

LM12357C/D Series – 1.20 inch 5x7 Dot Matrix LED Display



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES



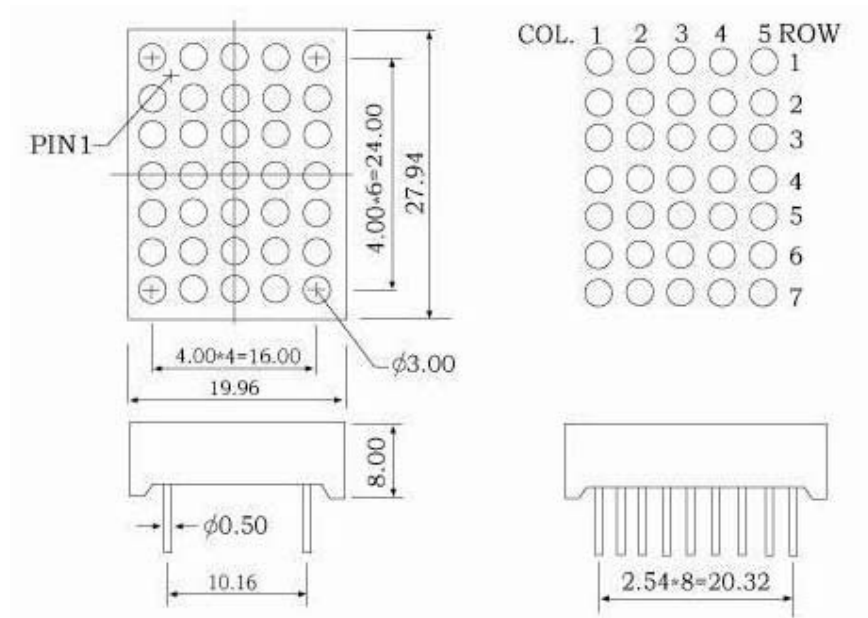
Features

- 27.94mm (0.70inch) matrix height
- Dot size: Diameter 3.00mm
- Pitch: 4.00mm
- Wide viewing angle
- Range of emitted colors
- I.C. compatible
- Low power consumption
- White dot, grey or black face
- RoHS compliant

Available options

- Alternative emitting luminosity:
Standard or high brightness version
- Alternative emitted color
- Alternative dot color
- Alternative face color
- Both CA or CC versions are available
- Cropped terminal pins

Package Dimensions

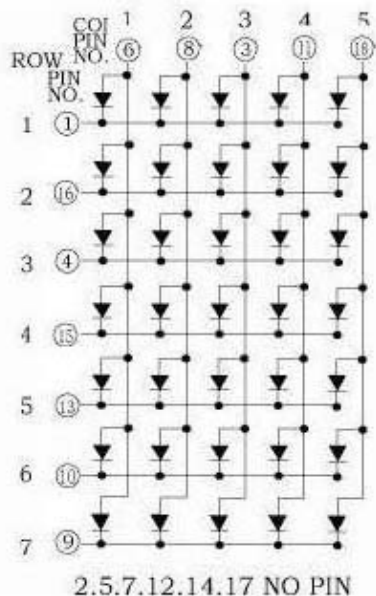


Notes:

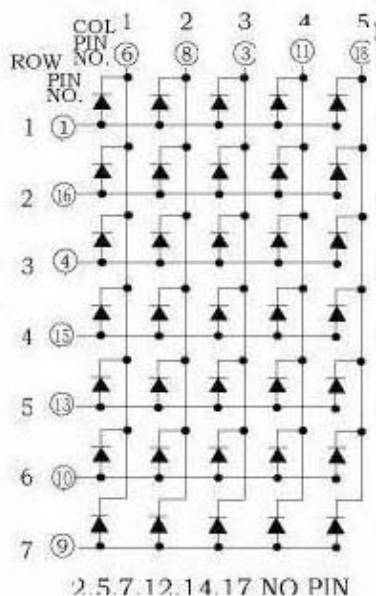
1. All dimensions are in millimeters (inches), Tolerance is $\pm 0.25\text{mm}$ (0.01inch) unless other wise noted.
2. Specifications are subject to change without notice.
3. The gap between the reflector and PCB shall not exceed 0.25mm.

Internal Circuit Diagram

Common Cathode Row
LM12357C



Common Anode Row
LM12357D



Selection Guide

Part No.		Chip			Iv@IF=20mA	
Common Cathode Row	Common Anode Row	Material	Color	WLD	One Dot	
					Min.	Typ.
LM12357CR	LM12357DR	GaAlAs	Super Red	627	8	10
LM12357CD	LM12357DD	GaAlAs	Hi-Red	627	18	25
LM12357CO	LM12357DO	GaAsP	Orange	610	7	9
LM12357CY	LM12357DY	GaAsP	Yellow	588	8	10
LM12357CG	LM12357DG	GaP	Green	568	7	9
LM12357CUR	LM12357DUR	AlGaInP	Ultra Red	627	30	45
LM12357CUO	LM12357DUO	AlGaInP	Ultra Orange	610	45	60
LM12357CUA	LM12357DUA	AlGaInP	Ultra Amber	605	30	45
LM12357CUY	LM12357DUY	AlGaInP	Ultra Yellow	595	30	45
LM12357CUG	LM12357DUG	AlGaInP	Ultra Green	573	30	45
LM12357CPG	LM12357DPG	InGaN	Pure Green	525	120	300
LM12357CUB	LM12357DUB	InGaN	Ultra Blue	470	30	45
LM12357CUW	LM12357DUW	InGaN	Ultra White	\	100	120
Unit:	\	\	\	nm	mcd	mcd

Electrical Characteristics & Absolute Maximum Ratings

Color		Electrical Characteristics ^[1]			Absolute Maximum Ratings ^[1]		
		V _F @ I _F =20mA ^[2]		Reverse Current VR=5V	Power Dissipation	DC Forward Current	Peak Forward Current ^[3]
		Typ.	Max.				
Super Red	Per Dot	1.8	2.2	30	60	25	100
Hi-Red	Per Dot	1.8	2.2	30	60	25	100
Orange	Per Dot	2.1	2.5	30	80	30	100
Yellow	Per Dot	2.1	2.5	30	80	30	100
Green	Per Dot	2.2	2.5	30	80	30	100
Ultra Red	Per Dot	1.9	2.6	30	60	30	100
Ultra Orange	Per Dot	2.0	2.6	30	65	30	100
Ultra Amber	Per Dot	2.0	2.6	30	65	30	100
Ultra Yellow	Per Dot	2.0	2.6	30	65	30	100
Ultra Green	Per Dot	2.1	2.6	30	75	30	100
Pure Green	Per Dot	3.5	4.0	30	110	30	100
Ultra Blue	Per Dot	3.5	4.0	30	120	30	100
Ultra White	Per Dot	3.5	4.0	30	120	30	100
Unit:	\	V	V	uA	mW	mA	mA

Notes:

1. At Ta = 25 °C.
2. Forward voltage at forward current = 20mA.
3. Peak forward current at 1/10 Duty Cycle, 0.1ms Pulse.