

# TOM-D1216CMY-B

## Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-D1216CMY-B	AlGaInP	Ultra-yellow	Black	

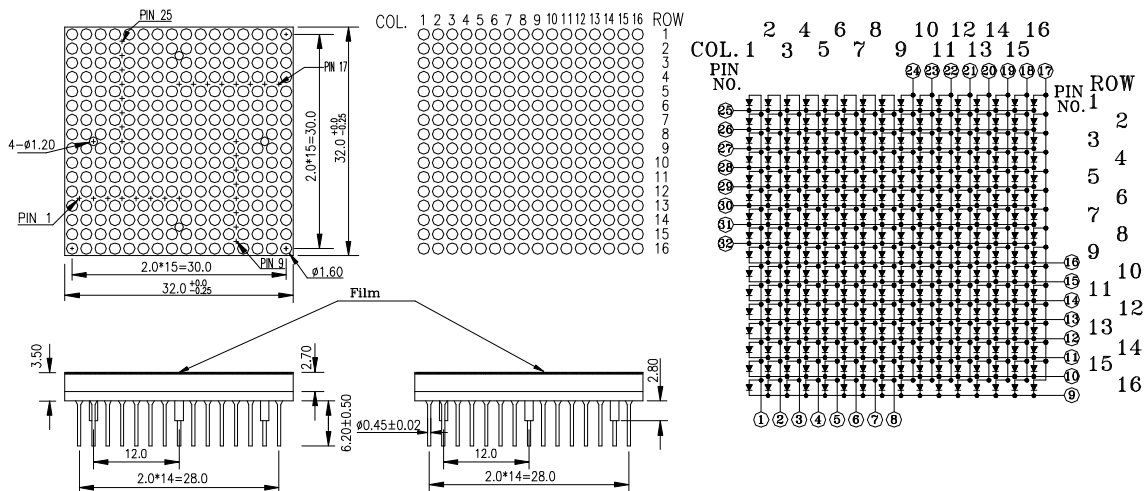
### Features

- (16x16)  $\phi$  1.6mm dot matrix
- Row 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	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

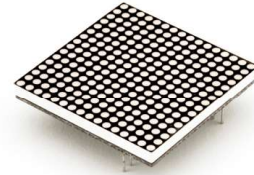
Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition	Grade
Luminous Intensity	I <sub>v</sub>		15524		ucd	I <sub>F</sub> =10mA	
Dominant Wavelength	λ <sub>d</sub>		590		nm	I <sub>F</sub> =20mA	
Spectral Line Half-Width	Δλ		15		nm	I <sub>F</sub> =20mA	
Forward Voltage	V <sub>F</sub>	1.8	2.0	2.3	V	I <sub>F</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 DISPLAY's should be kept at 30°C or less and 60%RH or less. The DISPLAY's should be used with in one year

# TOM-D1216DMY-B

## Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-D1216DMY-B	AlGaInP	Ultra-yellow	Black	



