



LED Display

Product Data Sheet

LTF-4805M

Spec No.: DS30-2000-260

Effective Date: 10/15/2000

Revision: -

LITE-ON DCC

RELEASE

BNS-OD-FC001/A4

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FEATURES

- * 0.4 inch (10.16 mm) AND 0.3 inch (7.26 mm) DIGIT HEIGHT.
- * CONTINUOUS UNIFORM SEGMENTS.
- * LOW POWER REQUIREMENT.
- * EXCELLENT CHARACTERS APPEARANCE.
- * HIGH BRIGHTNESS & HIGH CONTRAST.
- * WIDE VIEWING ANGLE.
- * SOLID STATE RELIABILITY.

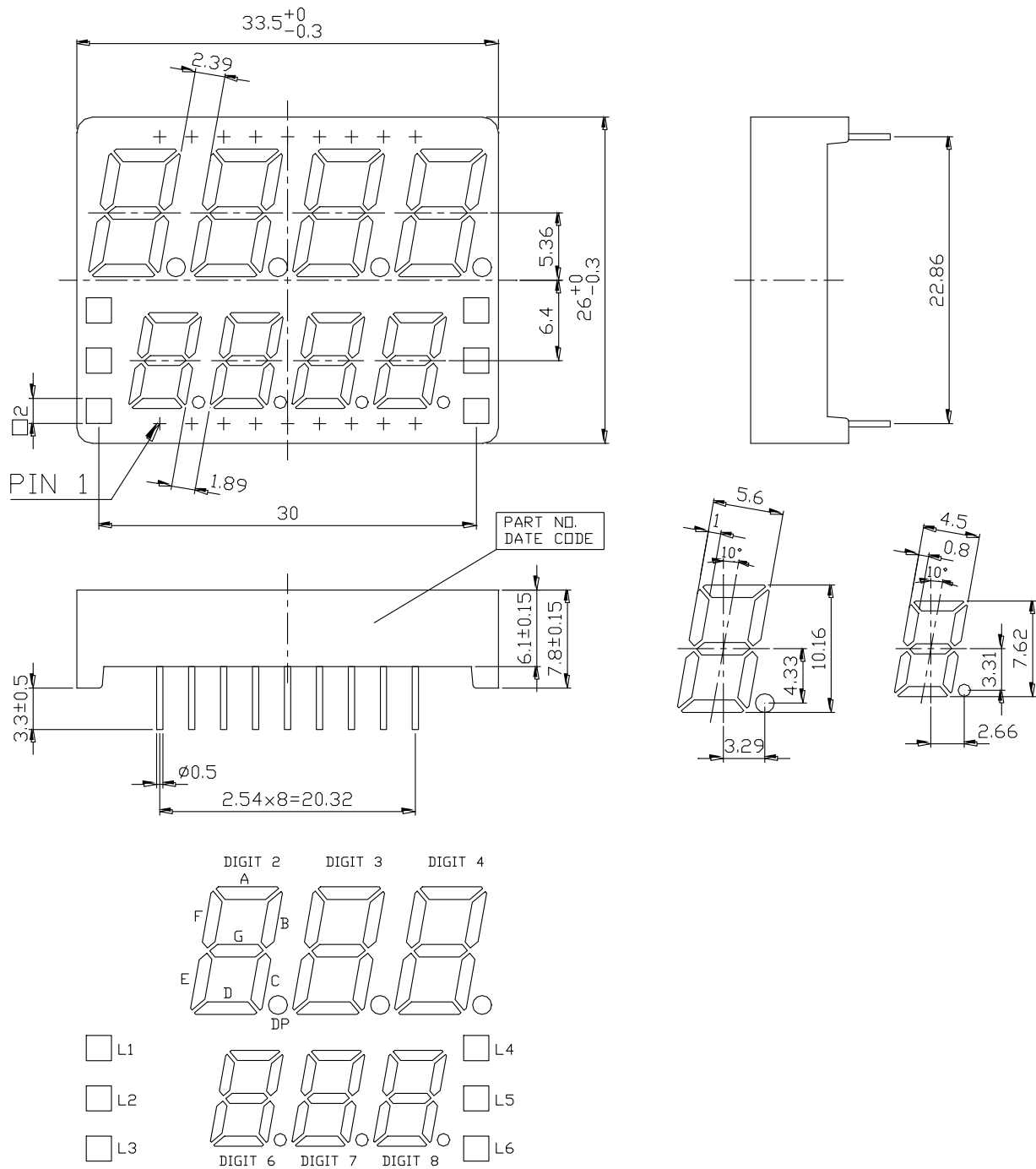
DESCRIPTION

The LTF-4805M is a 0.4 inch (10.16 mm) height (4 digits) and 0.3 inch (7.62 mm) height (4 digits) seven-segment display. This device utilizes high efficiency green LED chips which are made from GaP on GaP substrate. This device utilizes red orange & amber LED chips which are made from GaAsP on GaP substrate. The device has a gray face and white segments.

