

TOM-788AE-N4

Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-788AE-N4	GaAsP	Orange	Gray	White

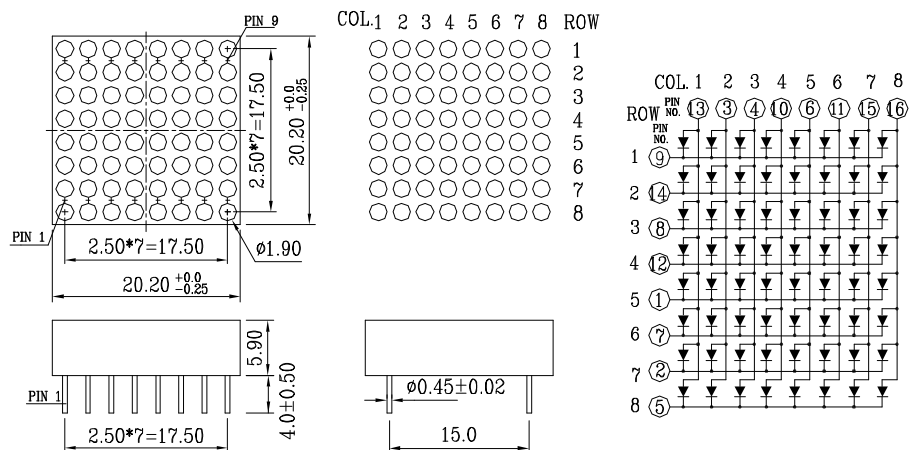
Features

- (8x8) \varnothing 1.90mm dot matrix
- Row common cathode
- I.C. compatible
- Low power requirement
- RoHS compliant

Applications

- Audio equipment
- Instrument panels
- Indoor display

Package Dimensions & Internal Circuit Diagram



Notes:

1. All dimensions are in millimeters, tolerance: ± 0.25 ; Angle: $\pm 0.1^\circ$ unless otherwise noted.
2. Specifications are subject to change without notice.

Absolute Maximum Rating @ Ta=25°C

Parameter	Maximum Rating	Unit
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	80	mA
Power Dissipation	75	mW
Continuous Forward Current	20	mA
Recommend Operating Current	12	mA
Reverse Voltage	5	V
Operating Temperature Range	-25°C to +85°C	
Storage Temperature Range	-30°C to +85°C	
Lead-Free Solder Temperature (1/16 Inch Below Seating Plane)	260°C for 3 Sec	

Electrical / Optical Characteristic @ Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition	Grade
Luminous Intensity	I _v		4113		ucd	I _F =10mA	
Peak Wavelength	λ _p		630		nm	I _F =20mA	
Spectral Line Half-Width	Δλ		35		nm	I _F =20mA	
Forward Voltage	V _F	1.8	2.1	2.4	V	I _F =20mA	
Reverse Current	I _R			20	μA	V _R =5V	
Luminous Intensity Matching Rate	I _v -m			1.5:1		I _F =20mA	

TOM-788AMA-B

Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-788AMA-B	AlGaInP	Ultra-Amber	Black	White

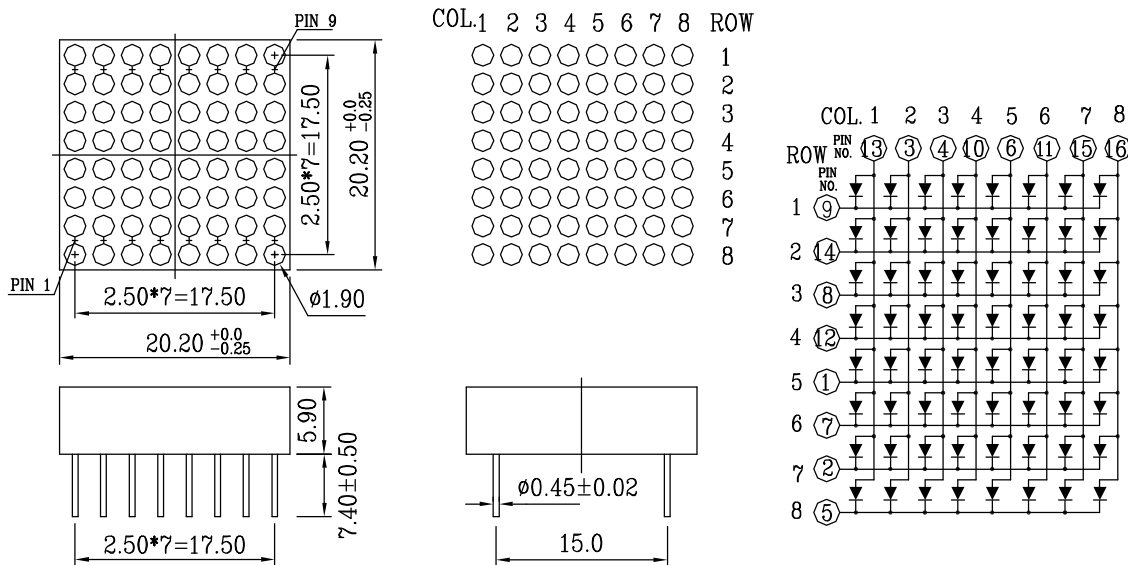
Features

- (8x8) \varnothing 1.90mm dot matrix
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- I.C. compatible
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Applications

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Package Dimensions & Internal Circuit Diagram



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Absolute Maximum Rating @ Ta=25°C

Parameter	Maximum Rating	Unit
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	80	mA
Power Dissipation Per Dot	75	mW
Continuous Forward Current	20	mA
Recommend Operating Current	12	mA
Reverse Voltage	5	V
Operating Temperature Range	-25°C to +85°C	
Storage Temperature Range	-30°C to +85°C	
Lead-Free Solder Temperature(1/16 Inch Below Seating Plane)	260°C for 3 Sec	

Electrical / Optical Characteristic @ Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition	Grade
Luminous Intensity	I _v		21937		ucd	I _F =10mA	
Dominant Wavelength	λ _d		605		nm	I _F =20mA	
Spectral Line Half-Width	Δλ		18		nm	I _F =20mA	
Forward Voltage	V _F	1.8	2.0	2.3	V	I _F =20mA	
Reverse Current	I _R			100	μA	V _R =5V	
Luminous Intensity Matching Rate	I _v -m			2.0:1		I _F =20mA	

TOM-788AMB-B

Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-788AMB-B	InGaN	Hi-blue	Black	White

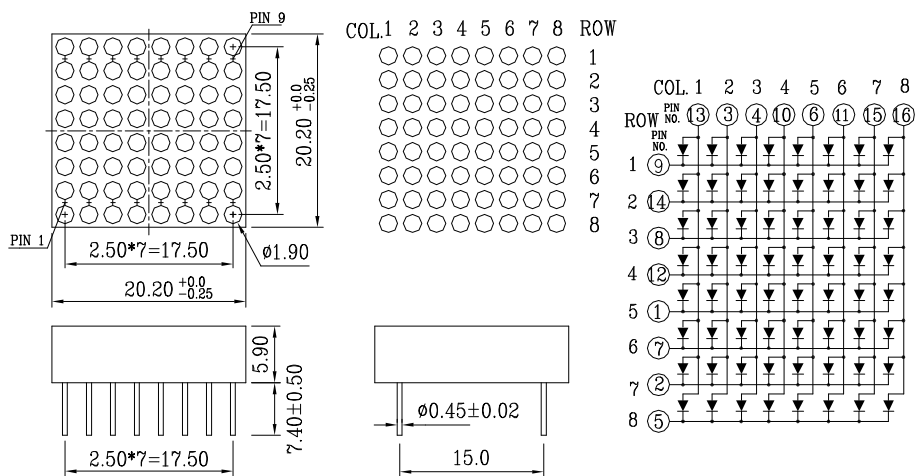
Features

- (8x8) \varnothing 1.90mm dot matrix
- Row common cathode
- I.C. compatible
- Low power requirement
- RoHS compliant

Applications

- Audio equipment
- Instrument panels
- Indoor display

Package Dimensions & Internal Circuit Diagram



Notes:

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Absolute Maximum Rating @ Ta=25°C

Parameter	Maximum Rating	Unit
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	80	mA
Power Dissipation Per Dot	105	mW
Continuous Forward Current	20	mA
Recommend Operating Current	12	mA
Reverse Voltage	5	V
Operating Temperature Range	-25°C to +85°C	
Storage Temperature Range	-30°C to +85°C	
Lead-Free Solder Temperature(1/16 Inch Below Seating Plane)	260°C for 3 Sec	

Electrical / Optical Characteristic @ Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition	Grade
Luminous Intensity	I _v		49362		ucd	I _F =10mA	
Dominant Wavelength	λ _d		465		nm	I _F =20mA	
Spectral Line Half-Width	Δλ		26		nm	I _F =20mA	
Forward Voltage	V _F		3.5	4.0	V	I _F =20mA	
Reverse Current	I _R			100	μA	V _R =5V	
Luminous Intensity Matching Rate	I _v -m			2.0:1		I _F =20mA	

TOM-788AMB-N

Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-788AMB-N	InGaN	Hi-blue	Gray	White

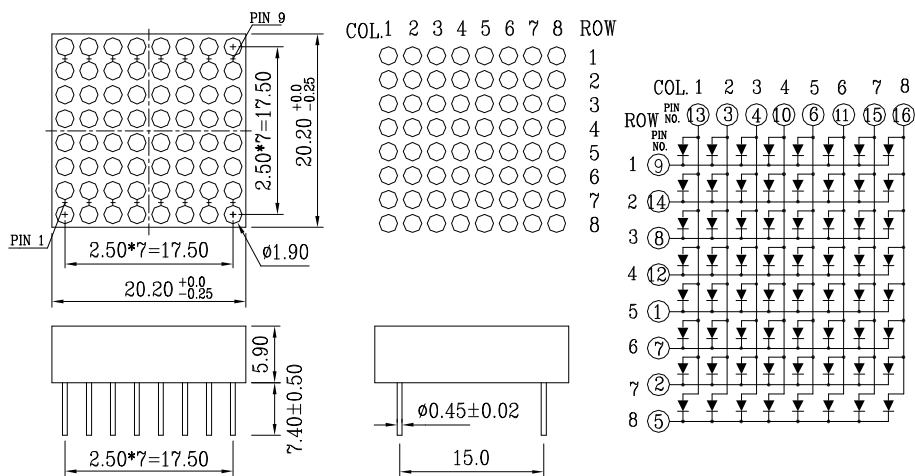
Features

- (8x8) \varnothing 1.90mm dot matrix
- Row common cathode
- I.C. compatible
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Applications

- Audio equipment
- Instrument panels
- Indoor display

Package Dimensions & Internal Circuit Diagram



Notes:

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2. Specifications are subject to change without notice.

Absolute Maximum Rating @ Ta=25°C

Parameter	Maximum Rating	Unit
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width) Per Dot	80	mA
Power Dissipation Per Dot	105	mW
Continuous Forward Current Per Dot	20	mA
Recommend Operating Current Per Dot	12	mA
Reverse Voltage Per Dot	5	V
Operating Temperature Range	-25°C to +85°C	
Storage Temperature Range	-30°C to +85°C	
Lead-Free Solder Temperature(1/16 Inch Below Seating Plane)	260°C for 3 Sec	

Electrical / Optical Characteristic @ Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition	Grade
Average Luminous Intensity Per Dot	I _v		49362		ucd	I _F =10mA	
Dominant Wavelength	λ _d		465		nm	I _F =20mA	
Spectral Line Half-Width	Δλ		26		nm	I _F =20mA	
Forward Voltage Per Dot	V _F		3.5	4.0	V	I _F =20mA	
Reverse Current Per Dot	I _R			100	μA	V _R =5V	
Luminous Intensity Matching Rate	I _v -m			2.0:1		I _F =20mA	

The DISPLAYS should be kept at 30°C or less and 60%RH or less. The DISPLAYS should be used within one year.

TOM-788AMRL-1B

Dot Matrix Display LED



Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-788AMRL-1B	AlGaInP	Ultra-red	Black	White

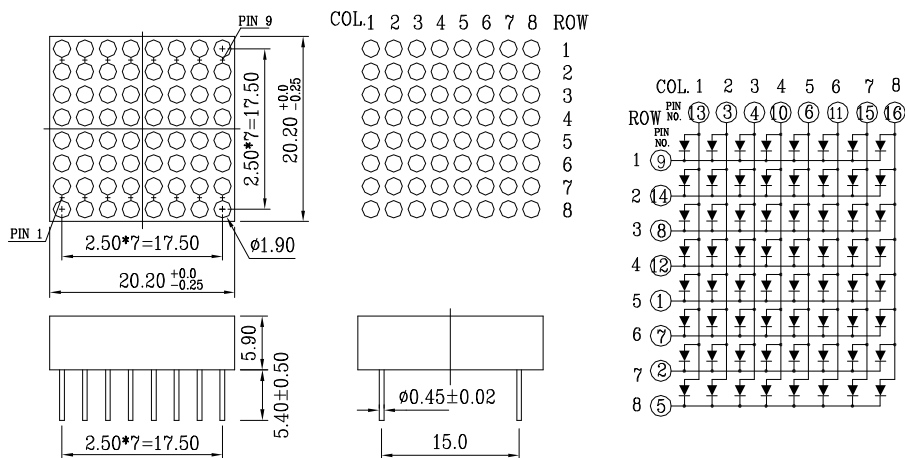
Features

- (8x8) \varnothing 1.90mm dot matrix
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- I.C. compatible
- Low power requirement
- RoHS compliant

Applications

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- Instrument panels
- Indoor display

Package Dimensions & Internal Circuit Diagram



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Absolute Maximum Rating @ Ta=25°C

Parameter	Maximum Rating	Unit
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	80	mA
Power Dissipation	75	mW
Continuous Forward Current	20	mA
Recommend Operating Current	12	mA
Reverse Voltage	5	V
Operating Temperature Range	-25°C to +85°C	
Storage Temperature Range	-30°C to +85°C	
Lead-Free Solder Temperature (1/16 Inch Below Seating Plane)	260°C for 3 Sec	

Electrical / Optical Characteristic @ Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition	Grade
Luminous Intensity	I _v		15524		ucd	I _F =10mA	
Dominant Wavelength	λ _d		640		nm	I _F =20mA	
Spectral Line Half-Width	Δλ		15		nm	I _F =20mA	
Forward Voltage	V _F	1.8	2.0	2.3	V	I _F =20mA	
Reverse Current	I _R			100	μA	V _R =5V	
Luminous Intensity Matching Rate	I _v -m			2.0:1		I _F =20mA	

TOM-788AMRL-1N

Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-788AMRL-1N	AlGaInP	Ultra-red	Gray	White

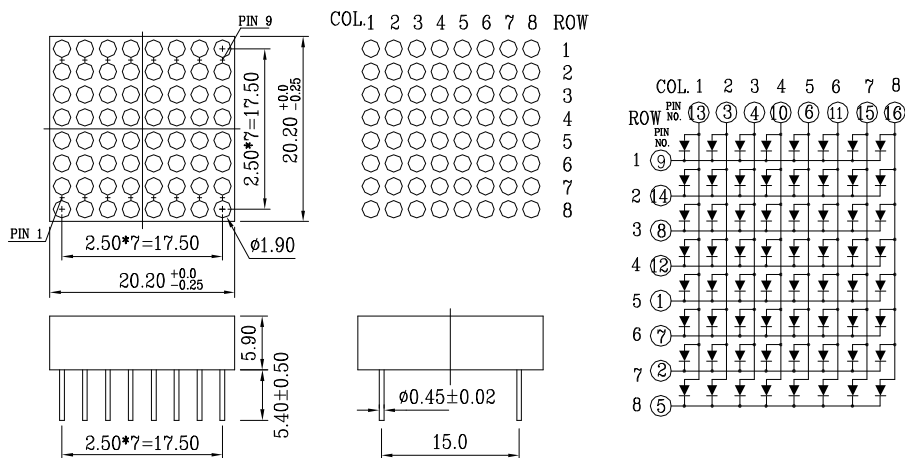
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Absolute Maximum Rating @ Ta=25°C

Parameter	Maximum Rating	Unit
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	80	mA
Power Dissipation	75	mW
Continuous Forward Current	20	mA
Recommend Operating Current	12	mA
Reverse Voltage	5	V
Operating Temperature Range	-25°C to +85°C	
Storage Temperature Range	-30°C to +85°C	
Lead-Free Solder Temperature (1/16 Inch Below Seating Plane)	260°C for 3 Sec	

Electrical / Optical Characteristic @ Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition	Grade
Luminous Intensity	I _v		15524		ucd	I _F =10mA	
Dominant Wavelength	λ _d		640		nm	I _F =20mA	
Spectral Line Half-Width	Δλ		15		nm	I _F =20mA	
Forward Voltage	V _F	1.8	2.0	2.3	V	I _F =20mA	
Reverse Current	I _R			100	μA	V _R =5V	
Luminous Intensity Matching Rate	I _v -m			2.0:1		I _F =20mA	

TOM-788AMRL-B

Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-788AMRL-B	AlGaInP	Ultra-red	Black	White

