

# TOM-1058AME-B

## Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-1058AME-B	AlGaInP	Ultra-orange	Black	White

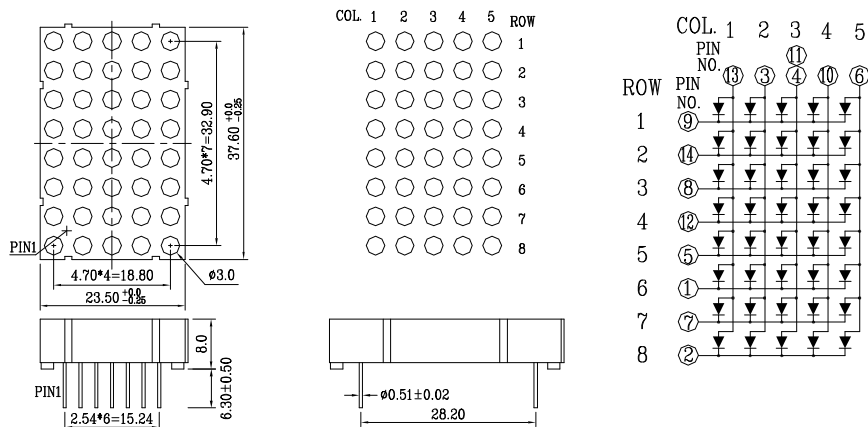
### Features

- (8x5)  $\varnothing$  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:  $\pm 0.25$  ; 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 <sub>v</sub>		32907		ucd	I <sub>F</sub> =10mA	
Dominant Wavelength	λ <sub>d</sub>		623		nm	I <sub>F</sub> =20mA	
Spectral Line Half-Width	Δλ		17		nm	I <sub>F</sub> =20mA	
Forward Voltage	V <sub>F</sub>	1.8	2.0	2.3	V	I <sub>F</sub> =20mA	
Reverse Current	I <sub>R</sub>			100	μA	V <sub>R</sub> =5V	
Luminous Intensity Matching Rate	I <sub>v</sub> -m			2.0:1		I <sub>F</sub> =20mA	

# TOM-1058AMG-B

## Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-1058AMG-B	AlGaInP	Ultra-green	Black	White

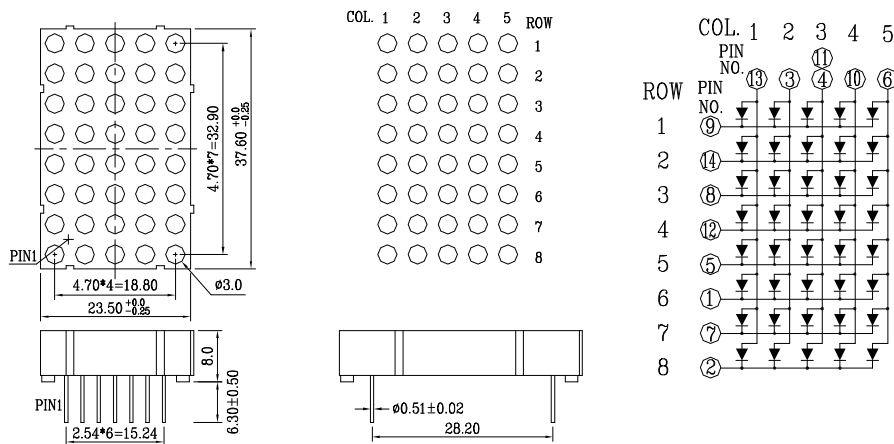
### Features

- (8x5)  $\varnothing$  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:  $\pm 0.25$  ; 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 <sub>v</sub>		15524		ucd	I <sub>F</sub> =10mA	
Dominant Wavelength	λ <sub>d</sub>		572		nm	I <sub>F</sub> =20mA	
Spectral Line Half-Width	Δλ		15		nm	I <sub>F</sub> =20mA	
Forward Voltage	V <sub>F</sub>	1.8	2.0	2.3	V	I <sub>F</sub> =20mA	
Reverse Current	I <sub>R</sub>			100	μA	V <sub>R</sub> =5V	
Luminous Intensity Matching Rate	I <sub>v</sub> -m			2.0:1		I <sub>F</sub> =20mA	

# TOM-1058AMRL-B

## Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-1058AMRL-B	AlGaInP	Ultra-red	Black	White

