

## **FEATURES**

- \* 0.56-INCH (14.22-mm) DIGIT HEIGHT.
- \* WIDE SUPPLY VOLTAGE OPERATION.
- \* SERIAL DATA INPUT.
- \* CONSTANT CURRENT DRIVERS.
- \* CONTINUOUS BRIGHTNESS CONTROL.
- \* SOLID STATE RELIABILITY-LONG OPERATION LIFE.
- \* WIDE VIEWING ANGLE.
- \* TTL COMPATIBLE.

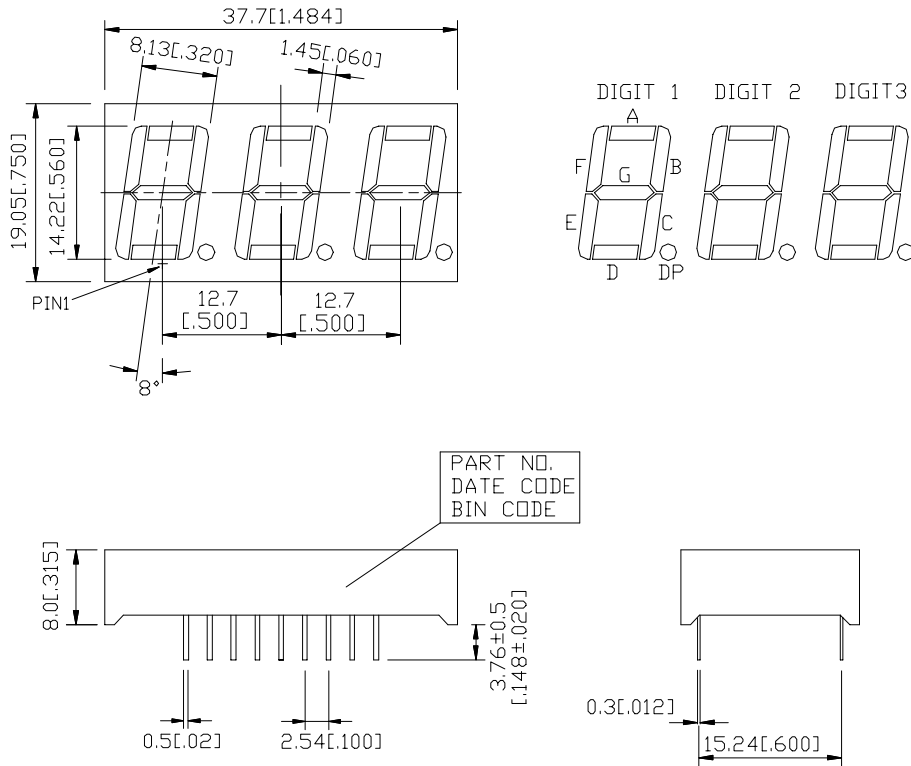
## **DESCRIPTION**

The LTM-8522HR is a 0.56-inch (14.22-mm) numeric display modules, and a built-in M5450 MOS integrated circuits. The integrated circuit contains serial data input, 35 bits shift register. 34 LED driver output and a brightness control. This device utilizes high efficiency red LED chips, which are made from GaAsP on a transparent GaP substrate, and has a red face and red segments. The MOS integrated circuits are produced with N-channel silicon gate technology.

## **DEVICE**

<b>PART NO.</b>	<b>DESCRIPTION</b>
Hi-Eff. Red	3 Digit
LTM-8522HR	Rt. Hand Decimal

## PACKAGE DIMENSIONS



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

**PIN CONNECTION**

<b>No.</b>	<b>CONNECTION</b>
1	VSS
2	VLED
3	VLED
4	BIT 25 OUTPUT
5	BIT 26 OUTPUT
6	BIT 27 OUTPUT
7	BIT 28 OUTPUT
8	BIT 29 OUTPUT
9	BIT 30 OUTPUT
10	BIT 31 OUTPUT
11	BIT 32 OUTPUT
12	BIT 33 OUTPUT
13	BIT 34 OUTPUT
14	DATA ENABLE
15	DATA INPUT
16	CLOCK INPUT
17	VDD
18	BRT. CONTROL

## ABSOLUTE MAXIMUM RATING AT T<sub>A</sub>=25°C

PARAMETER	Symbol	Min.	Max.	UNIT
Supply Voltage *1	VDD	-0.3	12	V
Input Voltage	V <sub>I</sub>	-0.3	12	V
Off State Output Voltage	V <sub>O(off)</sub>		12	V
LED Supply Voltage	V <sub>LED</sub>	2.8	3.5	V
Power Dissipation of IC *2	PD(IC)		335	mW
Supply Current	IDD		8.5	mA
Operating Temperature Range	Top	-20	+60	°C
Storage Temperature Range	T <sub>stg</sub>	-20	+60	°C
Solder Temperature 1/16 inch Below Seating Plane for 3 Seconds at 260°C				

## RECOMMENDED OPERATING CONDITION AT T<sub>A</sub>=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Supply Voltage	VDD	4.75		11	V	
Input Voltage						
Logical "0" Level		-0.3		0.8	V	±10μA Input Bias
Logical "1" Level	V <sub>I</sub>	2.2		VDD	V	4.75V < VDD < 5.25V
Logical "1" Level		VDD -2		VDD	V	VDD > 5.25V
Brightness Input Current	I <sub>B</sub>	0		0.75	mA	
Brightness Input Voltage	V <sub>B</sub>	3		4.3	V	Input Current=750