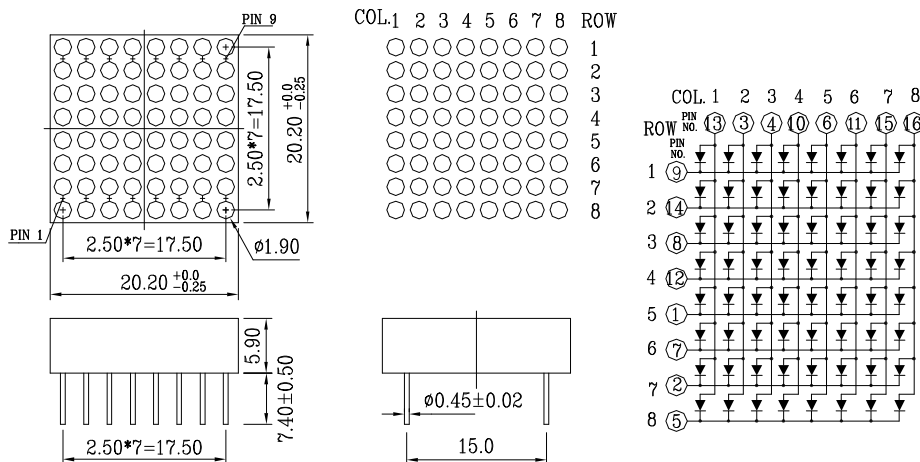
Features

- (8x8) \varnothing 1.90mm dot matrix
- Row common cathode
- I.C. compatible
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Applications

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Package Dimensions & Internal Circuit Diagram



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Absolute Maximum Rating @ Ta=25°C

Parameter	Maximum Rating	Unit
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	80	mA
Power Dissipation Per Dot	75	mW
Continuous Forward Current	20	mA
Recommend Operating Current	12	mA
Reverse Voltage	5	V
Operating Temperature Range	-25°C to +85°C	
Storage Temperature Range	-30°C to +85°C	
Lead-Free Solder Temperature(1/16 Inch Below Seating Plane)	260°C for 3 Sec	

Electrical / Optical Characteristic @ Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition	Grade
Luminous Intensity	I _v		15524		ucd	I _F =10mA	
Dominant Wavelength	λ _d		640		nm	I _F =20mA	
Spectral Line Half-Width	Δλ		15		nm	I _F =20mA	
Forward Voltage	V _F	1.8	2.0	2.3	V	I _F =20mA	
Reverse Current	I _R			100	μA	V _R =5V	
Luminous Intensity Matching Rate	I _v -m			2.0:1		I _F =20mA	

TOM-788AMRL-N

Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-788AMRL-N	AlGaInP	Ultra-red	Gray	White

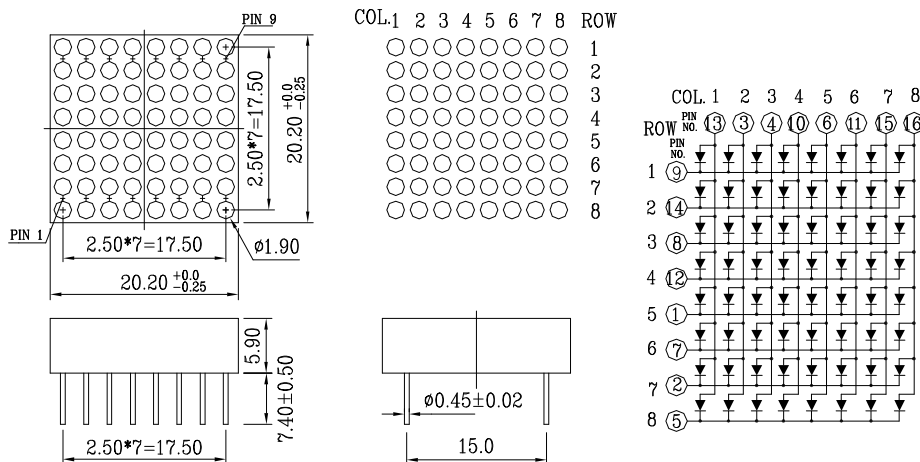
Features

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Applications

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- Indoor display

Package Dimensions & Internal Circuit Diagram



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Absolute Maximum Rating @ Ta=25°C

Parameter	Maximum Rating	Unit
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	80	mA
Power Dissipation Per Dot	75	mW
Continuous Forward Current	20	mA
Recommend Operating Current	12	mA
Reverse Voltage	5	V
Operating Temperature Range	-25°C to +85°C	
Storage Temperature Range	-30°C to +85°C	
Lead-Free Solder Temperature(1/16 Inch Below Seating Plane)	260°C for 3 Sec	

Electrical / Optical Characteristic @ Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition	Grade
Luminous Intensity	I _v		15524		ucd	I _F =10mA	
Dominant Wavelength	λ _d		640		nm	I _F =20mA	
Spectral Line Half-Width	Δλ		15		nm	I _F =20mA	
Forward Voltage	V _F	1.8	2.0	2.3	V	I _F =20mA	
Reverse Current	I _R			100	μA	V _R =5V	
Luminous Intensity Matching Rate	I _v -m			2.0:1		I _F =20mA	

TOM-788AMR-N

Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-788AMR-N	AlGaInP	Ultra-red	Gray	White

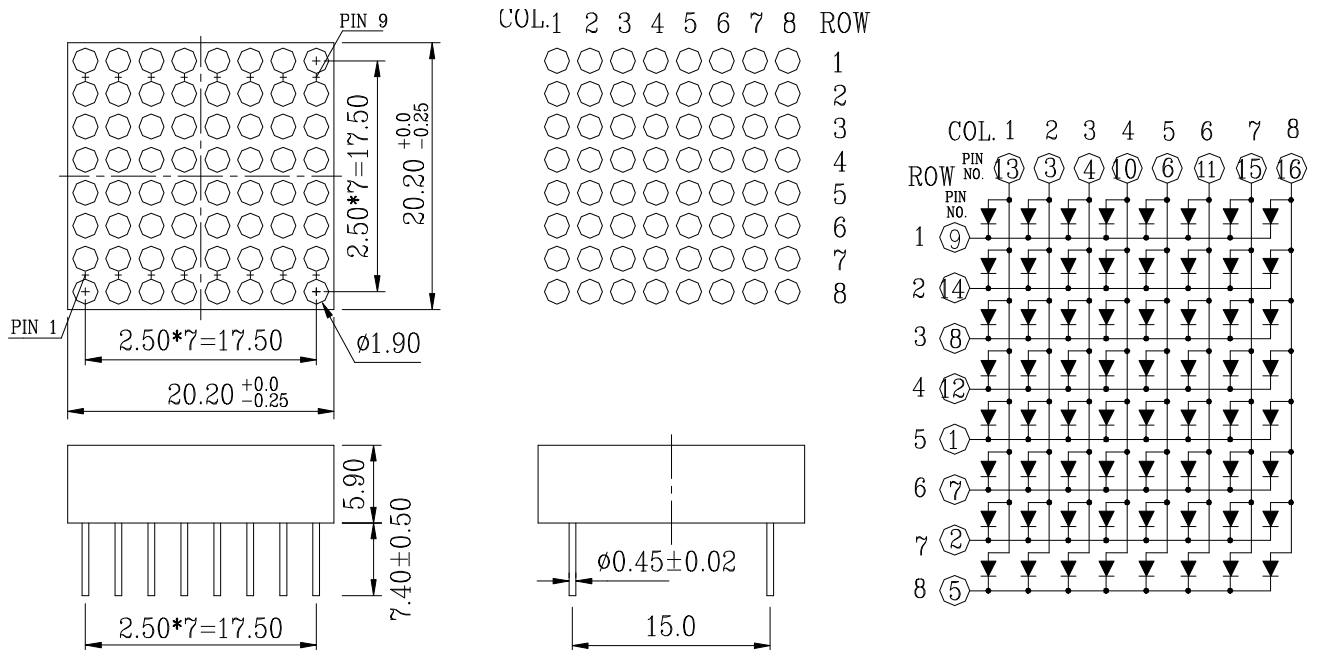
Features

- (8x8) \varnothing 1.90mm dot matrix
- Row common cathode
- I.C. compatible
- Low power requirement
- RoHS compliant

Applications

- Audio equipment
- Instrument panels
- Indoor display

Package Dimensions & Internal Circuit Diagram



Notes:

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Absolute Maximum Rating @ Ta=25°C

Parameter	Maximum Rating	Unit
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	80	mA
Power Dissipation Per Dot	75	mW
Continuous Forward Current Per Dice	20	mA
Recommend Operating Current Per Dice	12	mA
Reverse Voltage Per Dice	5	V
Operating Temperature Range	-25°C to +85°C	
Storage Temperature Range	-30°C to +85°C	
Lead-Free Solder Temperature(1/16 Inch Below Seating Plane)	260°C for 3 Sec	

Electrical / Optical Characteristic @ Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition	Grade
Average Luminous Intensity Per Dot	I _v		15524		ucd	I _F =10mA	
Dominant Wavelength	λ _d		630		nm	I _F =20mA	
Spectral Line Half-Width	Δλ		15		nm	I _F =20mA	
Forward Voltage Per Dice	V _F	1.8	2.0	2.3	V	I _F =20mA	
Reverse Current Per Dice	I _R			100	μA	V _R =5V	
Luminous Intensity Matching Rate	I _v -m			2.0:1		I _F =20mA	

The DISPLAYS should be kept at 30°C or less and 60%RH or less. The DISPLAYS should be used within one year.

TOM-788BMA-B

Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-788BMA-B	AlGaInP	Ultra-Amber	Black	White

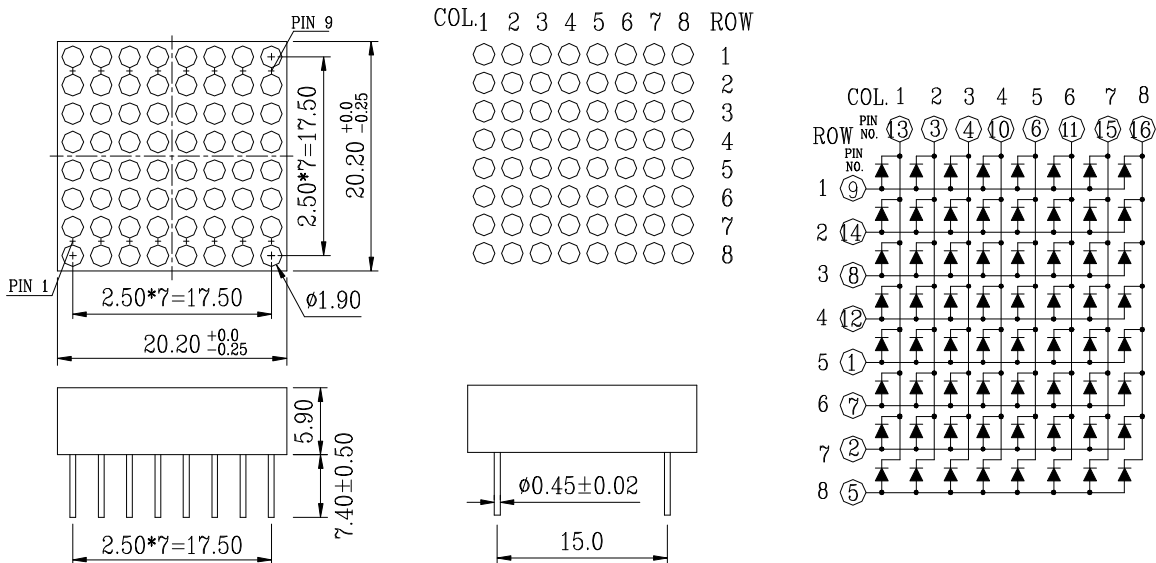
Features

- (8x8) \varnothing 1.90mm dot matrix
- Row common anode
- I.C. compatible
- Low power requirement
- RoHS compliant

Applications

- Audio equipment
- Instrument panels
- Indoor display

Package Dimensions & Internal Circuit Diagram



Notes:

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Absolute Maximum Rating @ Ta=25°C

Parameter	Maximum Rating	Unit
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	80	mA
Power Dissipation Per Dot	75	mW
Continuous Forward Current	20	mA
Recommend Operating Current	12	mA
Reverse Voltage	5	V
Operating Temperature Range	-25°C to +85°C	
Storage Temperature Range	-30°C to +85°C	
Lead-Free Solder Temperature(1/16 Inch Below Seating Plane)	260°C for 3 Sec	

Electrical / Optical Characteristic @ Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition	Grade
Luminous Intensity	I _v		21937		ucd	I _F =10mA	
Dominant Wavelength	λ _d		605		nm	I _F =20mA	
Spectral Line Half-Width	Δλ		18		nm	I _F =20mA	
Forward Voltage	V _F	1.8	2.0	2.3	V	I _F =20mA	
Reverse Current	I _R			100	μA	V _R =5V	
Luminous Intensity Matching Rate	I _v -m			2.0:1		I _F =20mA	

TOM-788BME-B

Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-788BME-B	AlGaInP	Ultra-orange	Black	White

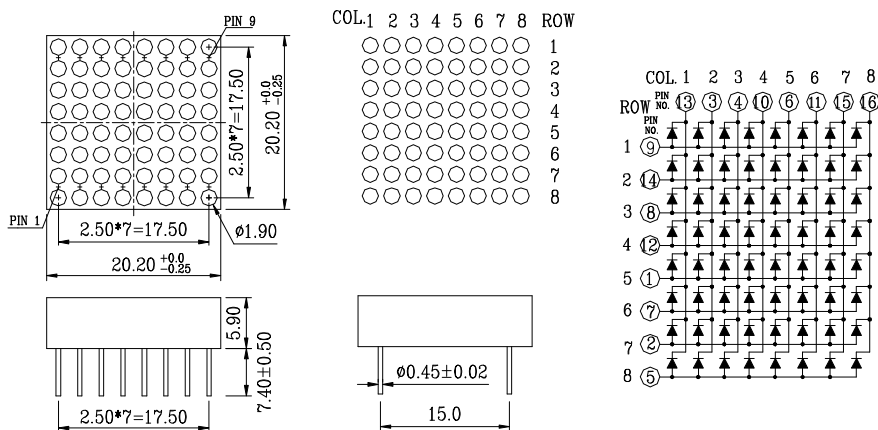
Features

- (8x8) \varnothing 1.90mm dot matrix
- Row common anode
- I.C. compatible
- Low power requirement
- RoHS compliant

Applications

- Audio equipment
- Instrument panels
- Indoor display

Package Dimensions & Internal Circuit Diagram



Notes:

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2. Specifications are subject to change without notice.

Absolute Maximum Rating @ Ta=25°C

Parameter	Maximum Rating	Unit
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	80	mA
Power Dissipation Per Dot	75	mW
Continuous Forward Current	20	mA
Recommend Operating Current	12	mA
Reverse Voltage	5	V
Operating Temperature Range	-25°C to +85°C	
Storage Temperature Range	-30°C to +85°C	
Lead-Free Solder Temperature(1/16 Inch Below Seating Plane)	260°C for 3 Sec	

Electrical / Optical Characteristic @ Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition	Grade
Luminous Intensity	I _v		32907		ucd	I _F =10mA	
Dominant Wavelength	λ _d		623		nm	I _F =20mA	
Spectral Line Half-Width	Δλ		15		nm	I _F =20mA	
Forward Voltage	V _F	1.8	2.0	2.3	V	I _F =20mA	
Reverse Current	I _R			100	μA	V _R =5V	
Luminous Intensity Matching Rate	I _v -m			2.0:1		I _F =20mA	

TOM-788BMEC-V

Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-788BMEC-V	AlGaInP	Ultra-Orange	Black	Water clear

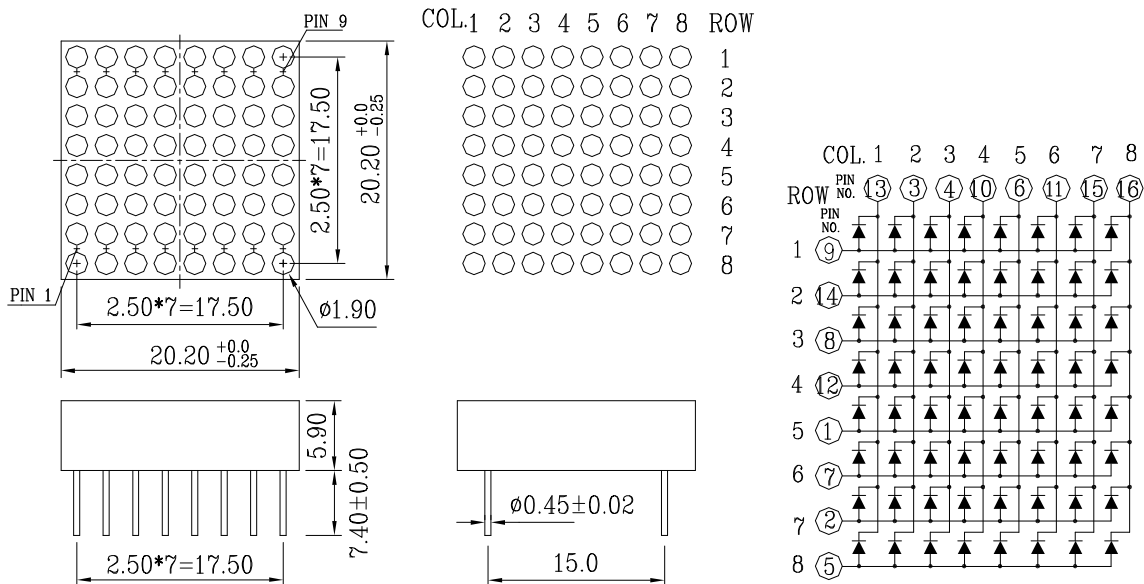
Features

- Dot Matrix display
- Common anode
- Low power requirement
- RoHS compliant

Applications

- Audio equipment
- Instrument panels
- Digital read out display

Package Dimensions & Internal Circuit Diagram



Notes:

1. All dimensions are in millimeters, tolerance: ±0.25 ; Angle: ±1° unless otherwise noted.
2. Specifications are subject to change without notice.