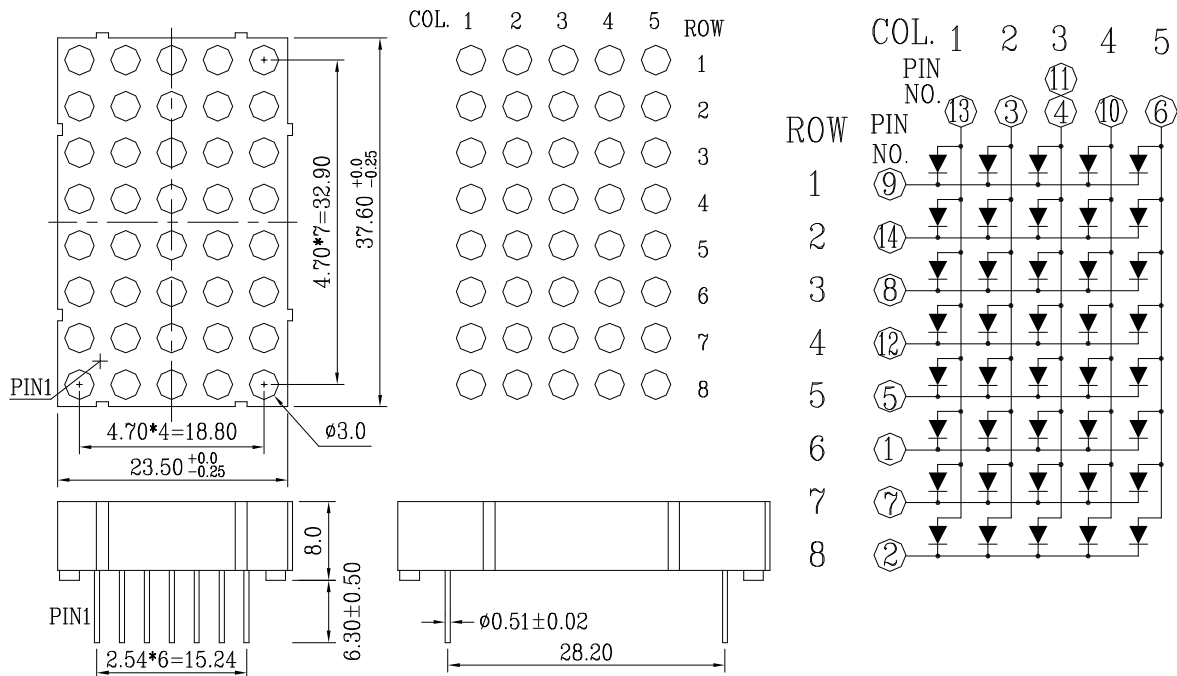
### Features

- Common Cathode
- I.C. compatible
- 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:  $\pm 0.25$  ; Angle:  $\pm 1^\circ$  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	60	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 <sub>v</sub>		21937		ucd	I <sub>F</sub> =10mA	
Dominant Wavelength	λ <sub>d</sub>		640		nm	I <sub>F</sub> =20mA	
Spectral Line Half-Width	Δλ		15		nm	I <sub>F</sub> =20mA	
Forward Voltage	V <sub>F</sub>	1.8	2.0	2.3	V	I <sub>F</sub> =20mA	
Reverse Current	I <sub>R</sub>			100	μA	V <sub>R</sub> =5V	
Luminous Intensity Matching Rate	I <sub>v</sub> -m			2.0:1		I <sub>F</sub> =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-1058BMB-B

## Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-1058BMB-B	InGaN	Hi-blue	Black	White