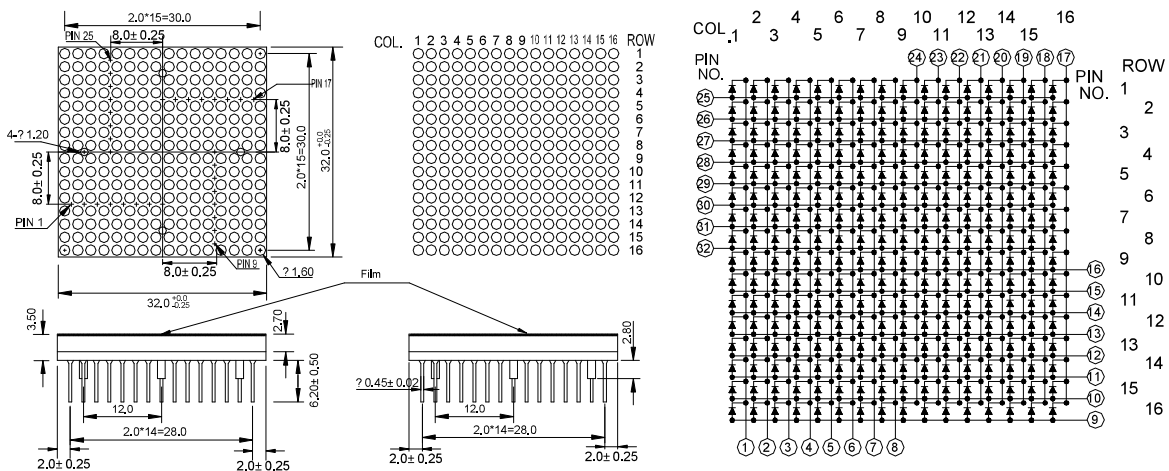
### Features

- (16x16)  $\phi$  1.6mm 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	

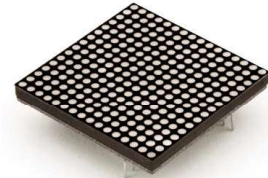
## Electrical / Optical Characteristic @ Ta=25°C

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>		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>	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-D1316DG-B-FB

## Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-D1316DG-B-FB	GaP	Green	Black	



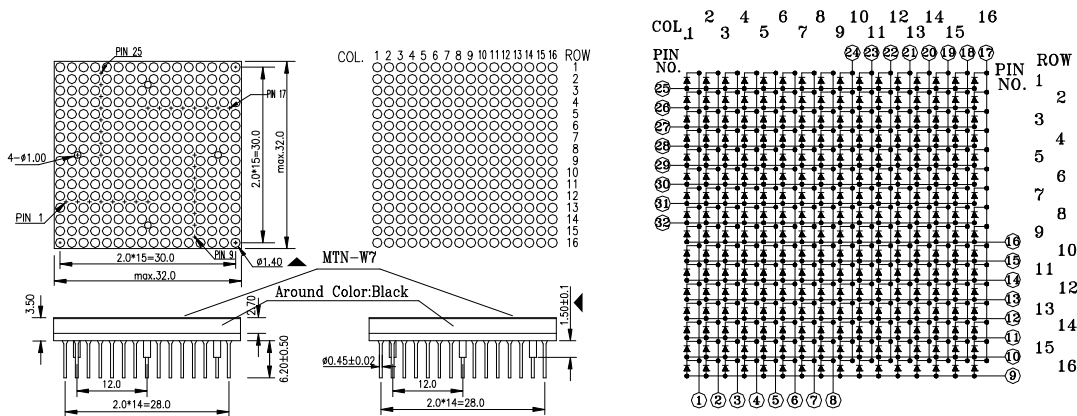
### Features

- (16x16)  $\phi$  1.4mm 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	

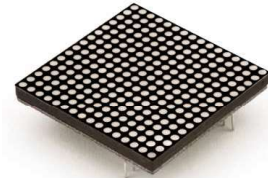
## Electrical / Optical Characteristic @ Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition	Grade
Luminous Intensity	I <sub>v</sub>		4113		ucd	I <sub>F</sub> =10mA	
Peak Wavelength	λ <sub>p</sub>		570		nm	I <sub>F</sub> =20mA	
Spectral Line Half-Width	Δλ		30		nm	I <sub>F</sub> =20mA	
Forward Voltage	V <sub>F</sub>	1.9	2.20	2.5	V	I <sub>F</sub> =20mA	
Reverse Current	I <sub>R</sub>			20	μA	V <sub>R</sub> =5V	
Luminous Intensity Matching Rate	I <sub>v</sub> -m			1.5:1		I <sub>F</sub> =20mA	

# TOM-D1316DMR-B-FB

## Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-D1316DMR-B-FB	AlGaInP	Ultra-red	Black	