Absolute Maximum Rating @ Ta=25°C

Parameter	Maximum Rating	Unit
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	65	mA
Power Dissipation	55	mW
Continuous Forward Current	16	mA
Recommend Operating Current	10	mA
Reverse Voltage	5	V
Operating Temperature Range	-25°C to +85°C	
Storage Temperature Range	-30°C to +85°C	
Lead-Free Solder Temperature(1/16 Inch Below Seating Plane)	260°C for 3 Sec	

Electrical / Optical Characteristic @ Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition	Grade
Luminous Intensity(per segment)	I _v		74045		ucd	I _F =10mA	
Dominant Wavelength	λ _d		623		nm	I _F =20mA	
Spectral Line Half-Width	Δλ		17		nm	I _F =20mA	
Forward Voltage	V _F	1.8	2.0	2.3	V	I _F =20mA	
Reverse Current	I _R			100	μA	V _R =5V	
Luminous Intensity Matching Rate	I _v -m			2.0:1		I _F =20mA	

The DISPLAYS should be kept at 30°C or less and 60%RH or less. The DISPLAYS should be used within one year.

TOM-788BMG-B

Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-788BMG-B	AlGaInP	Ultra-green	Black	White

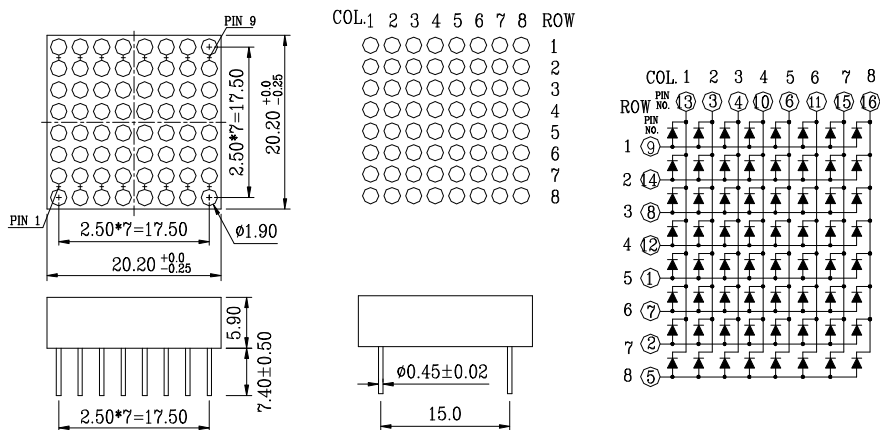
Features

- (8x8) \varnothing 1.90mm dot matrix
- Row common anode
- I.C. compatible
- Low power requirement
- RoHS compliant

Applications

- Audio equipment
- Instrument panels
- Indoor display

Package Dimensions & Internal Circuit Diagram



Notes:

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Absolute Maximum Rating @ Ta=25°C

Parameter	Maximum Rating	Unit
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	80	mA
Power Dissipation Per Dot	75	mW
Continuous Forward Current	20	mA
Recommend Operating Current	12	mA
Reverse Voltage	5	V
Operating Temperature Range	-25°C to +85°C	
Storage Temperature Range	-30°C to +85°C	
Lead-Free Solder Temperature(1/16 Inch Below Seating Plane)	260°C for 3 Sec	

Electrical / Optical Characteristic @ Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition	Grade
Luminous Intensity	I _v		15524		ucd	I _F =10mA	
Dominant Wavelength	λ _d		570		nm	I _F =20mA	
Spectral Line Half-Width	Δλ		15		nm	I _F =20mA	
Forward Voltage	V _F	1.8	2.0	2.3	V	I _F =20mA	
Reverse Current	I _R			100	μA	V _R =5V	
Luminous Intensity Matching Rate	I _v -m			2.0:1		I _F =20mA	

The DISPLAY's should be kept at 30°C or less and 60%RH or less. The DISPLAY's should be used with in a year

TOM-788BMR-B

Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-788BMR-B	AlGaInP	Ultra-red	Black	White

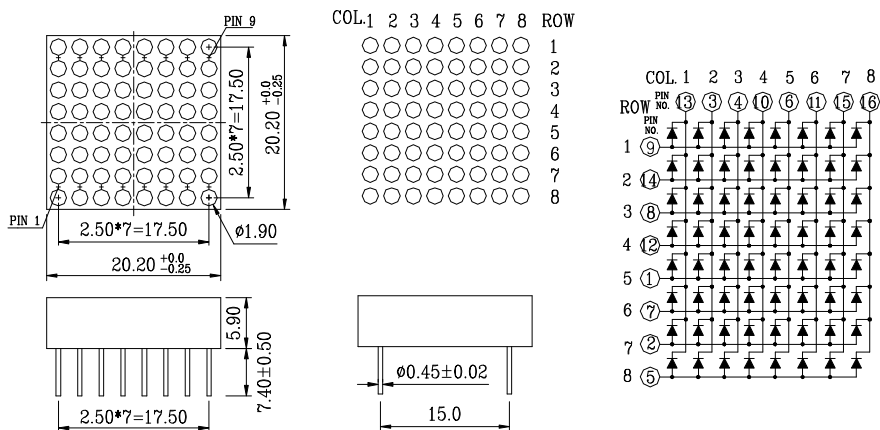
Features

- (8x8) \varnothing 1.90mm dot matrix
- Row common anode
- I.C. compatible
- Low power requirement
- RoHS compliant

Applications

- Audio equipment
- Instrument panels
- Indoor display

Package Dimensions & Internal Circuit Diagram



Notes:

1. All dimensions are in millimeters, tolerance: ± 0.25 ; Angle: $\pm 0.1^\circ$ unless otherwise noted.
2. Specifications are subject to change without notice.

Absolute Maximum Rating @ Ta=25°C

Parameter	Maximum Rating	Unit
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	80	mA
Power Dissipation Per Dot	75	mW
Continuous Forward Current	20	mA
Recommend Operating Current	12	mA
Reverse Voltage	5	V
Operating Temperature Range	-25°C to +85°C	
Storage Temperature Range	-30°C to +85°C	
Lead-Free Solder Temperature(1/16 Inch Below Seating Plane)	260°C for 3 Sec	

Electrical / Optical Characteristic @ Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition	Grade
Luminous Intensity	I _v		15524		ucd	I _F =10mA	
Dominant Wavelength	λ _d		630		nm	I _F =20mA	
Spectral Line Half-Width	Δλ		15		nm	I _F =20mA	
Forward Voltage	V _F	1.8	2.0	2.3	V	I _F =20mA	
Reverse Current	I _R			100	μA	V _R =5V	
Luminous Intensity Matching Rate	I _v -m			2.0:1		I _F =20mA	

TOM-788BMRL-B

Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-788BMRL-B	AlGaInP	Ultra-red	Black	White

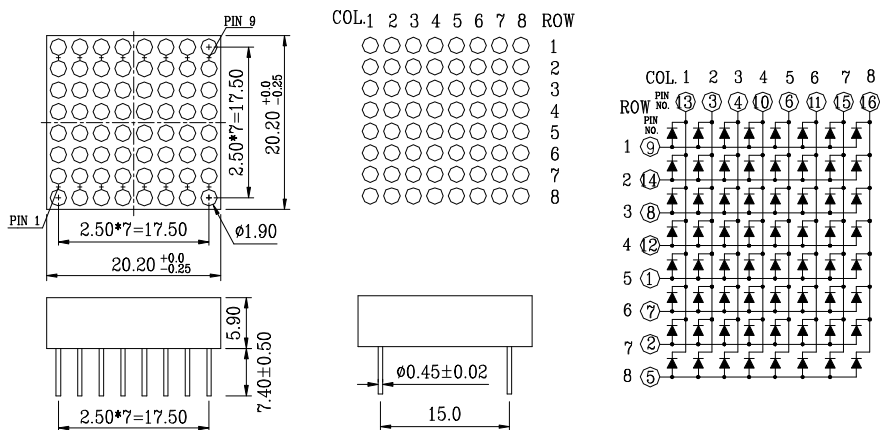
Features

- (8x8) \varnothing 1.90mm dot matrix
- Row common anode
- I.C. compatible
- Low power requirement
- RoHS compliant

Applications

- Audio equipment
- Instrument panels
- Indoor display

Package Dimensions & Internal Circuit Diagram



Notes:

1. All dimensions are in millimeters, tolerance: ± 0.25 ; Angle: $\pm 0.1^\circ$ unless otherwise noted.
2. Specifications are subject to change without notice.

Absolute Maximum Rating @ Ta=25°C

Parameter	Maximum Rating	Unit
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	80	mA
Power Dissipation Per Dot	75	mW
Continuous Forward Current	20	mA
Recommend Operating Current	12	mA
Reverse Voltage	5	V
Operating Temperature Range	-25°C to +85°C	
Storage Temperature Range	-30°C to +85°C	
Lead-Free Solder Temperature(1/16 Inch Below Seating Plane)	260°C for 3 Sec	

Electrical / Optical Characteristic @ Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition	Grade
Luminous Intensity	I _v		15524		ucd	I _F =10mA	
Dominant Wavelength	λ _d		640		nm	I _F =20mA	
Spectral Line Half-Width	Δλ		15		nm	I _F =20mA	
Forward Voltage	V _F	1.8	2.0	2.3	V	I _F =20mA	
Reverse Current	I _R			100	μA	V _R =5V	
Luminous Intensity Matching Rate	I _v -m			2.0:1		I _F =20mA	

TOM-788HMB-B

Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-788HMB-B	InGaN	Hi-blue	Black	White

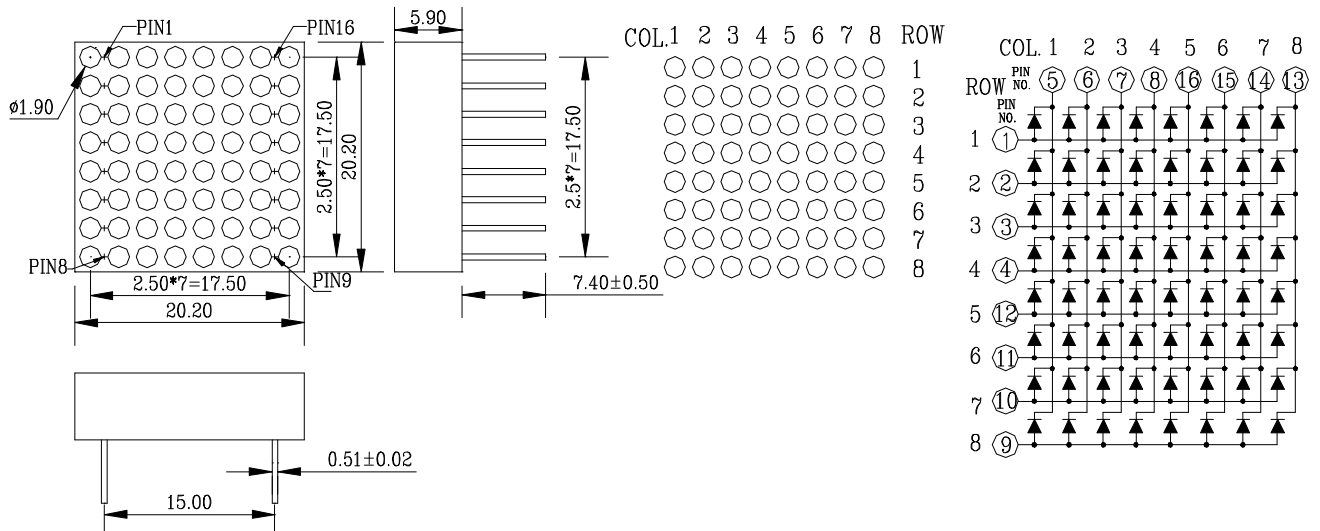
Features

- (8x8) \varnothing 1.90mm dot matrix
- Row common anode
- I.C. compatible
- Low power requirement
- RoHS compliant

Applications

- Audio equipment
- Instrument panels
- Indoor display

Package Dimensions & Internal Circuit Diagram



Notes:

1. All dimensions are in millimeters, tolerance: ± 0.25 ; Angle: $\pm 0.1^\circ$ unless otherwise noted.
2. Specifications are subject to change without notice.

Absolute Maximum Rating @ Ta=25°C

Parameter	Maximum Rating	Unit
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width) Per Dot	80	mA
Power Dissipation Per Dot	105	mW
Continuous Forward Current Per Dot	20	mA
Recommend Operating Current Per Dot	12	mA
Reverse Voltage Per Dot	5	V
Operating Temperature Range	-25°C to +85°C	
Storage Temperature Range	-30°C to +85°C	
Lead-Free Solder Temperature(1/16 Inch Below Seating Plane)	260°C for 3 Sec	

Electrical / Optical Characteristic @ Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition	Grade
Average Luminous Intensity Per Dot	I _v		49362		ucd	I _F =10mA	
Dominant Wavelength	λ _d		465		nm	I _F =20mA	
Spectral Line Half-Width	Δλ		26		nm	I _F =20mA	
Forward Voltage Per Dot	V _F		3.2	3.5	V	I _F =20mA	
Reverse Current Per Dot	I _R			100	μA	V _R =5V	
Luminous Intensity Matching Rate	I _v -m			2.0:1		I _F =20mA	

The DISPLAYS should be kept at 30°C or less and 60%RH or less. The DISPLAYS should be used within one year.

TOM-1088AMR-B

Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-1088AMR-B	AlGaInP	Ultra-red	Black	White

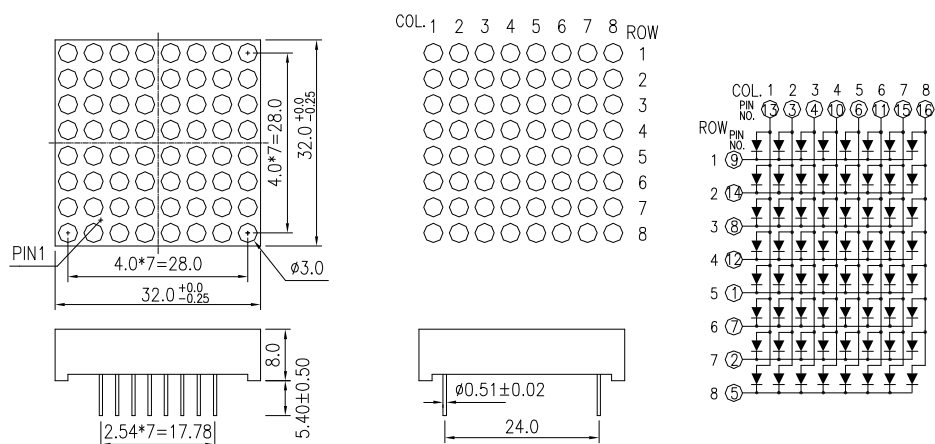
Features

- (8x8) \varnothing 3.00mm dot matrix
- Row common cathode
- I.C. compatible
- Low power requirement
- RoHS compliant

Applications

- Audio equipment
- Instrument panels
- Indoor display

Package Dimensions & Internal Circuit Diagram



Notes:

1. All dimensions are in millimeters, tolerance: ± 0.25 ; Angle: $\pm 0.1^\circ$ unless otherwise noted.
2. Specifications are subject to change without notice.