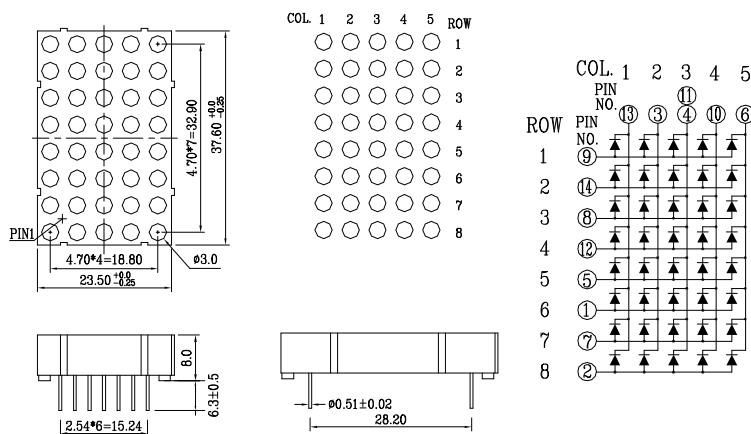
### Features

- (8x5)  $\varnothing$  3.0mm 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: +0.1 -0.3 ; 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 <sub>v</sub>		49362		ucd	I <sub>F</sub> =10mA	
Dominant Wavelength	λ <sub>d</sub>		465		nm	I <sub>F</sub> =20mA	
Spectral Line Half-Width	Δλ		26		nm	I <sub>F</sub> =20mA	
Forward Voltage	V <sub>F</sub>		3.2	3.5	V	I <sub>F</sub> =20mA	
Reverse Current	I <sub>R</sub>			100	μA	V <sub>R</sub> =5V	
Luminous Intensity Matching Rate	I <sub>v</sub> -m			2.0:1		I <sub>F</sub> =20mA	



# TOM-1058BME-B

## Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-1058BME-B	AlGaInP	Ultra-orange	Black	White

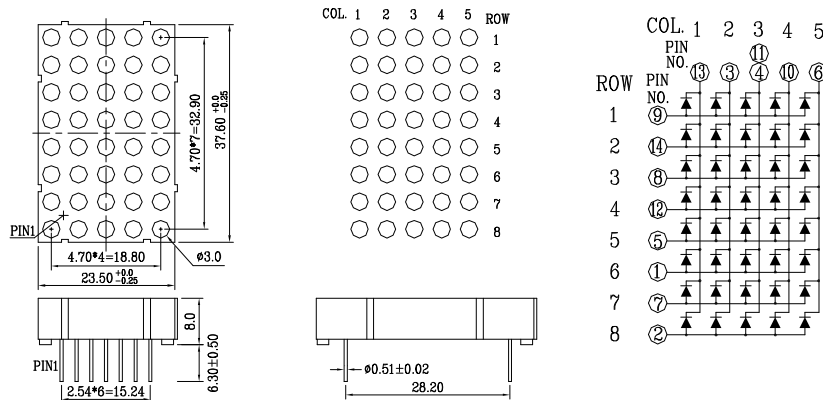
### Features

- (8x5)  $\varnothing$  3.0mm 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:  $\pm 0.25$  ; 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 <sub>v</sub>		32907		ucd	I <sub>F</sub> =10mA	
Dominant Wavelength	λ <sub>d</sub>		623		nm	I <sub>F</sub> =20mA	
Spectral Line Half-Width	Δλ		17		nm	I <sub>F</sub> =20mA	
Forward Voltage	V <sub>F</sub>	1.8	2.0	2.3	V	I <sub>F</sub> =20mA	
Reverse Current	I <sub>R</sub>			100	μA	V <sub>R</sub> =5V	
Luminous Intensity Matching Rate	I <sub>v</sub> -m			2.0:1		I <sub>F</sub> =20mA	

# TOM-2058BMRL-B

## Dot Matrix Display LED



Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-2058BMRL-B	AlGaInP	Ultra-red	Black	White

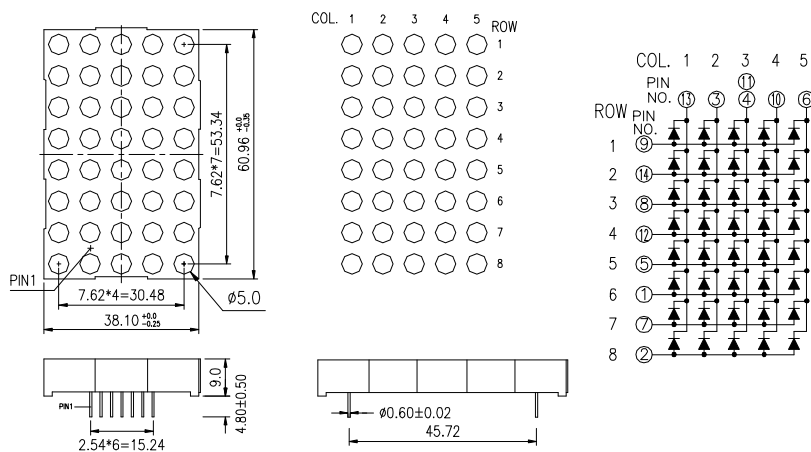
### Features

- (5x8)  $\varnothing$  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:  $\pm 0.25$  ; 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 <sub>v</sub>		15524		ucd	I <sub>F</sub> =10mA	
Dominant Wavelength	λ <sub>d</sub>		640		nm	I <sub>F</sub> =20mA	
Spectral Line Half-Width	Δλ		15		nm	I <sub>F</sub> =20mA	
Forward Voltage	V <sub>F</sub>	1.8	2.0	2.3	V	I <sub>F</sub> =20mA	
Reverse Current	I <sub>R</sub>			100	μA	V <sub>R</sub> =5V	
Luminous Intensity Matching Rate	I <sub>v</sub> -m			2.0:1		I <sub>F</sub> =20mA	

