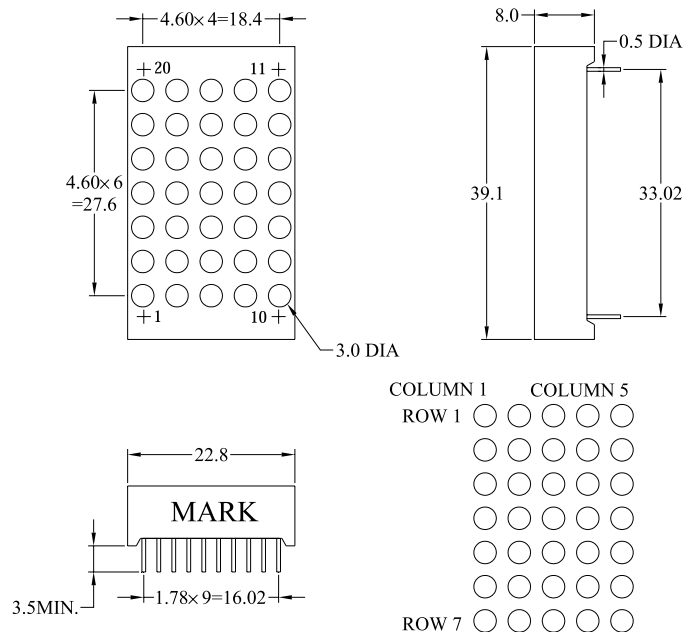


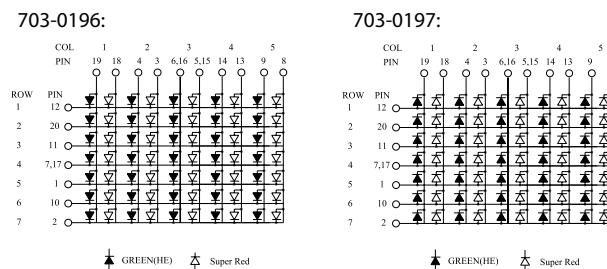
# 1.2" (30.42mm) 5 x 7 Dot Matrix Display



## Package Dimensions:



## Internal Circuit Diagram:



\* All dimensions are in mm  
 \* Tolerance: ±0.25mm unless otherwise noted  
 \* The slope of any PIN may be ±5.0° max

Ant Part No.	LED Chip		Face Colour	
	Material	Emitting Colour	Surface	Segments
703-0196	R	AlGaInP / GaP	Grey	White
	G	AlGaInP / GaP	Grey	White
703-0197	R	AlGaInP / GaP	Grey	White
	G	AlGaInP / GaP	Grey	White

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## Absolute Maximum Ratings at Ta=25°C:

Parameter	Symbol	Rating	Unit	
Power Dissipation - Per Dot	P <sub>D</sub>	R	782	mW
		G	72	
Pulse Current (1/10 Duty Cycle, 0.1ms Pulse Width) - Per Chip	I <sub>FP</sub>	100	mA	
Forward Current - Per Chip	I <sub>F</sub>	30	mA	
Reverse (Leakage) Current - Per Chip	I <sub>r</sub>	100	uA	
Reverse Voltage - Per Chip	V <sub>R</sub>	5	V	
Operating Temperature Range	T <sub>opr.</sub>	-25 to +85	°C	
Storage Temperature Range	T <sub>stg.</sub>	-40 to +100	°C	
Soldering Temperature	T <sub>sol.</sub>	Dip Soldering: 260°C for 5sec. Hand Soldering: 350°C for 3sec.		

## Electrical & Optical Characteristics:

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit	
Luminous Intensity (Per Dot)	I <sub>v</sub>	R	I <sub>f</sub> =10mA/Dot	15.01	30.0	mcd	
		G	I <sub>f</sub> =10mA/Dot	19.51	40.5		
Forward Current	V <sub>f</sub>	R	I <sub>f</sub> =20mA/Dot		1.9	2.4	V
		G	I <sub>f</sub> =20mA/Dot		1.9	2.4	
Peak Wavelength	λ <sub>p</sub>	R	I <sub>f</sub> =20mA/Dot		650	nm	
		G	I <sub>f</sub> =20mA/Dot		573		
Dominant Wavelength	λ <sub>d</sub>	R	I <sub>f</sub> =20mA/Dot		639	nm	
		G	I <sub>f</sub> =20mA/Dot		570		
Reverse Current - Per Chip (Leakage Current - Per Chip)	I <sub>r</sub>	R	V <sub>r</sub> =5V			100	μA
		G	V <sub>r</sub> =5V			100	
Spectrum Line Halfwidth	Δλ	R	I <sub>f</sub> =20mA/Dot		20	nm	
		G	I <sub>f</sub> =20mA/Dot		20		
Response Time	T			250		ns	