Absolute Maximum Rating @ Ta=25°C

Parameter	Maximum Rating	Unit
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	80	mA
Power Dissipation Per Dot	75	mW
Continuous Forward Current	20	mA
Recommend Operating Current	12	mA
Reverse Voltage	5	V
Operating Temperature Range	-25°C to +85°C	
Storage Temperature Range	-30°C to +85°C	
Lead-Free Solder Temperature (1/16 Inch Below Seating Plane)	260°C for 3 Sec	

Electrical / Optical Characteristic @ Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition	Grade
Luminous Intensity	I _v		21937		ucd	I _F =10mA	
Dominant Wavelength	λ _d		630		nm	I _F =20mA	
Spectral Line Half-Width	Δλ		15		nm	I _F =20mA	
Forward Voltage	V _F	1.8	2.0	2.3	V	I _F =20mA	
Reverse Current	I _R			100	μA	V _R =5V	
Luminous Intensity Matching Rate	I _v -m			2.0:1		I _F =20mA	

TOM-1088AMRL-B

Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-1088AMRL-B	AlGaInP	Ultra-red	Black	White

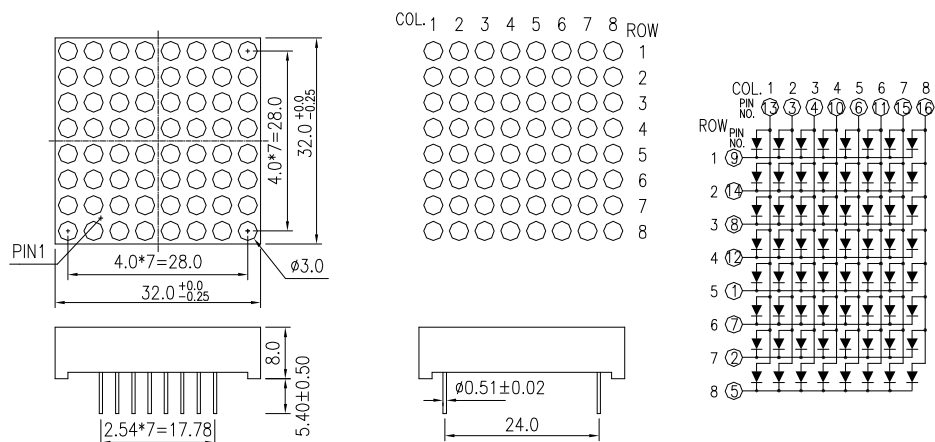
Features

- (8x8) \varnothing 3.00mm dot matrix
- Row common cathode
- I.C. compatible
- Low power requirement
- RoHS compliant

Applications

- Audio equipment
- Instrument panels
- Indoor display

Package Dimensions & Internal Circuit Diagram



Notes:

1. All dimensions are in millimeters, tolerance: ± 0.25 ; Angle: $\pm 0.1^\circ$ unless otherwise noted.
2. Specifications are subject to change without notice.

Absolute Maximum Rating @ Ta=25°C

Parameter	Maximum Rating	Unit
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	80	mA
Power Dissipation Per Dot	75	mW
Continuous Forward Current	20	mA
Recommend Operating Current	12	mA
Reverse Voltage	5	V
Operating Temperature Range	-25°C to +85°C	
Storage Temperature Range	-30°C to +85°C	
Lead-Free Solder Temperature (1/16 Inch Below Seating Plane)	260°C for 3 Sec	

Electrical / Optical Characteristic @ Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition	Grade
Luminous Intensity	I _v		21937		ucd	I _F =10mA	
Dominant Wavelength	λ _d		640		nm	I _F =20mA	
Spectral Line Half-Width	Δλ		15		nm	I _F =20mA	
Forward Voltage	V _F	1.8	2.0	2.3	V	I _F =20mA	
Reverse Current	I _R			100	μA	V _R =5V	
Luminous Intensity Matching Rate	I _v -m			2.0:1		I _F =20mA	

TOM-1088AMR-N

Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-1088AMR-N	AlGaInP	Ultra-red	Gray	White

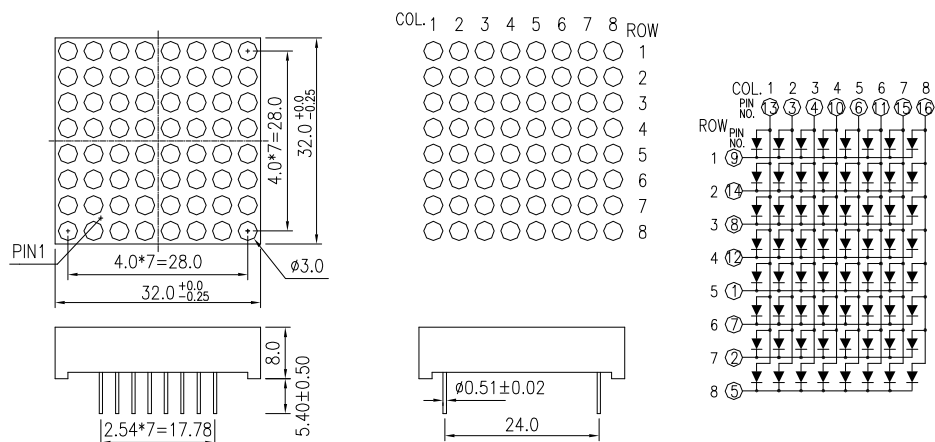
Features

- (8x8) \varnothing 3.00mm dot matrix
- Row common cathode
- I.C. compatible
- Low power requirement
- RoHS compliant

Applications

- Audio equipment
- Instrument panels
- Indoor display

Package Dimensions & Internal Circuit Diagram



Notes:

1. All dimensions are in millimeters, tolerance: ± 0.25 ; Angle: $\pm 0.1^\circ$ unless otherwise noted.
2. Specifications are subject to change without notice.

Absolute Maximum Rating @ Ta=25°C

Parameter	Maximum Rating	Unit
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	80	mA
Power Dissipation Per Dot	75	mW
Continuous Forward Current	20	mA
Recommend Operating Current	12	mA
Reverse Voltage	5	V
Operating Temperature Range	-25°C to +85°C	
Storage Temperature Range	-30°C to +85°C	
Lead-Free Solder Temperature (1/16 Inch Below Seating Plane)	260°C for 3 Sec	

Electrical / Optical Characteristic @ Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition	Grade
Luminous Intensity	I _v		21937		ucd	I _F =10mA	
Dominant Wavelength	λ _d		630		nm	I _F =20mA	
Spectral Line Half-Width	Δλ		15		nm	I _F =20mA	
Forward Voltage	V _F	1.8	2.0	2.3	V	I _F =20mA	
Reverse Current	I _R			100	μA	V _R =5V	
Luminous Intensity Matching Rate	I _v -m			2.0:1		I _F =20mA	

TOM-1088AMY-B

Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-1088AMY-B	AlGaInP	Ultra yellow	Black	White

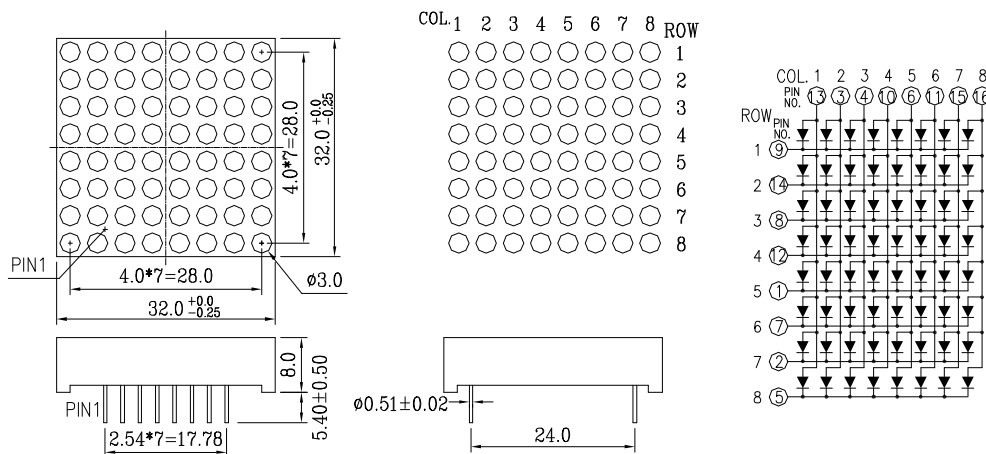
Features

- (8x8) \varnothing 3.00mm dot matrix
- Row common cathode
- I.C. compatible
- Low power requirement
- RoHS compliant

Applications

- Audio equipment
- Instrument panels
- Indoor display

Package Dimensions & Internal Circuit Diagram



Notes:

1. All dimensions are in millimeters, tolerance: ± 0.25 ; Angle: $\pm 0.1^\circ$ unless otherwise noted.
2. Specifications are subject to change without notice.

Absolute Maximum Rating @ Ta=25°C

Parameter	Maximum Rating	Unit
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	80	mA
Power Dissipation Per Dot	75	mW
Continuous Forward Current	20	mA
Recommend Operating Current	12	mA
Reverse Voltage	5	V
Operating Temperature Range	-25°C to +85°C	
Storage Temperature Range	-30°C to +85°C	
Lead-Free Solder Temperature (1/16 Inch Below Seating Plane)	260°C for 3 Sec	

Electrical / Optical Characteristic @ Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition	Grade
Luminous Intensity	I _v		32907		ucd	I _F =10mA	
Dominant Wavelength	λ _d		590		nm	I _F =20mA	
Spectral Line Half-Width	Δλ		15		nm	I _F =20mA	
Forward Voltage	V _F	1.8	2.0	2.3	V	I _F =20mA	
Reverse Current	I _R			100	μA	V _R =5V	
Luminous Intensity Matching Rate	I _v -m			2.0:1		I _F =20mA	

TOM-1088BMB-B

Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-1088BMB-B	InGaN	Hi-blue	Black	White

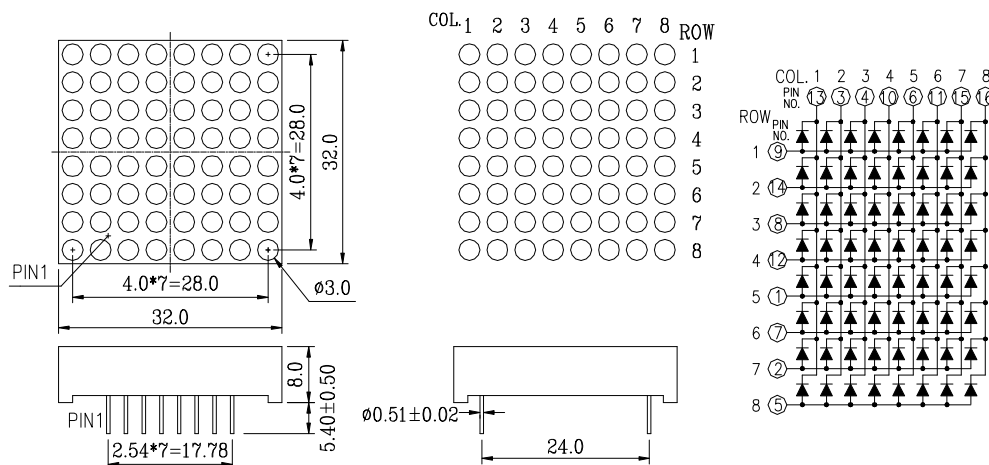
Features

- (8x8) \varnothing 3.00mm dot matrix
- Row common anode
- I.C. compatible
- Low power requirement
- RoHS compliant

Applications

- Audio equipment
- Instrument panels
- Indoor display

Package Dimensions & Internal Circuit Diagram



Notes:

1. All dimensions are in millimeters, tolerance: ± 0.25 ; Angle: $\pm 0.1^\circ$ unless otherwise noted.
2. Specifications are subject to change without notice.

Absolute Maximum Rating @ Ta=25°C

Parameter	Maximum Rating	Unit
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	80	mA
Power Dissipation Per Dot	105	mW
Continuous Forward Current	20	mA
Recommend Operating Current	12	mA
Reverse Voltage	5	V
Operating Temperature Range	-25°C to +85°C	
Storage Temperature Range	-30°C to +85°C	
Lead-Free Solder Temperature (1/16 Inch Below Seating Plane)	260°C for 3 Sec	

Electrical / Optical Characteristic @ Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition	Grade
Luminous Intensity	I _v		74045		ucd	I _F =10mA	
Dominant Wavelength	λ _d		465		nm	I _F =20mA	
Spectral Line Half-Width	Δλ		26		nm	I _F =20mA	
Forward Voltage	V _F		3.2	3.5	V	I _F =20mA	
Reverse Current	I _R			100	μA	V _R =5V	
Luminous Intensity Matching Rate	I _v -m			2.0:1		I _F =20mA	

TOM-1088BMB-N

Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-1088BMB-N	InGaN	Hi-blue	Black	Gray

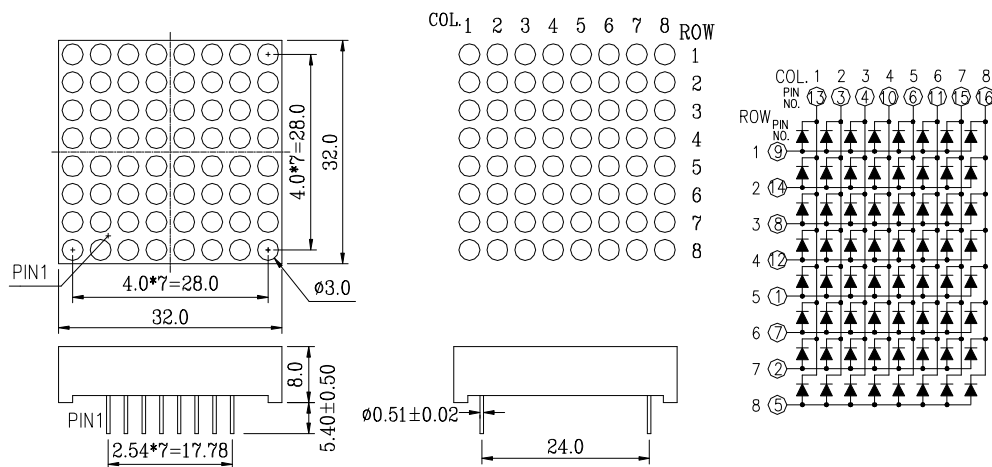
Features

- (8x8) \varnothing 3.00mm dot matrix
- Row common anode
- I.C. compatible
- Low power requirement
- RoHS compliant

Applications

- Audio equipment
- Instrument panels
- Indoor display

Package Dimensions & Internal Circuit Diagram



Notes:

1. All dimensions are in millimeters, tolerance: ± 0.25 ; Angle: 3° unless otherwise noted.
2. Specifications are subject to change without notice.

Absolute Maximum Rating @ Ta=25°C

Parameter	Maximum Rating	Unit
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	80	mA
Power Dissipation Per Dot	105	mW
Continuous Forward Current	20	mA
Recommend Operating Current	12	mA
Reverse Voltage	5	V
Operating Temperature Range	-25°C to +85°C	
Storage Temperature Range	-30°C to +85°C	
Lead-Free Solder Temperature (1/16 Inch Below Seating Plane)	260°C for 3 Sec	

Electrical / Optical Characteristic @ Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition	Grade
Luminous Intensity	I _v		74045		ucd	I _F =10mA	
Dominant Wavelength	λ _d		465		nm	I _F =20mA	
Spectral Line Half-Width	Δλ		26		nm	I _F =20mA	
Forward Voltage	V _F		3.2	3.5	V	I _F =20mA	
Reverse Current	I _R			100	μA	V _R =5V	
Luminous Intensity Matching Rate	I _v -m			2.0:1		I _F =20mA	

TOM-1088BMG-B

Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-1088BMG-B	AlGaInP	Ultra-green	Black	White

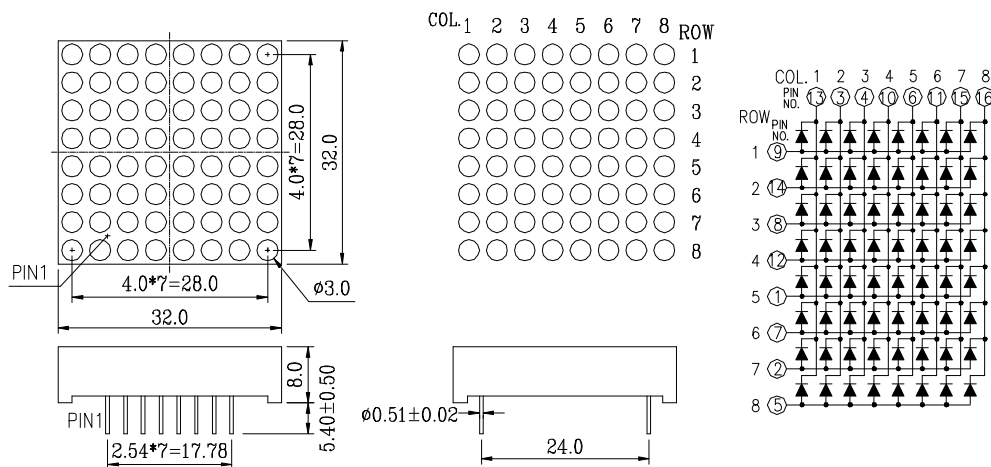
Features

- (8x8) \varnothing 3.00mm dot matrix
- Row common anode
- I.C. compatible
- Low power requirement
- RoHS compliant

Applications

- Audio equipment
- Instrument panels
- Indoor display

Package Dimensions & Internal Circuit Diagram



Notes:

1. All dimensions are in millimeters, tolerance: ± 0.25 ; Angle: $\pm 0.1^\circ$ unless otherwise noted.
2. Specifications are subject to change without notice.