# TOM-3058BMRL-B

## Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-3058BMRL-B	AlGaInP	Ultra-red	Black	White

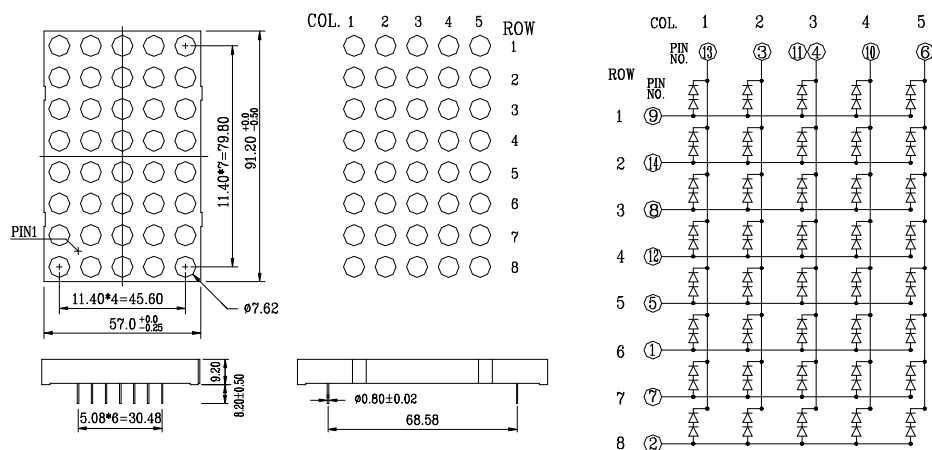
### Features

- (5x8)  $\phi$  7.62mm 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:  $\pm 0.1^\circ$  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	150	mW
Continuous Forward Current	20	mA
Recommend Operating Current	12	mA
Reverse Voltage	10	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 <sub>v</sub>		21937		ucd	I <sub>F</sub> =10mA	
Dominant Wavelength	λ <sub>d</sub>		640		nm	I <sub>F</sub> =20mA	
Spectral Line Half-Width	Δλ		15		nm	I <sub>F</sub> =20mA	
Forward Voltage	V <sub>F</sub>	3.6	4.0	4.6	V	I <sub>F</sub> =20mA	
Reverse Current	I <sub>R</sub>			100	μA	V <sub>R</sub> =10V	
Luminous Intensity Matching Rate	I <sub>v</sub> -m			2.0:1		I <sub>F</sub> =20mA	

# TOM-4058AMR-N

## Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-4058AMR-N	AlGaInP	Ultra-red	Gray	White

