * HIGH CONTRAST.
- * HIGH BRIGHTNESS.
- * SOLID STATE RELIABILITY
- * EASY MOUNTING ON P.C. BOARD
- * I.C. COMPATIBLE

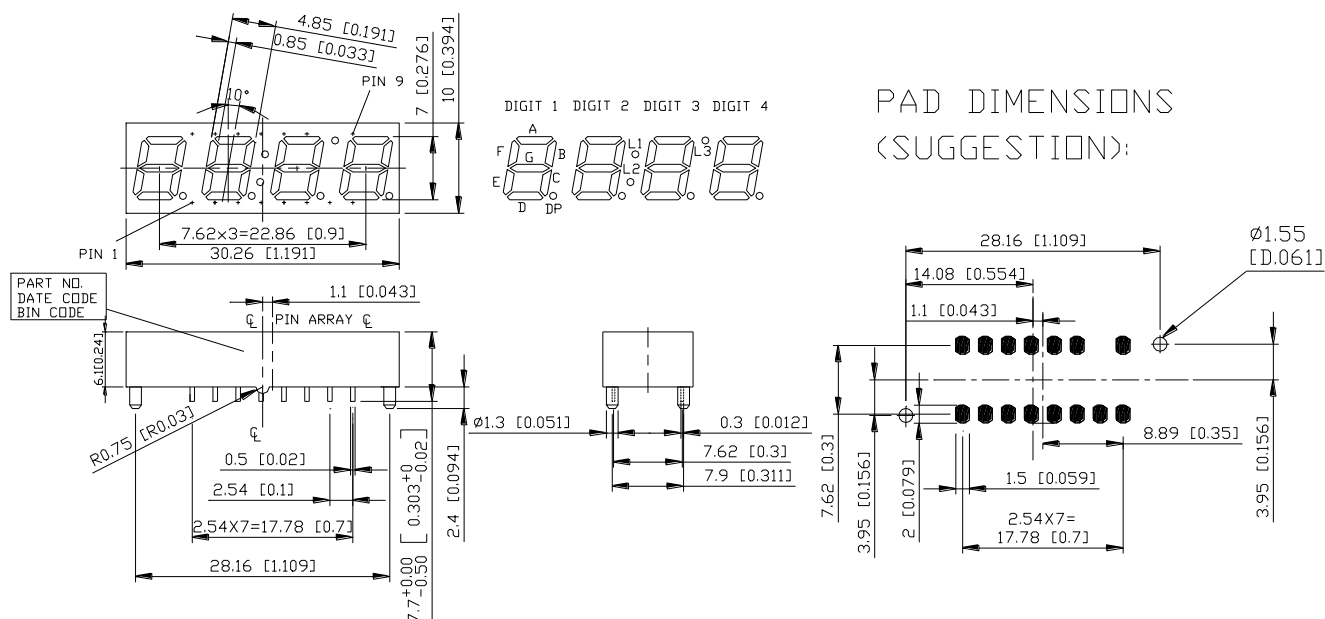
DESCRIPTION

The LTC-2684SKR is a 0.28 inch (7.0 mm) digit height quadruple display. This device utilizes AlInGaP Super Red LED chips, which are made from AlInGaP on a non-transparent GaAs substrate, and has a gray face and white segments. The AlInGaP Super Red seven segment displays are designed for applications requiring low power consumption. They are tested and selected for the excellent low current characteristics to ensure that the segments are matched at low current. Drive current as low as 1 mA per segment is available.