Absolute Maximum Rating @ Ta=25°C

Parameter	Maximum Rating	Unit
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	80	mA
Power Dissipation Per Dot	75	mW
Continuous Forward Current	20	mA
Recommend Operating Current	12	mA
Reverse Voltage	5	V
Operating Temperature Range	-25°C to +85°C	
Storage Temperature Range	-30°C to +85°C	
Lead-Free Solder Temperature (1/16 Inch Below Seating Plane)	260°C for 3 Sec	

Electrical / Optical Characteristic @ Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition	Grade
Luminous Intensity	I _v		15524		ucd	I _F =10mA	
Dominant Wavelength	λ _d		572		nm	I _F =20mA	
Spectral Line Half-Width	△λ		15		nm	I _F =20mA	
Forward Voltage	V _F	1.8	2.0	2.3	V	I _F =20mA	
Reverse Current	I _R			100	μA	V _R =5V	
Luminous Intensity Matching Rate	I _v -m			2.0:1		I _F =20mA	

TOM-1088BMG-N

Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-1088BMG-N	AlGaInP	Ultra-green	Gray	White

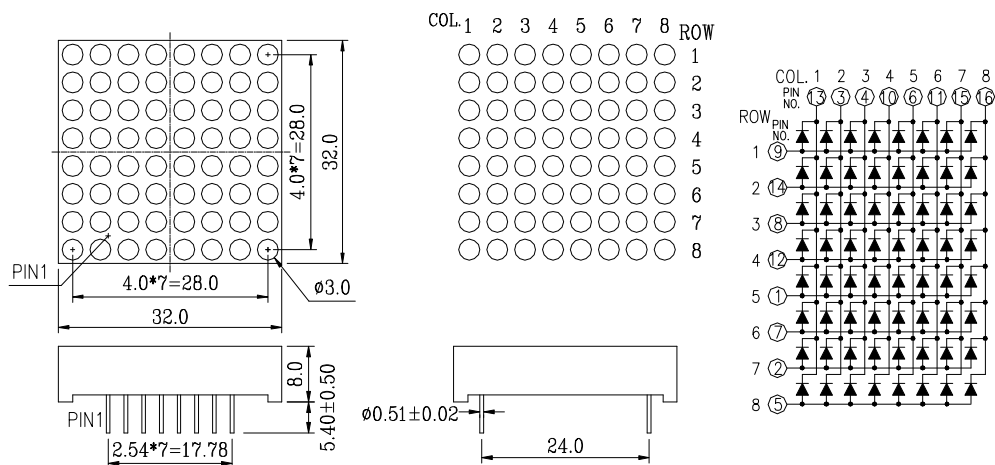
Features

- (8x8) \varnothing 3.00mm dot matrix
- Row common anode
- I.C. compatible
- Low power requirement
- RoHS compliant

Applications

- Audio equipment
- Instrument panels
- Indoor display

Package Dimensions & Internal Circuit Diagram



Notes:

1. All dimensions are in millimeters, tolerance: ± 0.25 ; Angle: $\pm 3^\circ$ unless otherwise noted.
2. Specifications are subject to change without notice.

Absolute Maximum Rating @ Ta=25°C

Parameter	Maximum Rating	Unit
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	80	mA
Power Dissipation Per Dot	75	mW
Continuous Forward Current	20	mA
Recommend Operating Current	12	mA
Reverse Voltage	5	V
Operating Temperature Range	-25°C to +85°C	
Storage Temperature Range	-30°C to +85°C	
Lead-Free Solder Temperature (1/16 Inch Below Seating Plane)	260°C for 3 Sec	

Electrical / Optical Characteristic @ Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition	Grade
Luminous Intensity	I _v		15524		ucd	I _F =10mA	
Dominant Wavelength	λ _d		572		nm	I _F =20mA	
Spectral Line Half-Width	Δλ		15		nm	I _F =20mA	
Forward Voltage	V _F	1.8	2.0	2.3	V	I _F =20mA	
Reverse Current	I _R			100	μA	V _R =5V	
Luminous Intensity Matching Rate	I _v -m			2.0:1		I _F =20mA	

TOM-1088BMR-B

Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-1088BMR-B	AlGaInP	Ultra-red	Black	White

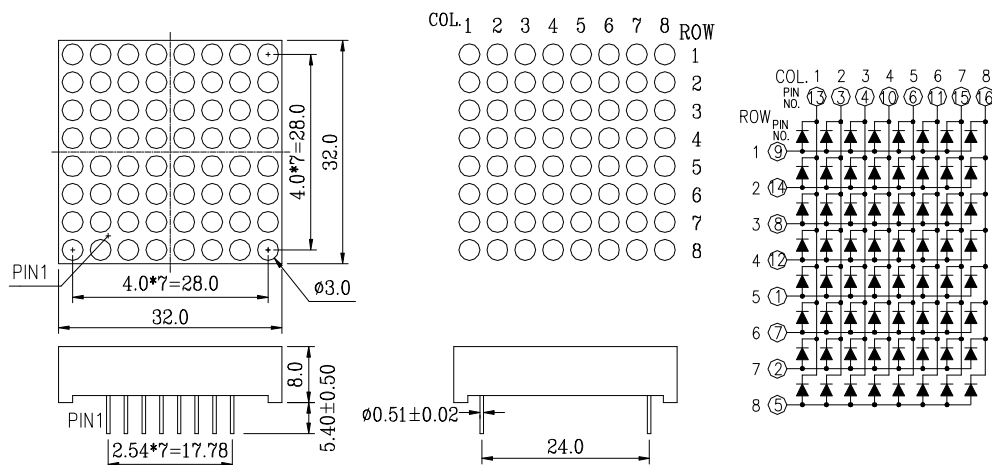
Features

- (8x8) \varnothing 3.00mm dot matrix
- Row common anode
- I.C. compatible
- Low power requirement
- RoHS compliant

Applications

- Audio equipment
- Instrument panels
- Indoor display

Package Dimensions & Internal Circuit Diagram



Notes:

1. All dimensions are in millimeters, tolerance: \pm 0.25 ; Angle: \pm 0.1° unless otherwise noted.
2. Specifications are subject to change without notice.

Absolute Maximum Rating @ Ta=25°C

Parameter	Maximum Rating	Unit
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	80	mA
Power Dissipation Per Dot	75	mW
Continuous Forward Current	20	mA
Recommend Operating Current	12	mA
Reverse Voltage	5	V
Operating Temperature Range	-25°C to +85°C	
Storage Temperature Range	-30°C to +85°C	
Lead-Free Solder Temperature (1/16 Inch Below Seating Plane)	260°C for 3 Sec	

Electrical / Optical Characteristic @ Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition	Grade
Luminous Intensity	I _v		21937		ucd	I _F =10mA	
Dominant Wavelength	λ _d		630		nm	I _F =20mA	
Spectral Line Half-Width	Δλ		15		nm	I _F =20mA	
Forward Voltage	V _F	1.8	2.0	2.3	V	I _F =20mA	
Reverse Current	I _R			100	μA	V _R =5V	
Luminous Intensity Matching Rate	I _v -m			2.0:1		I _F =20mA	

TOM-1088BMY-B

Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-1088BMY-B	AlGaInP	Ultra-yellow	Black	White

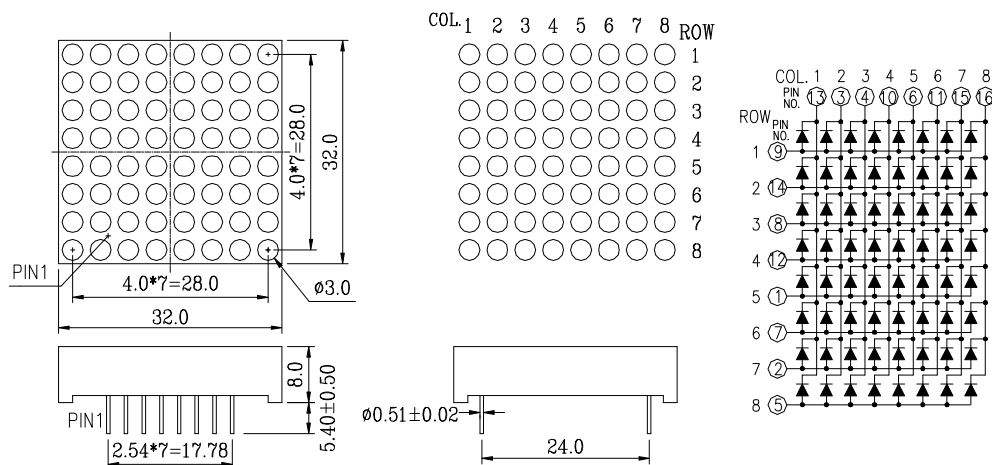
Features

- (8x8) \varnothing 3.00mm dot matrix
- Row common anode
- I.C. compatible
- Low power requirement
- RoHS compliant

Applications

- Audio equipment
- Instrument panels
- Indoor display

Package Dimensions & Internal Circuit Diagram



Notes:

1. All dimensions are in millimeters, tolerance: \pm 0.25 ; Angle: \pm 0.1° unless otherwise noted.
2. Specifications are subject to change without notice.

Absolute Maximum Rating @ Ta=25°C

Parameter	Maximum Rating	Unit
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	80	mA
Power Dissipation Per Dot	75	mW
Continuous Forward Current	20	mA
Recommend Operating Current	12	mA
Reverse Voltage	5	V
Operating Temperature Range	-25°C to +85°C	
Storage Temperature Range	-30°C to +85°C	
Lead-Free Solder Temperature (1/16 Inch Below Seating Plane)	260°C for 3 Sec	

Electrical / Optical Characteristic @ Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition	Grade
Luminous Intensity	I _v		32907		ucd	I _F =10mA	
Dominant Wavelength	λ _d		590		nm	I _F =20mA	
Spectral Line Half-Width	Δλ		15		nm	I _F =20mA	
Forward Voltage	V _F	1.8	2.0	2.3	V	I _F =20mA	
Reverse Current	I _R			100	μA	V _R =5V	
Luminous Intensity Matching Rate	I _v -m			2.0:1		I _F =20mA	

TOM-1088CMA-1N

Dot Matrix Display LED



Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-1088CMA-1N	AlGaInP	Ultra-amber	Gray	White

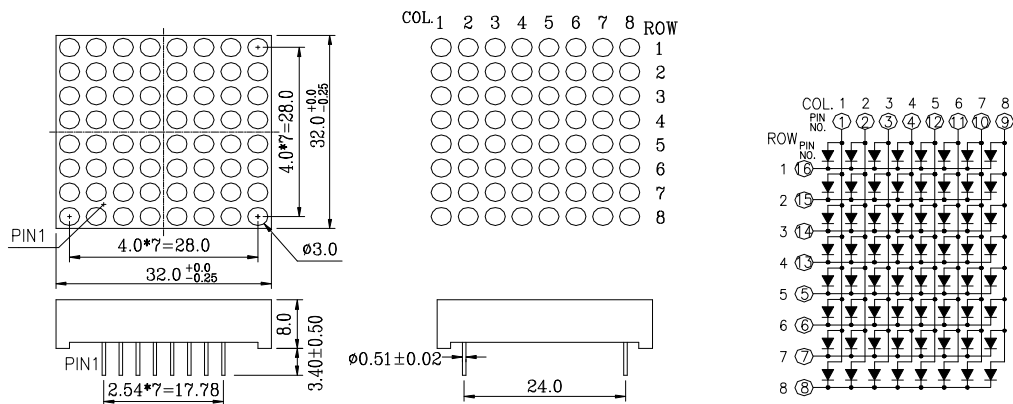
Features

- (8x8) \varnothing 3.0mm dot matrix
- Row common cathode
- I.C. compatible
- Low power requirement
- RoHS compliant

Applications

- Audio equipment
- Instrument panels
- Indoor display

Package Dimensions & Internal Circuit Diagram



Notes:

1. All dimensions are in millimeters, tolerance: ± 0.25 ; Angle: $\pm 0.1^\circ$ unless otherwise noted.
2. Specifications are subject to change without notice.

Absolute Maximum Rating @ Ta=25°C

Parameter	Maximum Rating	Unit
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	80	mA
Power Dissipation	75	mW
Continuous Forward Current	20	mA
Recommend Operating Current	12	mA
Reverse Voltage	5	V
Operating Temperature Range	-25°C to +85°C	
Storage Temperature Range	-30°C to +85°C	
Lead-Free Solder Temperature(1/16 Inch Below Seating Plane)	260°C for 3 Sec	

Electrical / Optical Characteristic @ Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition	Grade
Luminous Intensity	I _v		74045		ucd	I _F =10mA	
Dominant Wavelength	λ _d		605		nm	I _F =20mA	
Spectral Line Half-Width	Δλ		18		nm	I _F =20mA	
Forward Voltage	V _F	1.8	2.0	2.3	V	I _F =20mA	
Reverse Current	I _R			100	μA	V _R =5V	
Luminous Intensity Matching Rate	I _v -m			2.0:1		I _F =20mA	

TOM-1088CMRL-N3

Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-1088CMRL-N3	AlGaInP	Ultra-red	Gray	White

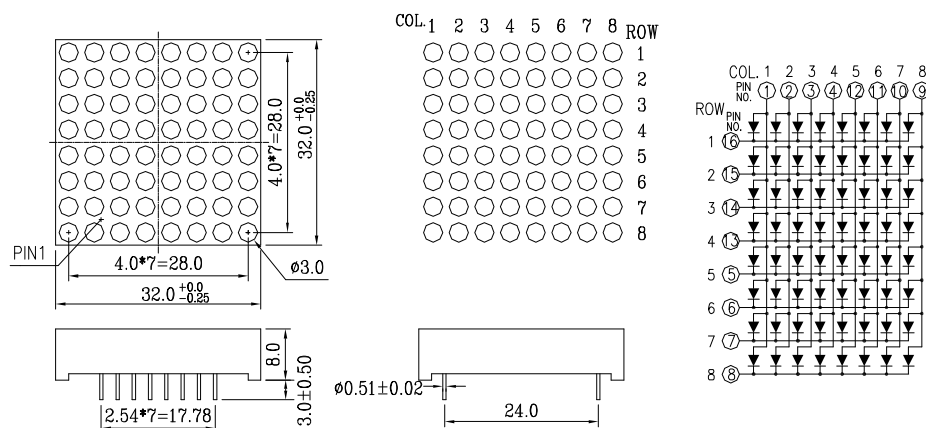
Features

- (8x8) \varnothing 3.00mm dot matrix
- Row common cathode
- I.C. compatible
- Low power requirement
- RoHS compliant

Applications

- Audio equipment
- Instrument panels
- Indoor display

Package Dimensions & Internal Circuit Diagram



Notes:

1. All dimensions are in millimeters, tolerance: ± 0.25 ; Angle: $\pm 0.1^\circ$ unless otherwise noted.
2. Specifications are subject to change without notice.

Absolute Maximum Rating @ Ta=25°C

Parameter	Maximum Rating	Unit
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	80	mA
Power Dissipation Per Dot	75	mW
Continuous Forward Current	20	mA
Recommend Operating Current	12	mA
Reverse Voltage	5	V
Operating Temperature Range	-25°C to +85°C	
Storage Temperature Range	-30°C to +85°C	
Lead-Free Solder Temperature (1/16 Inch Below Seating Plane)	260°C for 3 Sec	

Electrical / Optical Characteristic @ Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition	Grade
Luminous Intensity	I _v		21937		ucd	I _F =10mA	
Dominant Wavelength	λ _d		640		nm	I _F =20mA	
Spectral Line Half-Width	Δλ		15		nm	I _F =20mA	
Forward Voltage	V _F	1.8	2.0	2.3	V	I _F =20mA	
Reverse Current	I _R			100	μA	V _R =5V	
Luminous Intensity Matching Rate	I _v -m			2.0:1		I _F =20mA	

TOM-1088CsW-1B

Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-1088CsW-1B	InGaN	White	Black	White



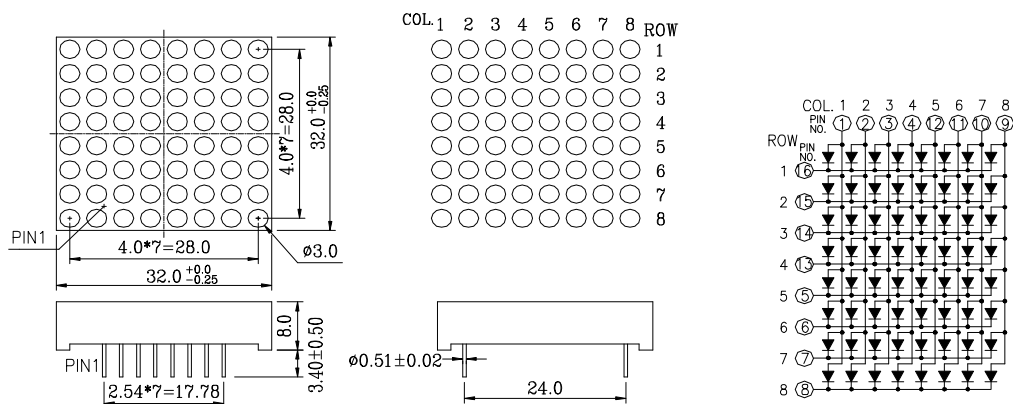
Features

- (8x8) \varnothing 3.0mm dot matrix
- Row common cathode
- I.C. compatible
- Low power requirement
- RoHS compliant

Applications

- Audio equipment
- Instrument panels
- Indoor display

Package Dimensions & Internal Circuit Diagram



Notes:

1. All dimensions are in millimeters, tolerance: ± 0.25 ; Angle: $\pm 0.1^\circ$ unless otherwise noted.
2. Specifications are subject to change without notice.