DEVICE

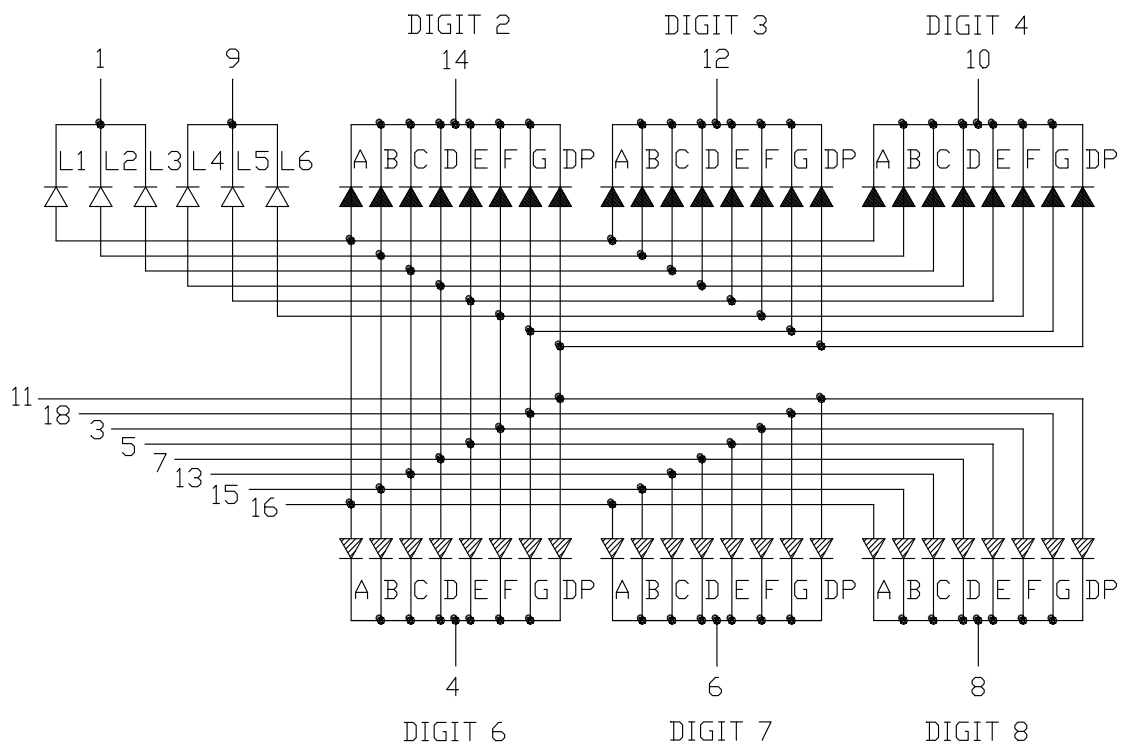
PART NO.	DESCRIPTION
MULTI-COLOR	MULTIPLEX
LTF-4805M	COMMON CATHODE

PACKAGE DIMENSIONS



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

INTERNAL CIRCUIT DIAGRAM



The "▲" stands for Hi-EFF. green chips.

The "▲" stands for amber chips.

The "▲" stands for red orange chips.

PIN CONNECTION

No.	CONNECTION
1	CATHODE L1, L2, L3
2	NO CONNECTION
3	COMMON ANODE F & L6
4	COMMON CATHODE (DIGIT 6)
5	COMMON ANODE E & L5
6	COMMON CATHODE (DIGIT 7)
7	COMMON ANODE D & L4
8	COMMON CATHODE (DIGIT 8)
9	CATHODE L4, L5, L6
10	COMMON CATHODE (DIGIT 4)
11	COMMON ANODE DP
12	COMMON CATHODE (DIGIT 3)
13	COMMON ANODE C & L3
14	COMMON CATHODE (DIGIT 2)
15	COMMON ANODE B & L2
16	COMMON ANODE A & L1
17	COMMON CATHODE DIGIT 1
18	COMMON ANODE G

ABSOLUTE MAXIMUM RATING AT Ta=25°C

PARAMETER	Hi-EFF. Green	Red Orange	Amber	UNIT
Power Dissipation Per Segment	75	75	75	mW
Peak Forward Current Per Segment (1/10 Duty Cycle, 0.1ms Pulse Width)	100	100	100	mA
Continuous Forward Current Per Segment	25	25	25	mA
Derating Linear From 25°C Per Segment	0.28	0.28	0.28	mA/°C
Reverse Voltage Per Segment	5	5	5	V
Operating Temperature Range	-35°C to +105°C			
Storage Temperature Range	-35°C to +105°C			
Solder Temperature: max 260°C for max 3sec at 1.6mm[1/16inch] below seating plane.				