Note: Customer's special requirements are also welcome

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# 1.2" (30.42mm) 5 x 7 Dot Matrix Display



## Typical Electrical & Optical Characteristics Curves: (25°C Ambient temperature unless otherwise noted)

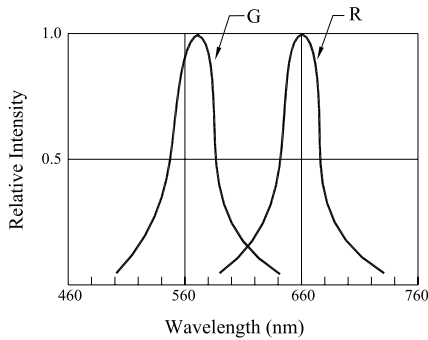


Fig.1 RELATIVE INTENSITY VS. WAVELENGTH

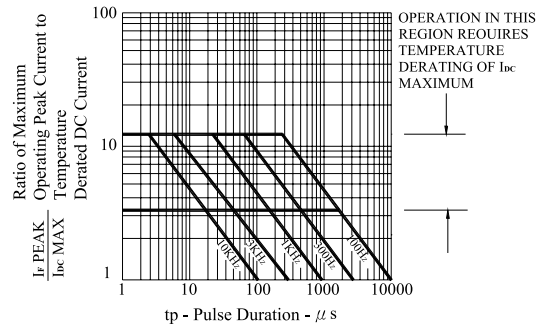


Fig.2 MAXIMUM TOLERABLE PEAK CURRENT VS. PULSE DURATION

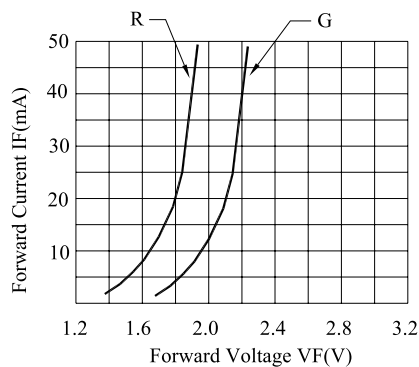


Fig.3 FORWARD CURRENT VS. FORWARD VOLTAGE PER CHIP

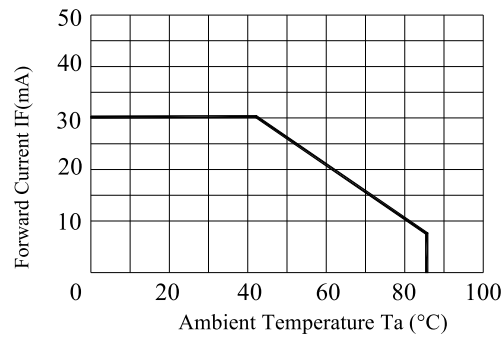


Fig.4 FORWARD CURRENT VS. DERATING CURVE

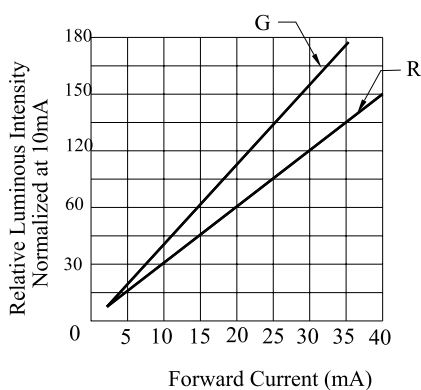


Fig.5 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

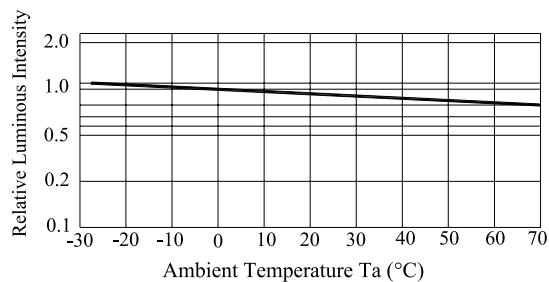


Fig.6 LUMINOUS INTENSITY VS. AMBIENT TEMPERATURE

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