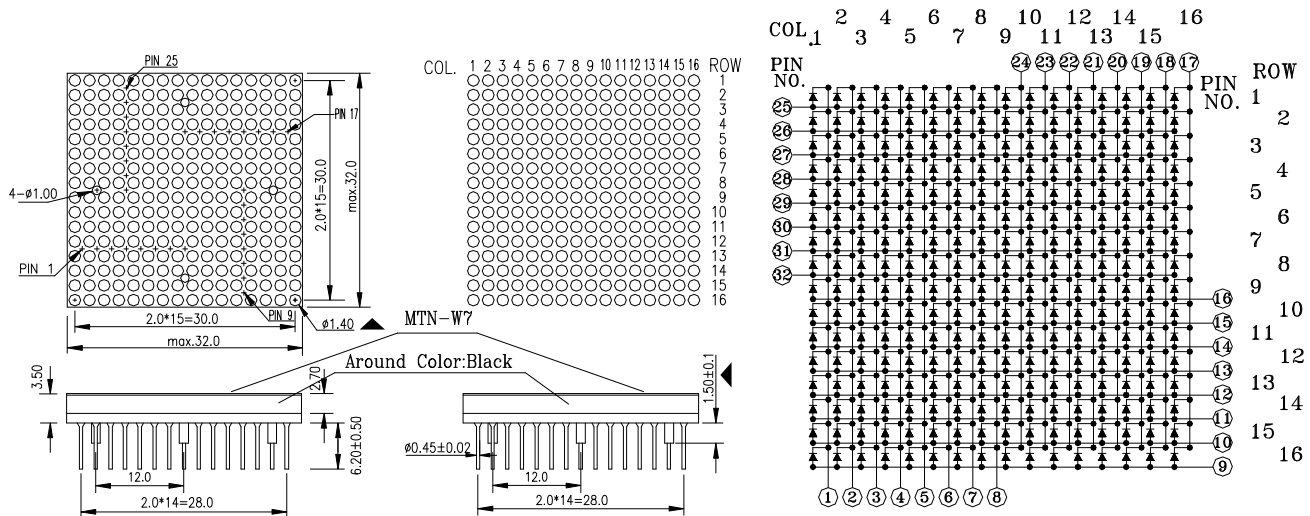
### Features

- (16x16)  $\phi$  1.4mm 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:  $\pm 1^\circ$  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	
Peak Wavelength	λ <sub>p</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-D1516AMG-B

## Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-D1516AMG-B	AlGaInP	Ultra-green	Black	

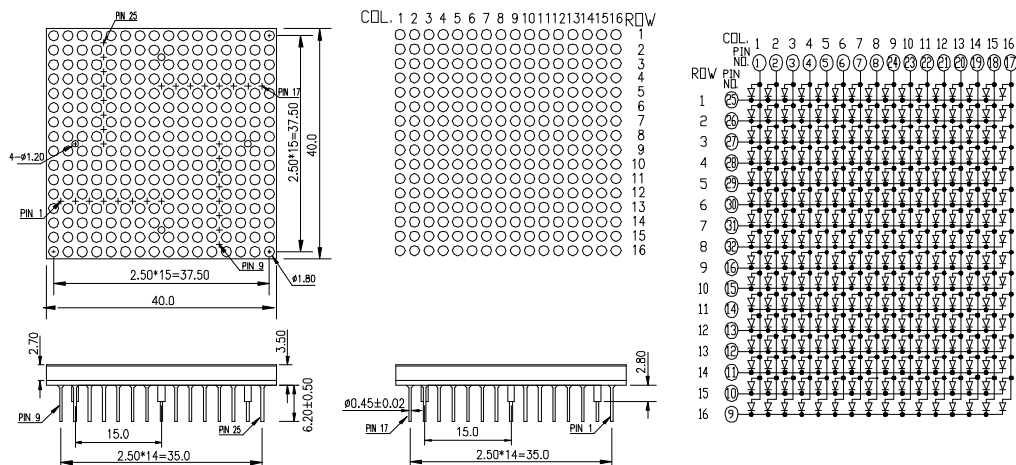
### Features

- (16x16)  $\varnothing$  1.80mm dot matrix
- Row 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	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>	13500	15524	17549	ucd	I <sub>F</sub> =10mA	R
Luminous Intensity	I <sub>v</sub>	17550	21937	26325	ucd	I <sub>F</sub> =10mA	S
Luminous Intensity	I <sub>v</sub>	26326	32907	39489	ucd	I <sub>F</sub> =10mA	T
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-D1516BMG-B

## Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-D1516BMG-B	AlGaInP	Ultra-green	Black	