ELECTRICAL / OPTICAL CHARACTERISTICS AT Ta=25°C
Hi-EFF. GREEN (DIGIT 2~4)

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	I _v	1300	3100		μcd	I _F =10mA
Peak Emission Wavelength	λ _p		565		nm	I _F =20mA
Spectral Line Half-Width	Δλ		30		nm	I _F =20mA
Dominant Wavelength	λ _d		569		nm	I _F =20mA
Forward Voltage Per Segment	V _F		2.1	2.6	V	I _F =20mA
Reverse Current Per Segment	I _R			100	μA	V _R =5V
Luminous Intensity Matching Ratio	I _v -m			2:1		I _F =10mA

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

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

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	I _v	800	2200		μcd	I _F =10mA
Peak Emission Wavelength	λ _p		630		nm	I _F =20mA
Spectral Line Half-Width	Δλ		40		nm	I _F =20mA
Dominant Wavelength	λ _d		621		nm	I _F =20mA
Forward Voltage Per Segment	V _F		2	2.6	V	I _F =20mA
Reverse Current Per Segment	I _R			100	μA	V _R =5V
Luminous Intensity Matching Ratio	I _v -m			2:1		I _F =10mA

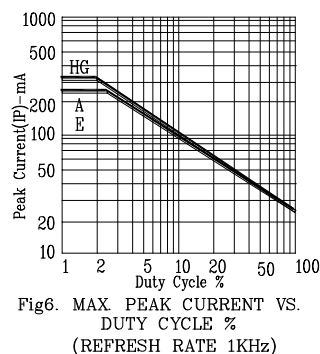
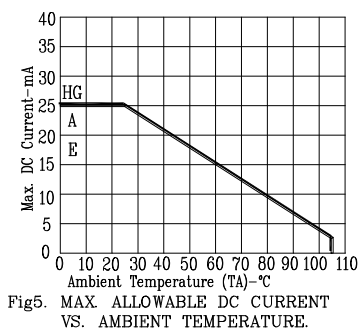
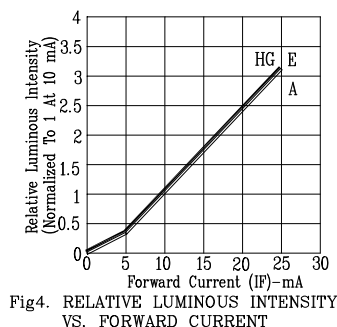
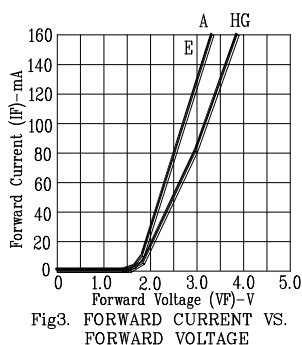
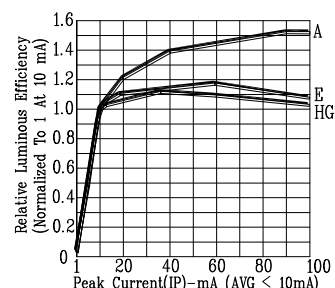
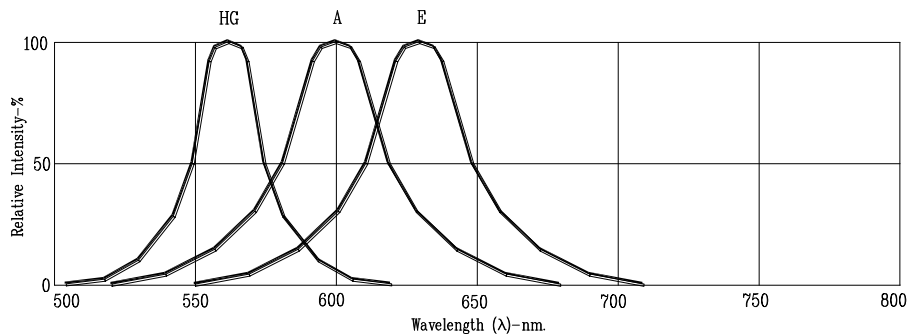
AMBER (DIGIT 6~8)

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	I _v	200	650		μcd	I _F =10mA
Peak Emission Wavelength	λ _p		610		nm	I _F =20mA
Spectral Line Half-Width	Δλ		35		nm	I _F =20mA
Dominant Wavelength	λ _d		602		nm	I _F =20mA
Forward Voltage Per Segment	V _F		2.1	2.6	V	I _F =20mA
Reverse Current Per Segment	I _R			100	μA	V _R =5V
Luminous Intensity Matching Ratio	I _v -m			2:1		I _F =10mA

Note: Luminous intensity is measured with a light sensor and filters 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: HG=HI-EFF. GREEN & A=AMBER & E=RED ORANGE