DEVICE

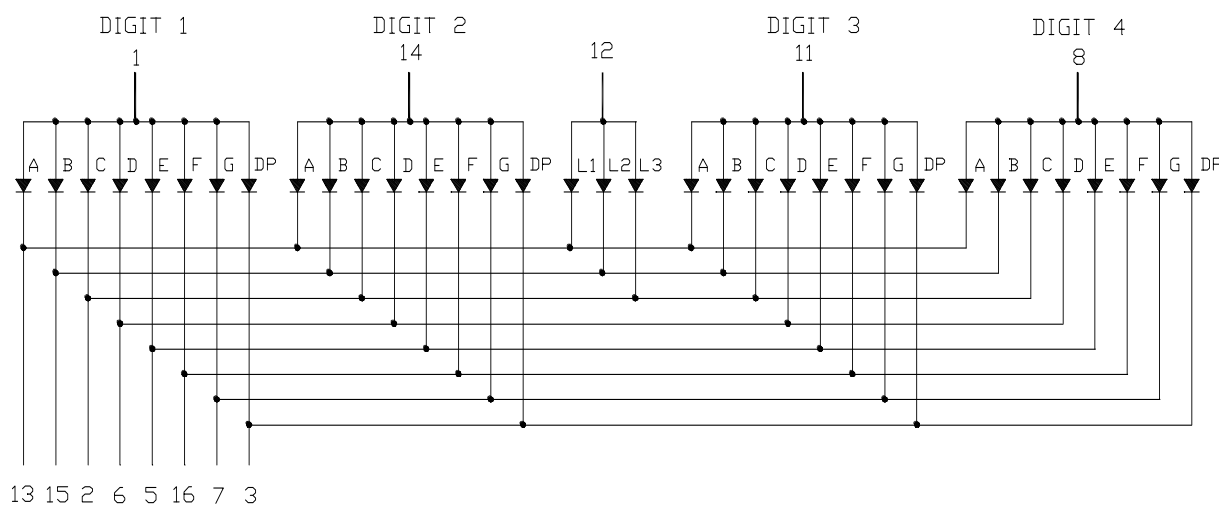
PART NO.	DESCRIPTION
AlInGaP Super Red	Multiplex Common Anode
LTC-2684SKR	Rt. Hand Decimal

PACKAGE DIMENSIONS



- NOTES: 1. All dimension are in millimeters. Tolerances are ± 0.25 mm, unless otherwise noted.
2. Pin tip 'shift' Tolerances are ± 0.40 mm.
3. Foreign material on segment ≤ 10 mils
4. Ink contamination (surface) ≤ 20 mils
5. Bending $\leq 1\%$ of reflector length
6. Bubble in segment ≤ 10 mils

INTERNAL CIRCUIT DIAGRAM



PIN CONNECTION

N O .	C O N N E C T I O N
1	C O M M O N A N O D E (D I G I T 1)
2	C A T H O D E C , L 3
3	C A T H O D E D P
4	N O C O N N E C T I O N
5	C A T H O D E E
6	C A T H O D E D
7	C A T H O D E G
8	C O M M O N A N O D E (D I G I T 2)
9	N O C O N N E C T I O N
10	N O P I N
11	C O M M O N A N O D E (D I G I T 3)
12	C O M M O N A N O D E L 1 , L 2 , L 3
13	C A T H O D E A , L 1
14	C O M M O N A N O D E (D I G I T 2)
15	C A T H O D E B , L 2
16	C A T H O D E F

ABSOLUTE MAXIMUM RATING

PARAMETER	MAXIMUM RATING	UNIT
Power Dissipation Per Segment	70	mW
Peak Forward Current Per Segment (1/10 Duty Cycle, 0.1ms Pulse Width)	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	