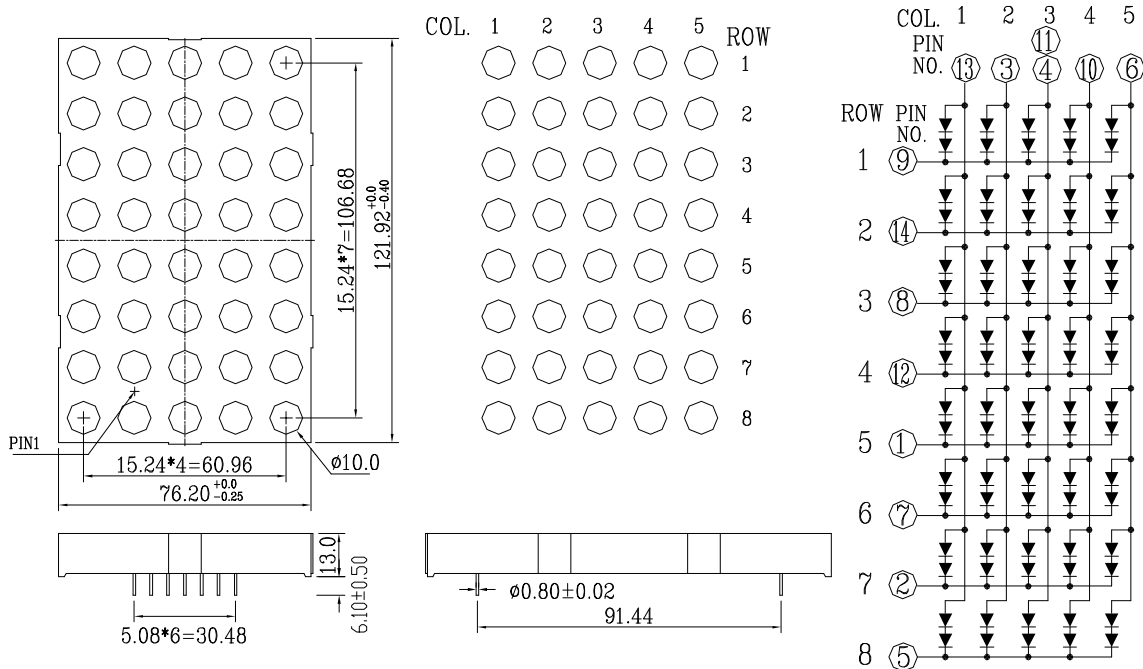
### Features

- Common Cathode
- I.C. compatible
- 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:  $\pm 0.25$  ; Angle:  $\pm 1^\circ$  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)	100	mA
Power Dissipation	160	mW
Continuous Forward Current	20	mA
Recommend Operating Current	20	mA
Reverse Voltage	10	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 wavelength)	I <sub>v</sub>		15524		ucd	I <sub>F</sub> =10mA	
Dominant Wavelength	λ <sub>d</sub>		630		nm	I <sub>F</sub> =20mA	
Spectral Line Half-Width	Δλ		15		nm	I <sub>F</sub> =20mA	
Forward Voltage	V <sub>F</sub>	1.8	2.0	2.3	V	I <sub>F</sub> =20mA	
Reverse Current	I <sub>R</sub>			100	μA	V <sub>R</sub> =5V	
Luminous Intensity Matching Rate	I <sub>v</sub> -m			2.0:1		I <sub>F</sub> =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-4058AMY-B

## Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-4058AMY-B	AlGaInP	Ultra-yellow	Black	White

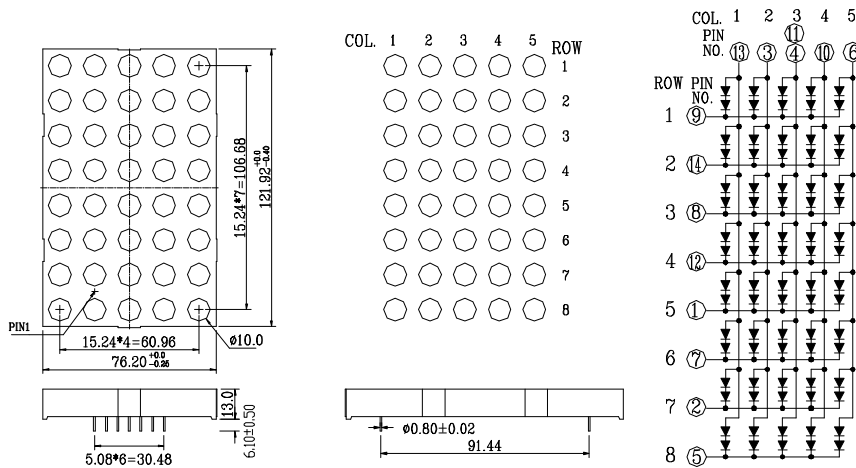
### Features

- (5x8)  $\varnothing$  10.0mm 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:  $\pm 0.25$  ; 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	150	mW
Continuous Forward Current	20	mA
Recommend Operating Current	12	mA
Reverse Voltage	10	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 <sub>v</sub>		21937		ucd	I <sub>F</sub> =10mA	
Dominant Wavelength	λ <sub>d</sub>		590		nm	I <sub>F</sub> =20mA	
Spectral Line Half-Width	Δλ		15		nm	I <sub>F</sub> =20mA	
Forward Voltage	V <sub>F</sub>	3.6	4.0	4.6	V	I <sub>F</sub> =20mA	
Reverse Current	I <sub>R</sub>			100	μA	V <sub>R</sub> =10V	
Luminous Intensity Matching Rate	I <sub>v</sub> -m			2.0:1		I <sub>F</sub> =20mA	