Absolute Maximum Rating @ Ta=25°C

Parameter	Maximum Rating	Unit
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	80	mA
Power Dissipation	105	mW
Continuous Forward Current	20	mA
Recommend Operating Current	12	mA
Reverse Voltage	5	V
Operating Temperature Range	-25°C to +85°C	
Storage Temperature Range	-30°C to +85°C	
Lead-Free Solder Temperature(1/16 Inch Below Seating Plane)	260°C for 3 Sec	

Electrical / Optical Characteristic @ Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition	Grade
Chromaticity Coordinates	X		0.285		nm	I _F =5mA	
Chromaticity Coordinates	Y		0.295		nm	I _F =5mA	
Forward Voltage Per Segment	V _F	2.8	3.3		V	I _F =5mA	
Reverse Current Per Segment	I _R			50	uA	V _R =5V	

TOM-1588AMG-N

Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-1588AMG-N	AlGaInP	Ultra-green	Gray	White

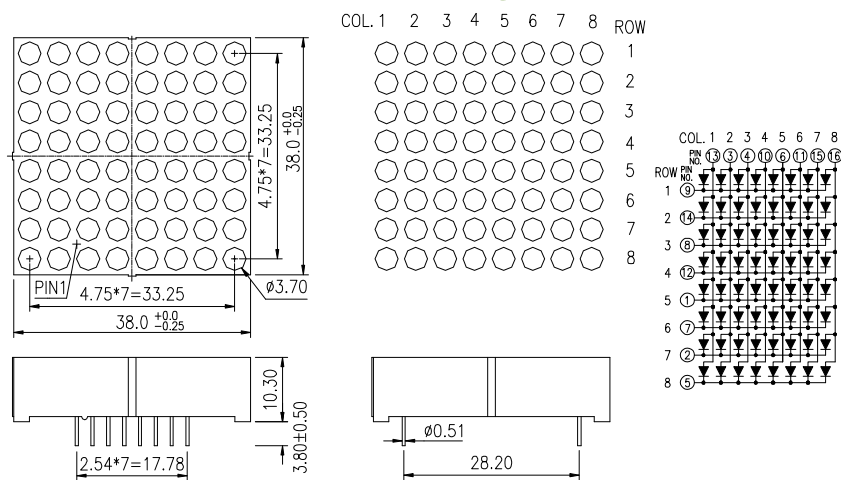
Features

- (8x8) \varnothing 3.70mm dot matrix
- Row common cathode
- I.C. compatible
- Low power requirement
- RoHS compliant

Applications

- Audio equipment
- Instrument panels
- Indoor display

Package Dimensions & Internal Circuit Diagram



Notes:

1. All dimensions are in millimeters, tolerance: ± 0.25 ; Angle: $\pm 0.1^\circ$ unless otherwise noted.
2. Specifications are subject to change without notice.

Absolute Maximum Rating @ Ta=25°C

Parameter	Maximum Rating	Unit
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	80	mA
Power Dissipation Per Dot	75	mW
Continuous Forward Current	20	mA
Recommend Operating Current	12	mA
Reverse Voltage	5	V
Operating Temperature Range	-25°C to +85°C	
Storage Temperature Range	-30°C to +85°C	
Lead-Free Solder Temperature (1/16 Inch Below Seating Plane)	260°C for 3 Sec	

Electrical / Optical Characteristic @ Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition	Grade
Luminous Intensity	I _v		15524		ucd	I _F =10mA	
Dominant Wavelength	λ _d		572		nm	I _F =20mA	
Spectral Line Half-Width	Δλ		15		nm	I _F =20mA	
Forward Voltage	V _F	1.8	2.0	2.3	V	I _F =20mA	
Reverse Current	I _R			100	μA	V _R =5V	
Luminous Intensity Matching Rate	I _v -m			2.0:1		I _F =20mA	

TOM-1588AMR-N

Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-1588AMR-N	AlGaInP	Ultra-red	Gray	White

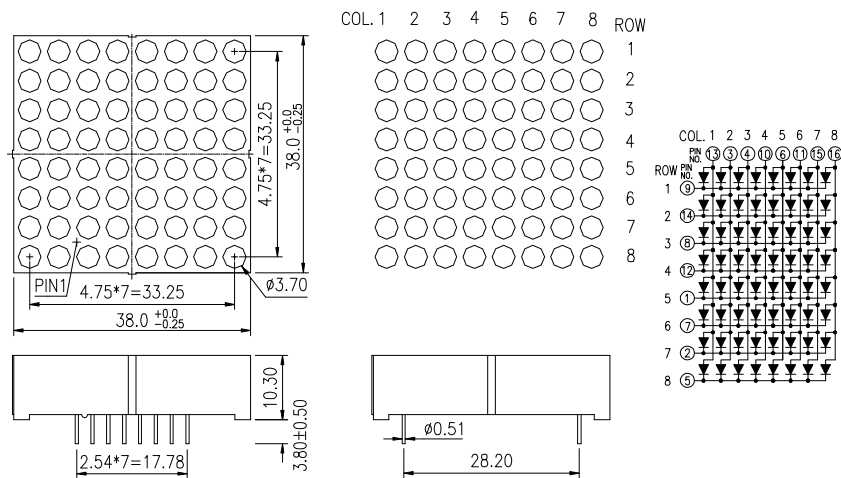
Features

- (8x8) \varnothing 3.70mm dot matrix
- Row common Cathode
- I.C. compatible
- Low power requirement
- RoHS compliant

Applications

- Audio equipment
- Instrument panels
- Indoor display

Package Dimensions & Internal Circuit Diagram



Notes:

1. All dimensions are in millimeters, tolerance: ± 0.25 ; Angle: $\pm 0.1^\circ$ unless otherwise noted.
2. Specifications are subject to change without notice.

Absolute Maximum Rating @ Ta=25°C

Parameter	Maximum Rating	Unit
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	80	mA
Power Dissipation Per Dot	75	mW
Continuous Forward Current	20	mA
Recommend Operating Current	12	mA
Reverse Voltage	5	V
Operating Temperature Range	-25°C to +85°C	
Storage Temperature Range	-30°C to +85°C	
Lead-Free Solder Temperature (1/16 Inch Below Seating Plane)	260°C for 3 Sec	

Electrical / Optical Characteristic @ Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition	Grade
Luminous Intensity	I _v		21937		ucd	I _F =10mA	
Dominant Wavelength	λ _d		630		nm	I _F =20mA	
Spectral Line Half-Width	Δλ		15		nm	I _F =20mA	
Forward Voltage	V _F	1.8	2.0	2.3	V	I _F =20mA	
Reverse Current	I _R			100	μA	V _R =5V	
Luminous Intensity Matching Rate	I _v -m			2.0:1		I _F =20mA	

TOM-1588BME-B

Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-1588BME-B	AlGaInP	Ultra-orange	Black	White

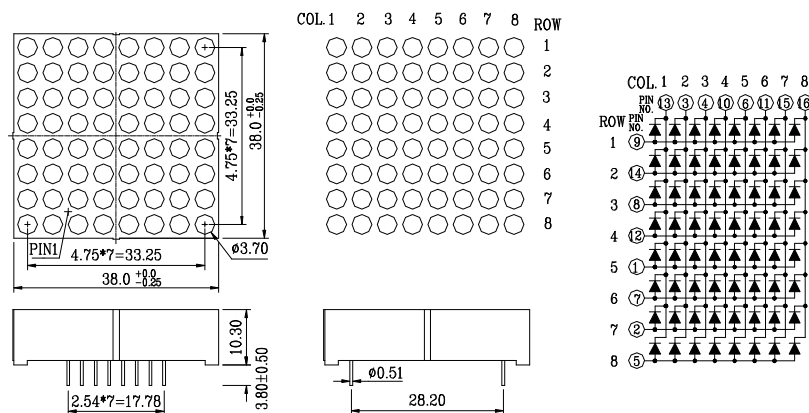
Features

- (8x8) \varnothing 3.70mm dot matrix
- Row common anode
- I.C. compatible
- Low power requirement
- RoHS compliant

Applications

- Audio equipment
- Instrument panels
- Indoor display

Package Dimensions & Internal Circuit Diagram



Notes:

1. All dimensions are in millimeters, tolerance: ± 0.25 ; Angle: $\pm 0.1^\circ$ unless otherwise noted.
2. Specifications are subject to change without notice.

Absolute Maximum Rating @ Ta=25°C

Parameter	Maximum Rating	Unit
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	80	mA
Power Dissipation Per Dot	75	mW
Continuous Forward Current	20	mA
Recommend Operating Current	12	mA
Reverse Voltage	5	V
Operating Temperature Range	-25°C to +85°C	
Storage Temperature Range	-30°C to +85°C	
Lead-Free Solder Temperature (1/16 Inch Below Seating Plane)	260°C for 3 Sec	

Electrical / Optical Characteristic @ Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition	Grade
Luminous Intensity	I _v		32907		ucd	I _F =10mA	
Dominant Wavelength	λ _d		623		nm	I _F =20mA	
Spectral Line Half-Width	Δλ		17		nm	I _F =20mA	
Forward Voltage	V _F	1.8	2.0	2.3	V	I _F =20mA	
Reverse Current	I _R			100	μA	V _R =5V	
Luminous Intensity Matching Rate	I _v -m			2.0:1		I _F =20mA	

TOM-1588BMR-D

Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-1588BMR-D	AlGaInP	Ultra-red	Black	Red

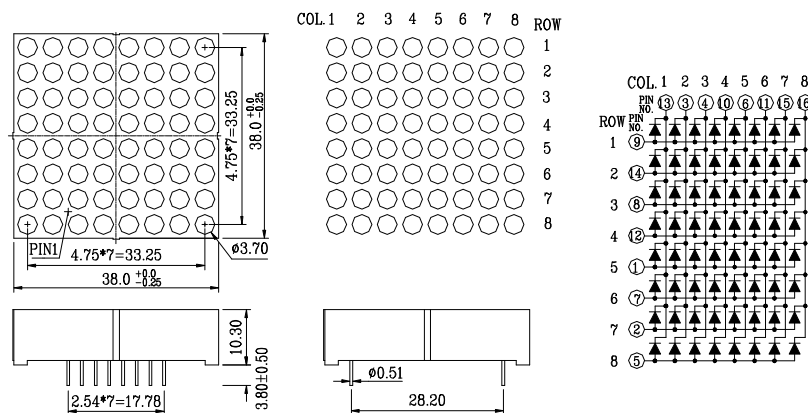
Features

- (8x8) \varnothing 3.70mm dot matrix
- Row common anode
- I.C. compatible
- Low power requirement
- RoHS compliant

Applications

- Audio equipment
- Instrument panels
- Indoor display

Package Dimensions & Internal Circuit Diagram



Notes:

1. All dimensions are in millimeters, tolerance: ± 0.25 ; Angle: $\pm 0.1^\circ$ unless otherwise noted.
2. Specifications are subject to change without notice.

Absolute Maximum Rating @ Ta=25°C

Parameter	Maximum Rating	Unit
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	80	mA
Power Dissipation Per Dot	75	mW
Continuous Forward Current	20	mA
Recommend Operating Current	12	mA
Reverse Voltage	5	V
Operating Temperature Range	-25°C to +85°C	
Storage Temperature Range	-30°C to +85°C	
Lead-Free Solder Temperature (1/16 Inch Below Seating Plane)	260°C for 3 Sec	

Electrical / Optical Characteristic @ Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition	Grade
Luminous Intensity	I _v		21937		ucd	I _F =10mA	
Dominant Wavelength	λ _d		630		nm	I _F =20mA	
Spectral Line Half-Width	Δλ		15		nm	I _F =20mA	
Forward Voltage	V _F	1.8	2.0	2.3	V	I _F =20mA	
Reverse Current	I _R			100	μA	V _R =5V	
Luminous Intensity Matching Rate	I _v -m			2.0:1		I _F =20mA	

TOM-1588BMRL-B

Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-1588BMRL-B	AlGaInP	Ultra-red	Black	White

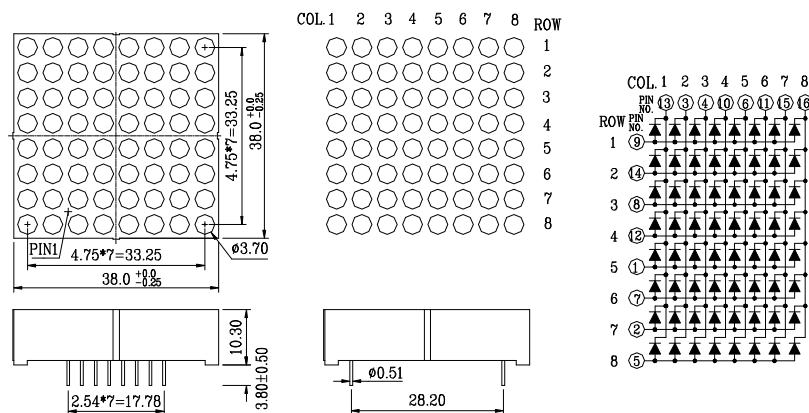
Features

- (8x8) \varnothing 3.70mm dot matrix
- Row common anode
- I.C. compatible
- Low power requirement
- RoHS compliant

Applications

- Audio equipment
- Instrument panels
- Indoor display

Package Dimensions & Internal Circuit Diagram



Notes:

1. All dimensions are in millimeters, tolerance: ± 0.25 ; Angle: $\pm 0.1^\circ$ unless otherwise noted.
2. Specifications are subject to change without notice.

Absolute Maximum Rating @ Ta=25°C

Parameter	Maximum Rating	Unit
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	80	mA
Power Dissipation Per Dot	75	mW
Continuous Forward Current	20	mA
Recommend Operating Current	12	mA
Reverse Voltage	5	V
Operating Temperature Range	-25°C to +85°C	
Storage Temperature Range	-30°C to +85°C	
Lead-Free Solder Temperature (1/16 Inch Below Seating Plane)	260°C for 3 Sec	

Electrical / Optical Characteristic @ Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition	Grade
Luminous Intensity	I _v		32907		ucd	I _F =10mA	
Dominant Wavelength	λ _d		640		nm	I _F =20mA	
Spectral Line Half-Width	Δλ		15		nm	I _F =20mA	
Forward Voltage	V _F	1.8	2.0	2.3	V	I _F =20mA	
Reverse Current	I _R			100	μA	V _R =5V	
Luminous Intensity Matching Rate	I _v -m			2.0:1		I _F =20mA	

TOM-1588BMRL-N

Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-1588BMRL-N	AlGaInP	Ultra-red	Gray	White

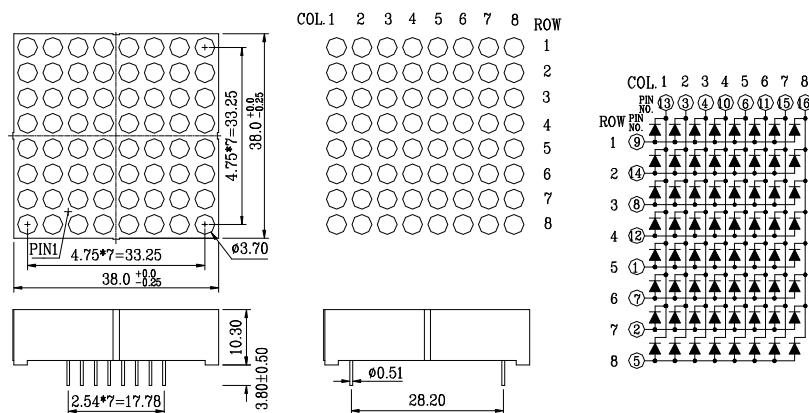
Features

- (8x8) \varnothing 3.70mm dot matrix
- Row common anode
- I.C. compatible
- Low power requirement
- RoHS compliant

Applications

- Audio equipment
- Instrument panels
- Indoor display

Package Dimensions & Internal Circuit Diagram



Notes:

1. All dimensions are in millimeters, tolerance: ± 0.25 ; Angle: $\pm 0.1^\circ$ unless otherwise noted.
2. Specifications are subject to change without notice.

Absolute Maximum Rating @ Ta=25°C

Parameter	Maximum Rating	Unit
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	80	mA
Power Dissipation Per Dot	75	mW
Continuous Forward Current	20	mA
Recommend Operating Current	12	mA
Reverse Voltage	5	V
Operating Temperature Range	-25°C to +85°C	
Storage Temperature Range	-30°C to +85°C	
Lead-Free Solder Temperature (1/16 Inch Below Seating Plane)	260°C for 3 Sec	

Electrical / Optical Characteristic @ Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition	Grade
Luminous Intensity	I _v		32907		ucd	I _F =10mA	
Dominant Wavelength	λ _d		640		nm	I _F =20mA	
Spectral Line Half-Width	Δλ		15		nm	I _F =20mA	
Forward Voltage	V _F	1.8	2.0	2.3	V	I _F =20mA	
Reverse Current	I _R			100	μA	V _R =5V	
Luminous Intensity Matching Rate	I _v -m			2.0:1		I _F =20mA	

TOM-1588BMY-B

Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-1588BMY-B	AlGaInP	Ultra-yellow	Black	White

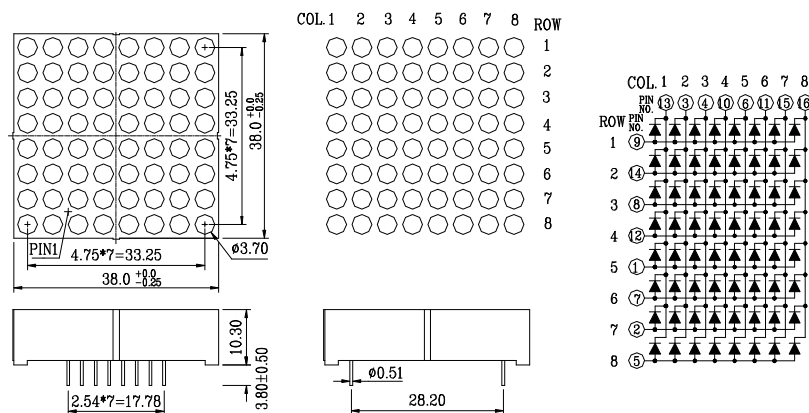
Features

- (8x8) \varnothing 3.70mm dot matrix
- Row common anode
- I.C. compatible
- Low power requirement
- RoHS compliant

Applications

- Audio equipment
- Instrument panels
- Indoor display

Package Dimensions & Internal Circuit Diagram



Notes:

1. All dimensions are in millimeters, tolerance: ± 0.25 ; Angle: $\pm 0.1^\circ$ unless otherwise noted.
2. Specifications are subject to change without notice.