ELECTRICAL / OPTICAL CHARACTERISTICS AT Ta=25°C

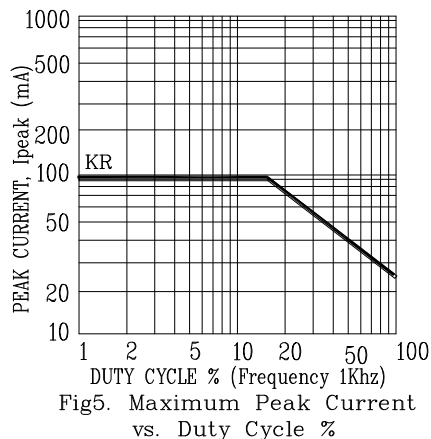
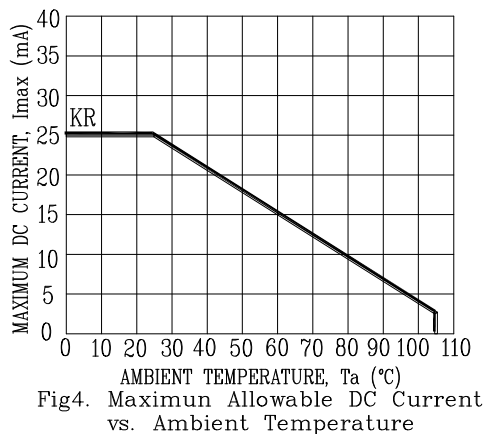
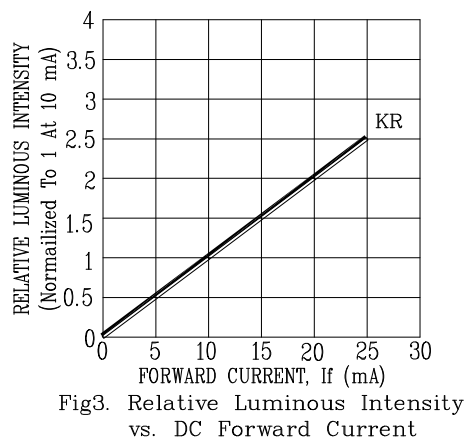
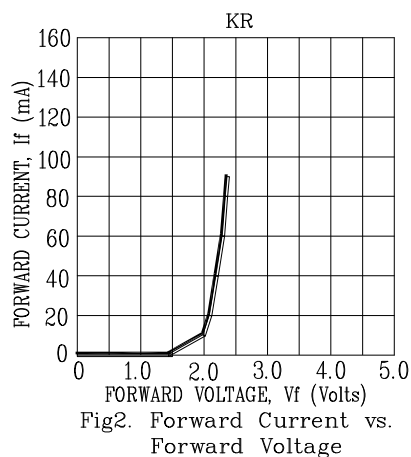
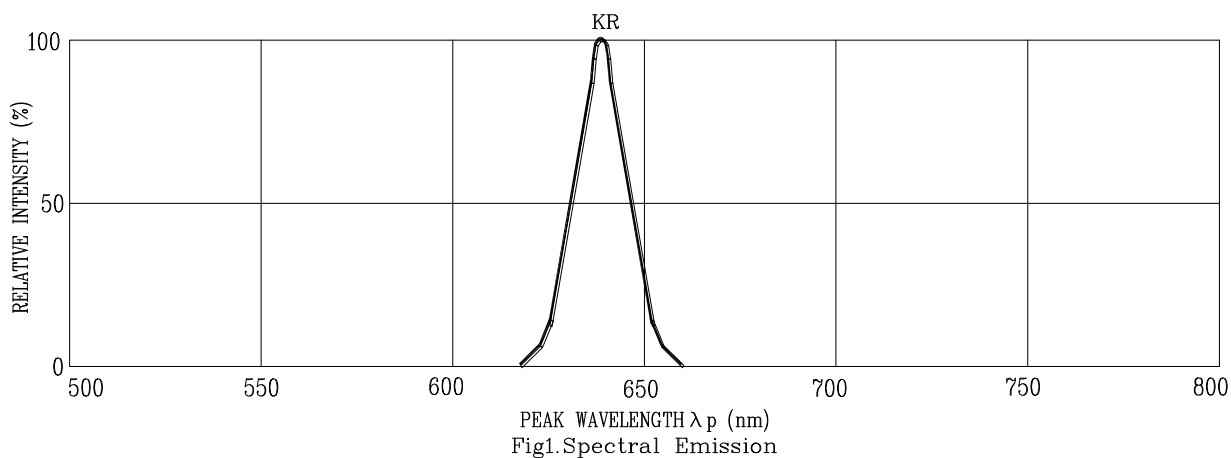
PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	I _v	500	1680		ucd	If=1mA
Peak Emission Wavelength	λ _p		639		nm	If=20mA
Special Line Half-Width	△λ		20		nm	If=20mA
Dominant Wavelength	λ _d		631		nm	If=20mA
Forward Voltage, Per Segment	V _f		2	2.6	V	If=20mA
Reverse Current, Per Segment	I _r			100	uA	V _r =5V
Luminous Intensity Matching Ratio	I _v -m			2:1		If=1 mA

Note: 1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE (Commision Internationale De L'Eclairage) eye-response curve.

2. Reverse voltage is only for IR test. It can not continue to operate at this situation.

TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

(25°C Ambient Temperature Unless Otherwise Noted)



NOTE : KR=AlInGaP SUPER RED