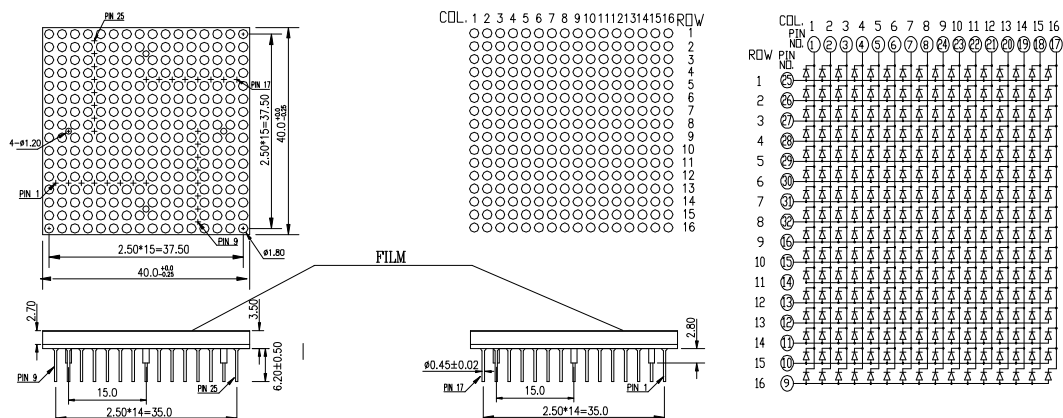
### Features

- (16x16)  $\phi$  1.80mm 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:  $\pm 0.25$  ; 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 (1/16 Duty Cycle, 1ms Pulse Width)	60	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>		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	

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

# TOM-D1616AMR-B

## Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-D1616AMR-B	AlGaInP	Ultra red	Black	

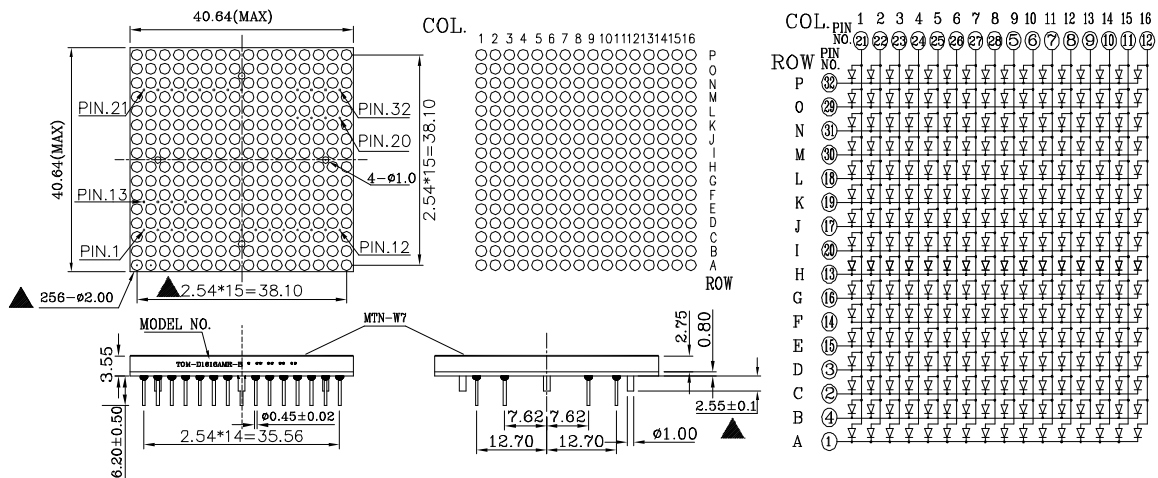
### Features

- (16x16)  $\varnothing$  2.0mm dot matrix
- Row 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	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>		630		nm	I <sub>F</sub> =20mA	
Spectral Line Half-Width	△λ		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-D2516AME-B

## Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-D2516AME-B	AlGaInP	Ultra orange	Black	