Absolute Maximum Rating @ Ta=25°C

Parameter	Maximum Rating	Unit
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	80	mA
Power Dissipation Per Dot	75	mW
Continuous Forward Current	20	mA
Recommend Operating Current	12	mA
Reverse Voltage	5	V
Operating Temperature Range	-25°C to +85°C	
Storage Temperature Range	-30°C to +85°C	
Lead-Free Solder Temperature (1/16 Inch Below Seating Plane)	260°C for 3 Sec	

Electrical / Optical Characteristic @ Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition	Grade
Luminous Intensity	I _v		32907		ucd	I _F =10mA	
Dominant Wavelength	λ _d		590		nm	I _F =20mA	
Spectral Line Half-Width	Δλ		15		nm	I _F =20mA	
Forward Voltage	V _F	1.8	2.0	2.3	V	I _F =20mA	
Reverse Current	I _R			100	μA	V _R =5V	
Luminous Intensity Matching Rate	I _v -m			2.0:1		I _F =20mA	

TOM-1588HMY-B

Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-1588HMY-B	AlGaInP	Ultra-yellow	Black	White

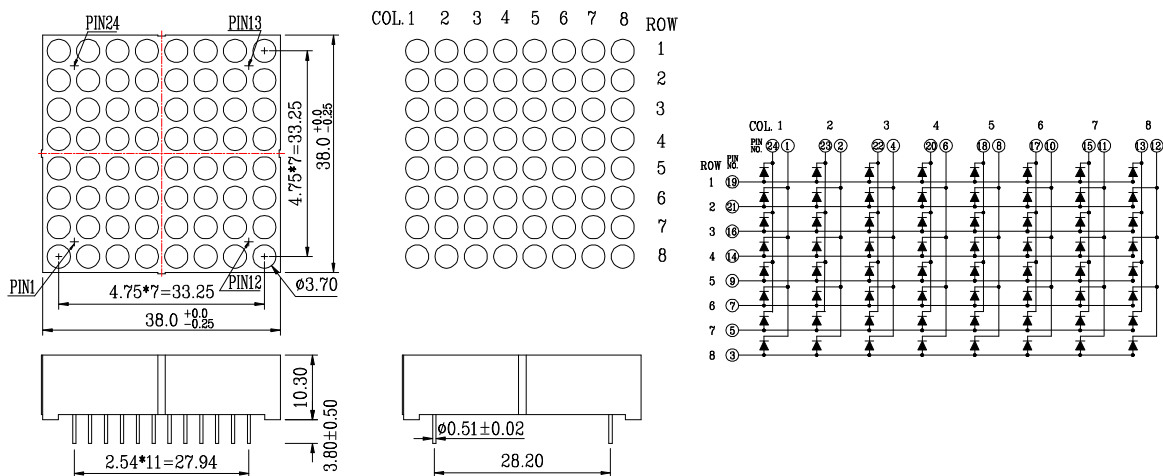
Features

- (8x8) \varnothing 3.70mm dot matrix
- Row common anode
- I.C. compatible
- Low power requirement
- RoHS compliant

Applications

- Audio equipment
- Instrument panels
- Indoor display

Package Dimensions & Internal Circuit Diagram



Notes:

1. All dimensions are in millimeters, tolerance: ± 0.25 ; Angle: $\pm 0.1^\circ$ unless otherwise noted.
2. Specifications are subject to change without notice.

Absolute Maximum Rating @ Ta=25°C

Parameter	Maximum Rating	Unit
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	80	mA
Power Dissipation Per Dot	75	mW
Continuous Forward Current	20	mA
Recommend Operating Current	12	mA
Reverse Voltage	5	V
Operating Temperature Range	-25°C to +85°C	
Storage Temperature Range	-30°C to +85°C	
Lead-Free Solder Temperature (1/16 Inch Below Seating Plane)	260°C for 3 Sec	

Electrical / Optical Characteristic @ Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition	Grade
Luminous Intensity	I _v		32907		ucd	I _F =10mA	
Dominant Wavelength	λ _d		590		nm	I _F =20mA	
Spectral Line Half-Width	Δλ		15		nm	I _F =20mA	
Forward Voltage	V _F	1.8	2.0	2.3	V	I _F =20mA	
Reverse Current	I _R			100	μA	V _R =5V	
Luminous Intensity Matching Rate	I _v -m			2.0:1		I _F =20mA	

TOM-1688BMG-N

Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-1688BMG-N	AlGaInP	Ultra green	Gray	White

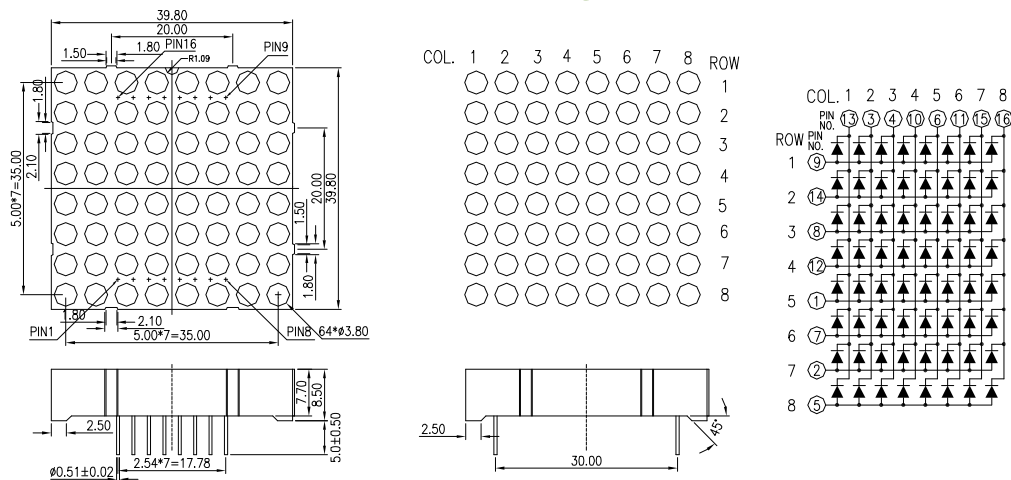
Features

- (8x8) \varnothing 3.80mm dot matrix
- Row common anode
- I.C. compatible
- Low power requirement
- RoHS compliant

Applications

- Audio equipment
- Instrument panels
- Indoor display

Package Dimensions & Internal Circuit Diagram



Notes:

1. All dimensions are in millimeters, tolerance: ± 0.25 ; Angle: $\pm 0.1^\circ$ unless otherwise noted.
2. Specifications are subject to change without notice.

Absolute Maximum Rating @ Ta=25°C

Parameter	Maximum Rating	Unit
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	80	mA
Power Dissipation	75	mW
Continuous Forward Current	20	mA
Recommend Operating Current	12	mA
Reverse Voltage	5	V
Operating Temperature Range	-25°C to +85°C	
Storage Temperature Range	-30°C to +85°C	
Lead-Free Solder Temperature (1/16 Inch Below Seating Plane)	260°C for 3 Sec	

Electrical / Optical Characteristic @ Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition	Grade
Luminous Intensity	I _v		11941		ucd	I _F =10mA	
Dominant Wavelength	λ _d		572		nm	I _F =20mA	
Spectral Line Half-Width	Δλ		15		nm	I _F =20mA	
Forward Voltage	V _F	1.8	2.0	2.3	V	I _F =20mA	
Reverse Current	I _R			100	μA	V _R =5V	
Luminous Intensity Matching Rate	I _v -m			2.0:1		I _F =20mA	

TOM-1688BMR-B6

Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-1688BMR-B6	AlGaInP	Ultra-Red	Black	White

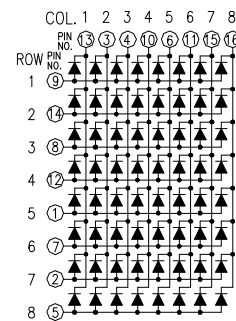
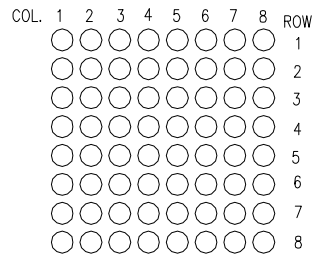
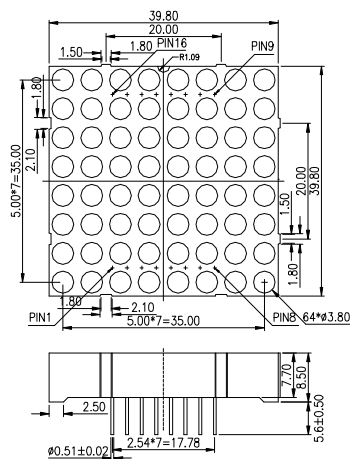
Features

- (8x8) \varnothing 3.80mm dot matrix
- Row common anode
- I.C. compatible
- Low power requirement
- RoHS compliant

Applications

- Audio equipment
- Instrument panels
- Indoor display

Package Dimensions & Internal Circuit Diagram



Notes:

1. All dimensions are in millimeters, tolerance: ± 0.25 ; Angle: $\pm 0.1^\circ$ unless otherwise noted.
2. Specifications are subject to change without notice.

Absolute Maximum Rating @ Ta=25°C

Parameter	Maximum Rating	Unit
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	80	mA
Power Dissipation	75	mW
Continuous Forward Current	20	mA
Recommend Operating Current	12	mA
Reverse Voltage	5	V
Operating Temperature Range	-25°C to +85°C	
Storage Temperature Range	-30°C to +85°C	
Lead-Free Solder Temperature (1/16 Inch Below Seating Plane)	260°C for 3 Sec	

Electrical / Optical Characteristic @ Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition	Grade
Luminous Intensity	I _v		15524		ucd	I _F =10mA	
Dominant Wavelength	λ _d		630		nm	I _F =20mA	
Spectral Line Half-Width	Δλ		15		nm	I _F =20mA	
Forward Voltage	V _F	1.8	2.0	2.3	V	I _F =20mA	
Reverse Current	I _R			100	μA	V _R =5V	
Luminous Intensity Matching Rate	I _v -m			2.0:1		I _F =20mA	

The DISPLAYS should be kept at 30°C or less and 60%RH or less. The DISPLAYS should be used within one year.

TOM-1988BEG-B

Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-1988BEG-B	GaAsP	Orange	Black	White
	GaP	Green		

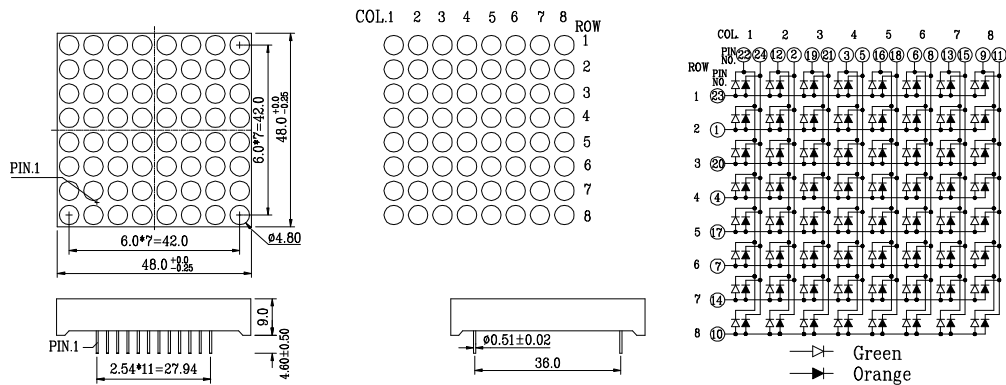
Features

- (8x8) \varnothing 4.8mm dot matrix
- Row common anode
- I.C. compatible
- Low power requirement
- RoHS compliant

Applications

- Audio equipment
- Instrument panels
- Multi-color display

Package Dimensions & Internal Circuit Diagram



Notes:

1. All dimensions are in millimeters, tolerance: ± 0.25 ; Angle: $\pm 0.1^\circ$ unless otherwise noted.
2. Specifications are subject to change without notice.

Absolute Maximum Rating @ Ta=25°C

Parameter	Maximum Rating	Unit
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	80	mA
Power Dissipation Per Dice	75	mW
Continuous Forward Current Per Dice	20	mA
Recommend Operating Current Per Dice	12	mA
Reverse Voltage Per Dice	5	V
Operating Temperature Range	-25°C to +85°C	
Storage Temperature Range	-30°C to +85°C	
Lead Free Solder Temperature(1/16 Inch Below Seating Plane)	260°C for 3 Sec	

Electrical / Optical Characteristic @ Ta=25°C

Parameter	Symbol		Min.	Typ.	Max.	Unit	Test Condition	Grade
Luminous Intensity	I _v	E		9185		ucd	I _F =10mA	
Luminous Intensity	I _v	G		11941		ucd	I _F =10mA	
Peak Wavelength	λ _p	E		630		nm	I _F =20mA	
Peak Wavelength	λ _p	G		570		nm	I _F =20mA	
Spectral Line Half-Width	Δλ	E		35		nm	I _F =20mA	
Spectral Line Half-Width	Δλ	G		30		nm	I _F =20mA	
Forward Voltage	V _F	E	1.8	2.1	2.4	V	I _F =20mA	
Forward Voltage	V _F	G	1.9	2.2	2.5	V	I _F =20mA	
Reverse Current	I _R				20	μA	V _R =5V	
Luminous Intensity Matching Rate	I _v -m				1.5:1		I _F =20mA	

TOM-1988BMG-B

Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-1988BMG-B	AlGaInP	Ultra-green	Black	White

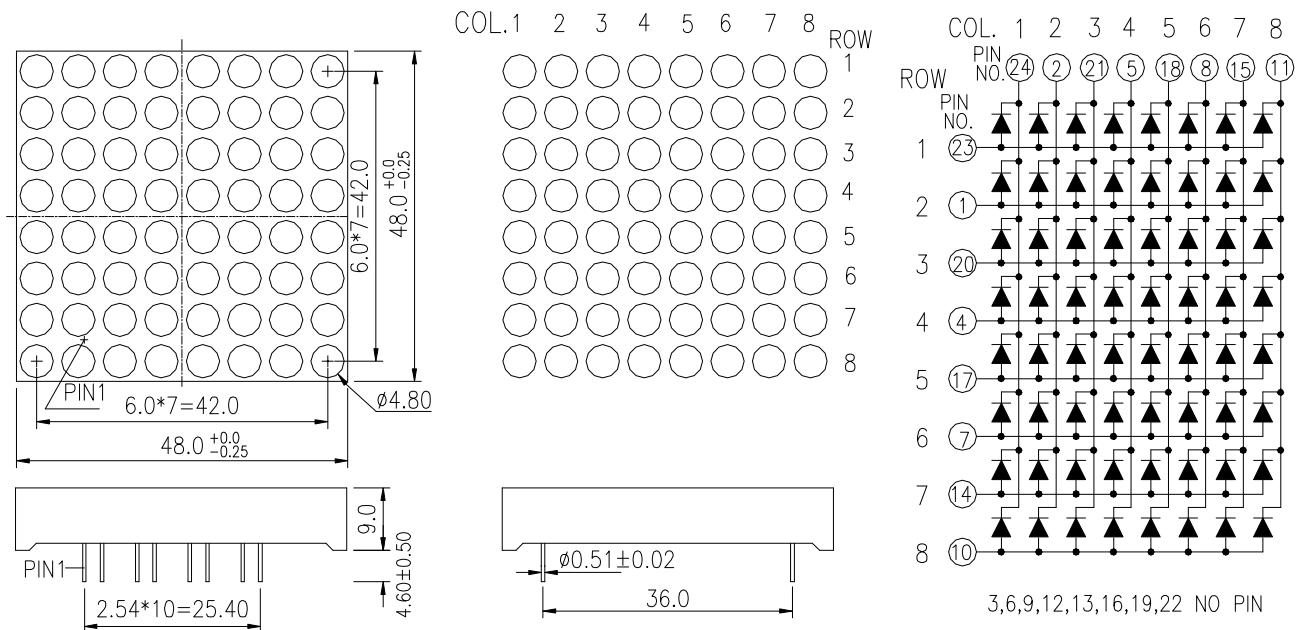
Features

- (8x8) \varnothing 4.80mm dot matrix
- Row common anode
- I.C. compatible
- Low power requirement
- RoHS compliant

Applications

- Audio equipment
- Instrument panels
- Indoor display

Package Dimensions & Internal Circuit Diagram



Notes:

1. All dimensions are in millimeters, tolerance: ± 0.25 ; Angle: $\pm 0.1^\circ$ unless otherwise noted.
2. Specifications are subject to change without notice.

