

LM23088E/F Series – 2.30 inch 8x8 Dot Matrix LED Display



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES



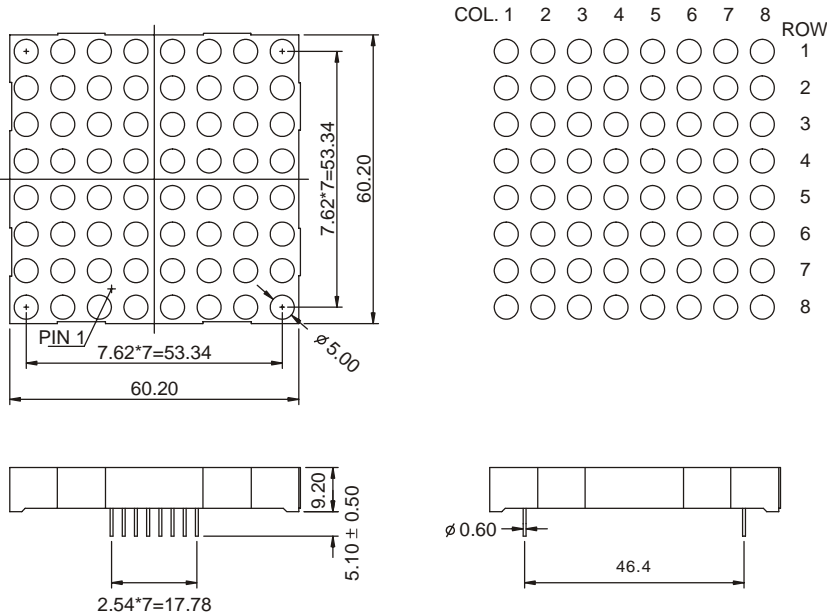
Features

- 60.20 mm (2.30 inch) matrix height
- Dot size: Diameter 5.00 mm
- Pitch: 7.62 mm
- 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

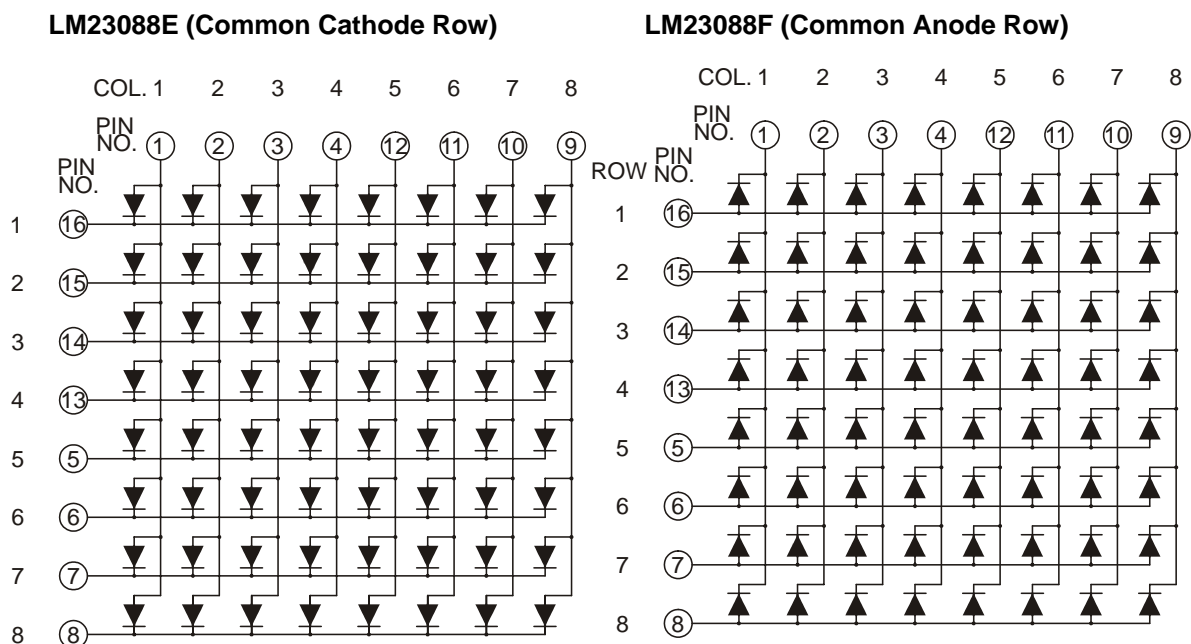
Package Dimensions



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



Selection Guide

Part No.		Chip			Iv@IF=20mA	
Common Cathode Row	Common Anode Row	Material	Color	WLD	One Dot	
					Min.	Typ.
LM23088ER	LM23088FR	GaAlAs	Super Red	640	8	10
LM23088ED	LM23088FD	GaAlAs	Hi-Red	640	18	25
LM23088EO	LM23088FO	GaAsP	Orange	625	7	9
LM23088EY	LM23088FY	GaAsP	Yellow	588	8	10
LM23088EG	LM23088FG	GaP	Green	568	7	9
LM23088EUR	LM23088FUR	AlGaInP	Ultra Red	640	30	45
LM23088EUO	LM23088FUO	AlGaInP	Ultra Orange	625	45	60
LM23088EUA	LM23088FUA	AlGaInP	Ultra Amber	605	30	45
LM23088EUY	LM23088FUY	AlGaInP	Ultra Yellow	595	30	45
LM23088EUG	LM23088FUG	AlGaInP	Ultra Green	573	30	45
LM23088EPG	LM23088FPG	InGaN	Pure Green	525	120	300
LM23088EUB	LM23088FUB	InGaN	Ultra Blue	470	30	45
LM23088EUW	LM23088FUW	SMD	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.