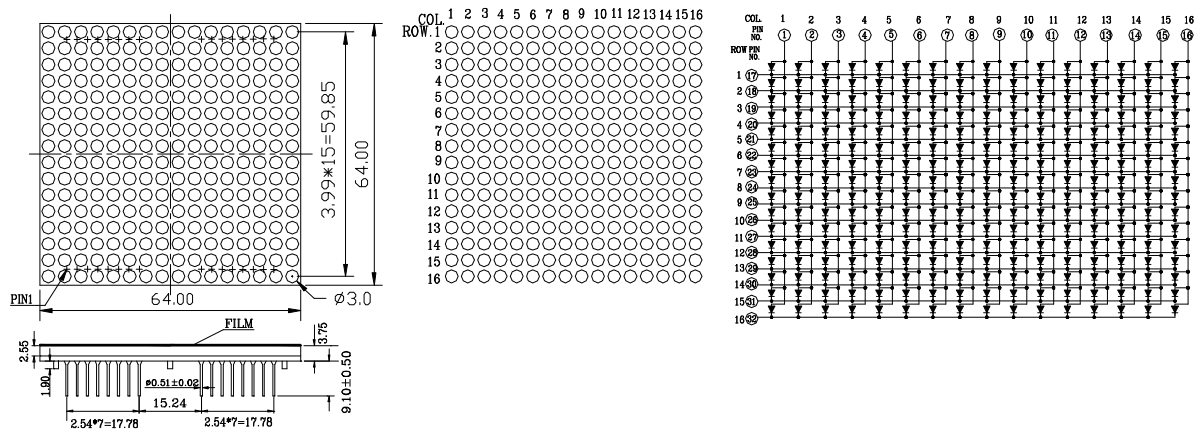
### Features

- (16x16)  $\phi$  3.0mm dot matrix
- Row 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	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>	39490	49362	59235	ucd	I <sub>F</sub> =10mA	U
Luminous Intensity	I <sub>v</sub>	59236	74045	88854	ucd	I <sub>F</sub> =10mA	V
Luminous Intensity	I <sub>v</sub>	88855	111069	133283	ucd	I <sub>F</sub> =10mA	W
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	

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



# TOM-D2516AMRMG-B

## Dot Matrix Display LED

Part Number	Chip		Face Color	Segment Color
	Material	Source Color		
TOM-D2516AMRMG-B	AlGaInP	Ultra-Red Ultra-green	Black	

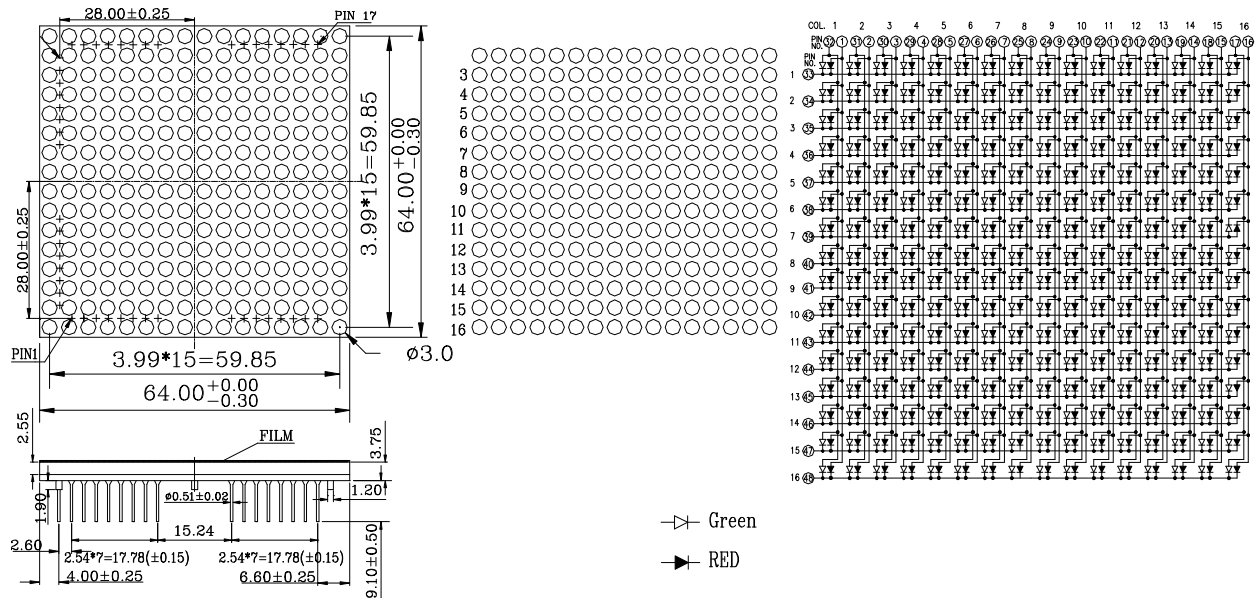
### Features

- (16x16)  $\phi$  3.0mm dot matrix
- Row 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) 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 Per Dot	I <sub>v</sub>		21937		ucd	I <sub>F</sub> =10mA	
Dominant Wavelength	λ <sub>d</sub> MR		640		nm	I <sub>F</sub> =20mA	
Dominant Wavelength	λ <sub>d</sub> MR		640		nm	I <sub>F</sub> =20mA	
Spectral Line Half-Width	Δλ		15		nm	I <sub>F</sub> =20mA	
Forward Voltage Per Dice	V <sub>F</sub>	1.8	2.0	2.3	V	I <sub>F</sub> =20mA	
Reverse Current Per Dice	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.