Absolute Maximum Rating @ Ta=25°C

Parameter	Maximum Rating	Unit
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width) Per Dice	80	mA
Power Dissipation Per Dice	75	mW
Continuous Forward Current Per Dice	20	mA
Recommend Operating Current Per Dice	12	mA
Reverse Voltage Per Dice	5	V
Operating Temperature Range	-25°C to +85°C	
Storage Temperature Range	-30°C to +85°C	
Lead-Free Solder Temperature (1/16 Inch Below Seating Plane)	260°C for 3 Sec	

Electrical / Optical Characteristic @ Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition	Grade
Luminous Intensity	I _v		21937		ucd	I _F =10mA	
Dominant Wavelength	λ _d		570		nm	I _F =20mA	
Spectral Line Half-Width	Δλ		15		nm	I _F =20mA	
Forward Voltage	V _F	1.8	2.0	2.3	V	I _F =20mA	
Reverse Current	I _R			100	μA	V _R =5V	
Luminous Intensity Matching Rate	I _v -m			2.0:1		I _F =20mA	

The DISPLAYS should be kept at 30°C or less and 60%RH or less. The DISPLAYS should be used within one year.

TOM-1988CsW-1N

Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-1988CsW-1N	InGaN	White	Gray	White

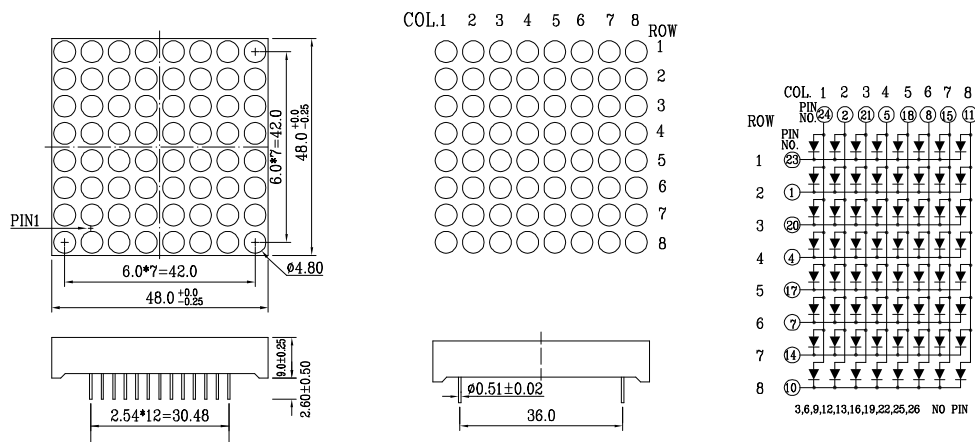
Features

- (8x8) \varnothing 4.80mm dot matrix
- Row common cathode
- I.C. compatible
- Low power requirement
- RoHS compliant

Applications

- Audio equipment
- Instrument panels
- Indoor display

Package Dimensions & Internal Circuit Diagram



Notes:

1. All dimensions are in millimeters, tolerance: ± 0.25 ; Angle: $\pm 0.1^\circ$ unless otherwise noted.
2. Specifications are subject to change without notice.

Absolute Maximum Rating @ Ta=25°C

Parameter	Maximum Rating	Unit
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	80	mA
Power Dissipation Per Dot	105	mW
Continuous Forward Current	20	mA
Recommend Operating Current	12	mA
Reverse Voltage	5	V
Operating Temperature Range	-25°C to +85°C	
Storage Temperature Range	-30°C to +85°C	
Lead-Free Solder Temperature (1/16 Inch Below Seating Plane)	260°C for 3 Sec	

Electrical / Optical Characteristic @ Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition	Grade
Chromaticity Coordinates	X		0.30			I _F =5mA	
Chromaticity Coordinates	Y		0.29			I _F =5mA	
Forward Voltage	V _F		3.2	3.5	V	I _F =20mA	
Reverse Current	I _R			100	μA	V _R =5V	
Luminous Intensity Matching Rate	Iv-m			2.0:1		I _F =20mA	

The DISPLAYS should be kept at 30°C or less and 60%RH or less. The DISPLAYS should be used within one year.

TOM-1988FMG-N

Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-1988FMG-N	AlGaInP	Ultra-green	Gray	White

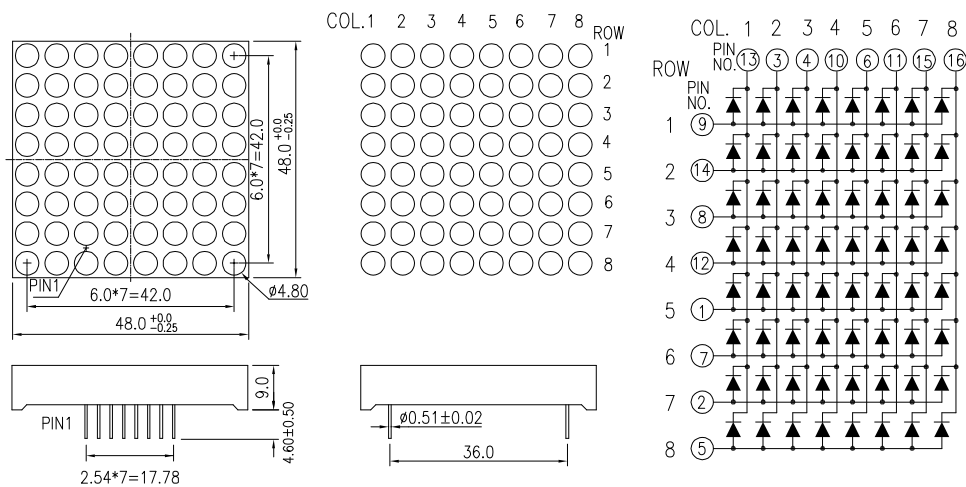
Features

- (8x8) \varnothing 4.80mm dot matrix
- Row common anode
- I.C. compatible
- Low power requirement
- RoHS compliant

Applications

- Audio equipment
- Instrument panels
- Indoor display

Package Dimensions & Internal Circuit Diagram



Notes:

1. All dimensions are in millimeters, tolerance: ± 0.25 ; Angle: $\pm 3^\circ$ unless otherwise noted.
2. Specifications are subject to change without notice.

Absolute Maximum Rating @ Ta=25°C

Parameter	Maximum Rating	Unit
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	80	mA
Power Dissipation Per Dot	75	mW
Continuous Forward Current	20	mA
Recommend Operating Current	12	mA
Reverse Voltage	5	V
Operating Temperature Range	-25°C to +85°C	
Storage Temperature Range	-30°C to +85°C	
Lead-Free Solder Temperature (1/16 Inch Below Seating Plane)	260°C for 3 Sec	

Electrical / Optical Characteristic @ Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition	Grade
Luminous Intensity	I _v		15524		ucd	I _F =10mA	
Dominant Wavelength	λ _d		572		nm	I _F =20mA	
Spectral Line Half-Width	Δλ		15		nm	I _F =20mA	
Forward Voltage	V _F	1.8	2.0	2.3	V	I _F =20mA	
Reverse Current	I _R			100	μA	V _R =5V	
Luminous Intensity Matching Rate	I _v -m			2.0:1		I _F =20mA	

TOM-2088AME-N

Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-2088AME-N	AlGaInP	Ultra-orange	Gray	White

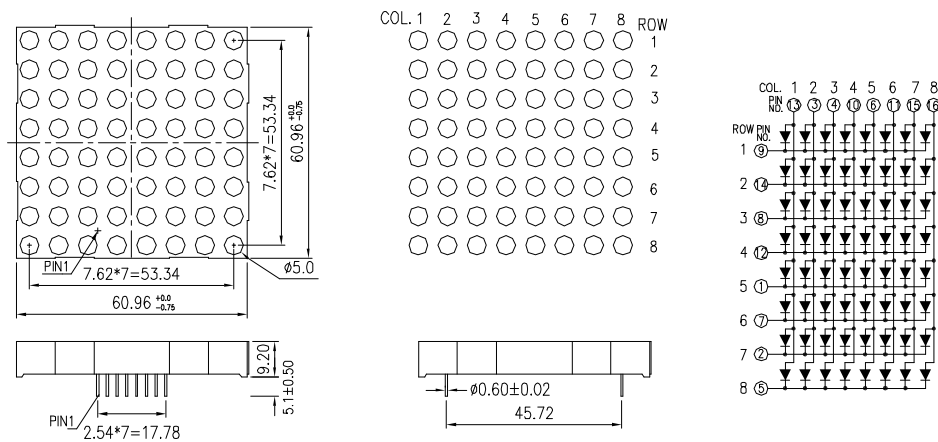
Features

- (8x8) \varnothing 5.0mm dot matrix
- Row common cathode
- I.C. compatible
- Low power requirement
- RoHS compliant

Applications

- Audio equipment
- Instrument panels
- Indoor display

Package Dimensions & Internal Circuit Diagram



Notes:

1. All dimensions are in millimeters, tolerance: ± 0.25 ; Angle: $\pm 0.1^\circ$ unless otherwise noted.
2. Specifications are subject to change without notice.

Absolute Maximum Rating @ Ta=25°C

Parameter	Maximum Rating	Unit
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	80	mA
Power Dissipation Per Dot	75	mW
Continuous Forward Current	20	mA
Recommend Operating Current	12	mA
Reverse Voltage	5	V
Operating Temperature Range	-25°C to +85°C	
Storage Temperature Range	-30°C to +85°C	
Lead-Free Solder Temperature(1/16 Inch Below Seating Plane)	260°C for 3 Sec	

Electrical / Optical Characteristic @ Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition	Grade
Luminous Intensity	I _v		49362		ucd	I _F =10mA	
Dominant Wavelength	λ _d		623		nm	I _F =20mA	
Spectral Line Half-Width	Δλ		17		nm	I _F =20mA	
Forward Voltage	V _F	1.8	2.0	2.3	V	I _F =20mA	
Reverse Current	I _R			100	μA	V _R =5V	
Luminous Intensity Matching Rate	I _v -m			2.0:1		I _F =20mA	

TOM-2088BMY-N-U

Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-2088BMY-N-U	AlGaInP	Ultra-Yellow	Gray	White

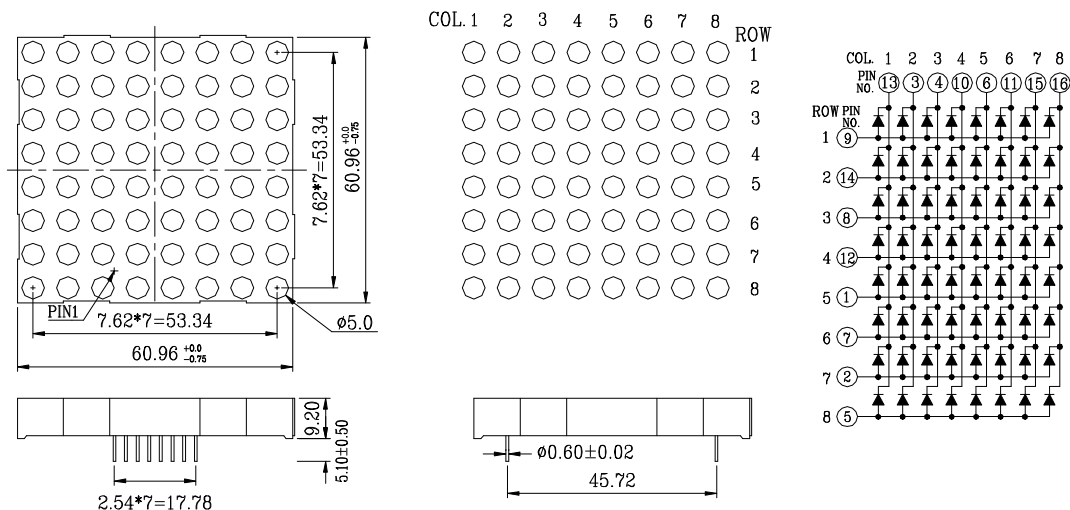
Features

- (8x8) \varnothing 5.0mm dot matrix
- Row common anode
- I.C. compatible
- Low power requirement
- RoHS compliant

Applications

- Audio equipment
- Instrument panels
- Indoor display

Package Dimensions & Internal Circuit Diagram



Notes:

1. All dimensions are in millimeters, tolerance: ± 0.25 ; Angle: $\pm 0.1^\circ$ unless otherwise noted.
2. Specifications are subject to change without notice.

Absolute Maximum Rating @ Ta=25°C

Parameter	Maximum Rating	Unit
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width) Per Dice	80	mA
Power Dissipation Per Dot Per Dice	75	mW
Continuous Forward Current Per Dice	20	mA
Recommend Operating Current Per Dice	12	mA
Reverse Voltage Per Dice	5	V
Operating Temperature Range	-25°C to +85°C	
Storage Temperature Range	-30°C to +85°C	
Lead-Free Solder Temperature(1/16 Inch Below Seating Plane)	260°C for 3 Sec	

Electrical / Optical Characteristic @ Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition	Grade
Luminous Intensity Per Dot.	I _v		49362		ucd	I _F =10mA	
Dominant Wavelength	λ _d		590		nm	I _F =20mA	
Spectral Line Half-Width	Δλ		15		nm	I _F =20mA	
Forward Voltage Per Dice	V _F	1.8	2.0	2.3	V	I _F =20mA	
Reverse Current Per Dice	I _R			100	μA	V _R =5V	
Luminous Intensity Matching Rate	I _v -m			2.0:1		I _F =20mA	

The DISPLAYS should be kept at 30°C or less and 60%RH or less. The DISPLAYS should be used within one year.

TOM-5188BME-B

Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-5188BME-B	AlGaInP	Ultra-orange	Black	White

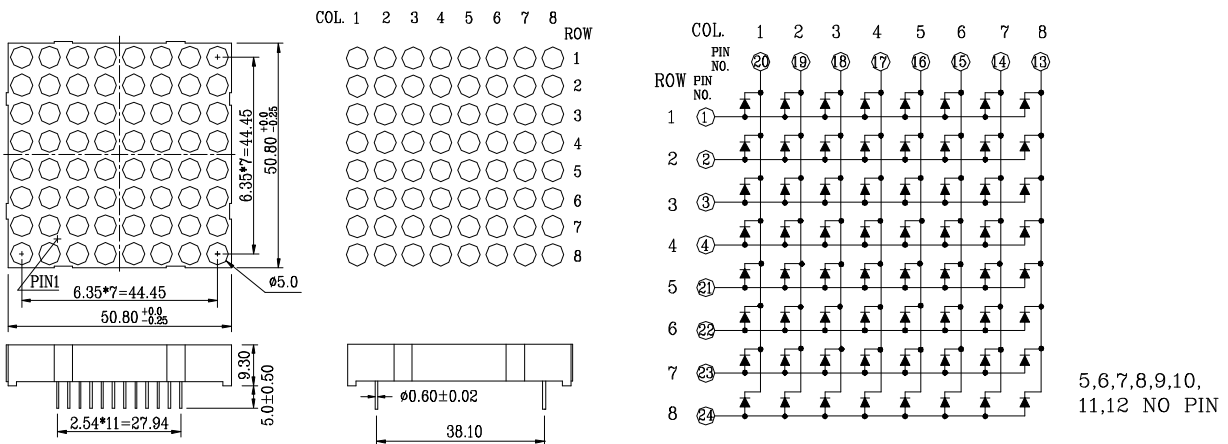
Features

- (8x8) \varnothing 5.0mm dot matrix
- Row common anode
- I.C. compatible
- Low power requirement
- RoHS compliant

Applications

- Audio equipment
- Instrument panels
- Indoor display

Package Dimensions & Internal Circuit Diagram



Notes:

1. All dimensions are in millimeters, tolerance: ± 0.25 ; Angle: $\pm 0.1^\circ$ unless otherwise noted.
2. Specifications are subject to change without notice.

Absolute Maximum Rating @ Ta=25°C

Parameter	Maximum Rating	Unit
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	80	mA
Power Dissipation Per Dot	75	mW
Continuous Forward Current	20	mA
Recommend Operating Current	12	mA
Reverse Voltage	5	V
Operating Temperature Range	-25°C to +85°C	
Storage Temperature Range	-30°C to +85°C	
Lead-Free Solder Temperature(1/16 Inch Below Seating Plane)	260°C for 3 Sec	

Electrical / Optical Characteristic @ Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition	Grade
Luminous Intensity	I _v		32907		ucd	I _F =10mA	
Dominant Wavelength	λ _d		623		nm	I _F =20mA	
Spectral Line Half-Width	Δλ		17		nm	I _F =20mA	
Forward Voltage	V _F	1.8	2.0	2.3	V	I _F =20mA	
Reverse Current	I _R			100	μA	V _R =5V	
Luminous Intensity Matching Rate	I _v -m			2.0:1		I _F =20mA	