



**RoHS  
Compliant**

## 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	μA	
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		
Soldering Temperature	T <sub>sol.</sub>	Dip Soldering: 260°C for 5sec. Hand Soldering: 350°C for 3sec.		

## Electrical and Optical Characteristics

Parameter	Symbol	Condition	Value			Unit
			Min.	Typ.	Max.	
Luminous Intensity (Per Dot)	I <sub>v</sub>	R	I <sub>f</sub> =10mA/Dot	15.01	30	-
		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
		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	-
		G	I <sub>f</sub> =20mA/Dot	-	573	-
Dominant Wavelength	λ <sub>d</sub>	R	I <sub>f</sub> =20mA/Dot	-	639	-
		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
		G	V <sub>r</sub> =5V	-	-	100
Spectrum Line Halfwidth	Δλ	R	I <sub>f</sub> =20mA/Dot	-	20	-
		G	I <sub>f</sub> =20mA/Dot	-	20	-
Response Time	T	-	-	250	-	ns

## Typical Electrical & Optical Characteristics Curves

(25°C Ambient temperature unless otherwise noted)

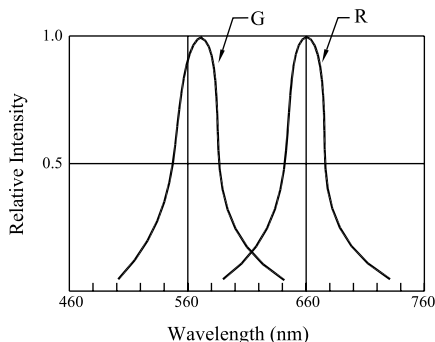


Fig.1 RELATIVE INTENSITY VS. WAVELENGTH

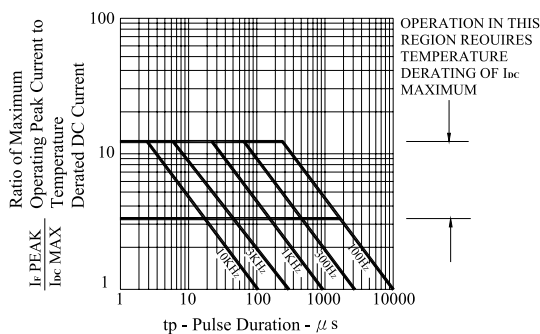


Fig.2 MAXIMUM TOLERABLE PEAK CURRENT VS. PULSE DURATION

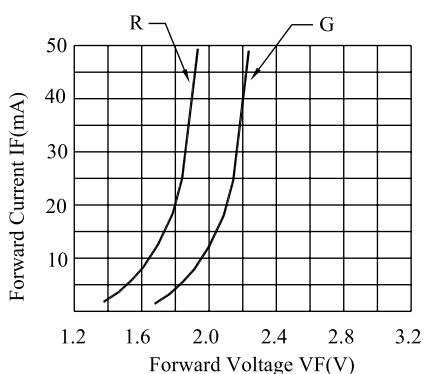


Fig.3 FORWARD CURRENT VS. FORWARD VOLTAGE PER CHIP

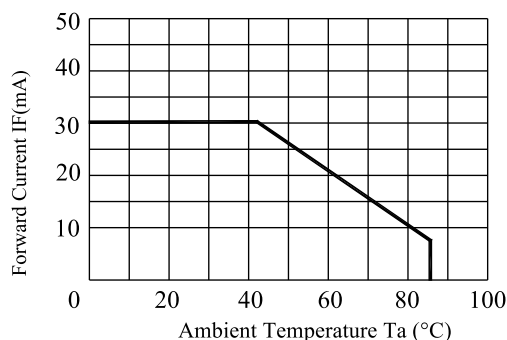


Fig.4 FORWARD CURRENT VS. DERATING CURVE

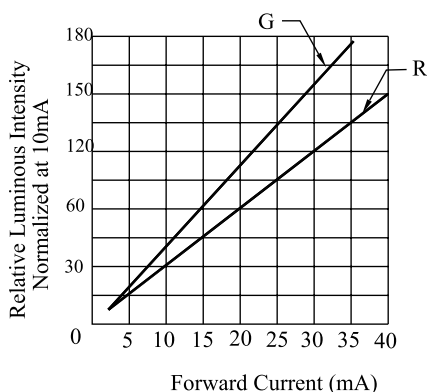


Fig.5 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

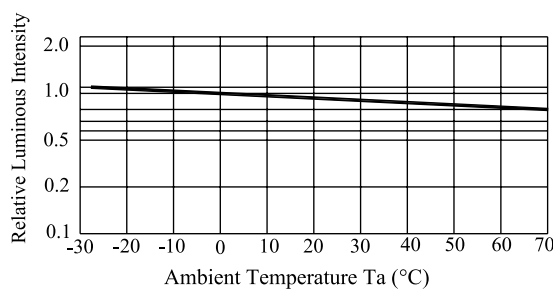
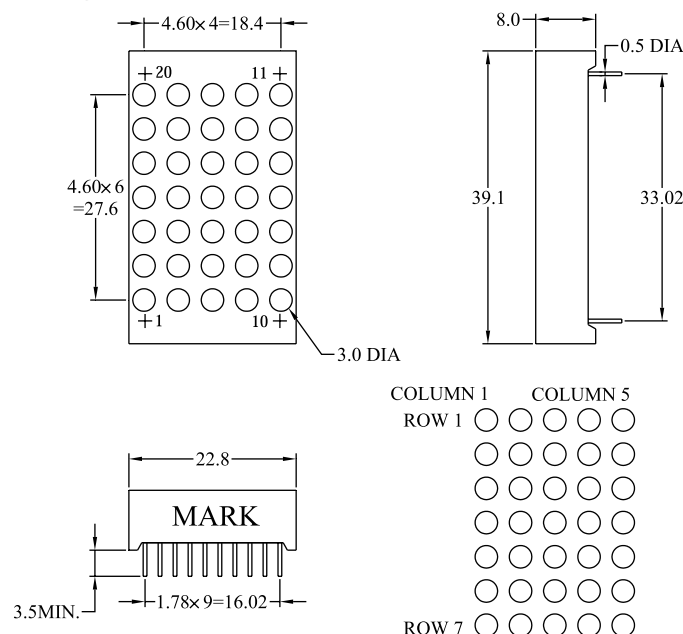


Fig.6 LUMINOUS INTENSITY VS. AMBIENT TEMPERATURE

# LED Dot Matrix Display

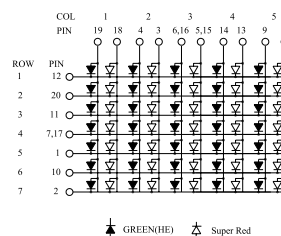
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## Package Dimensions

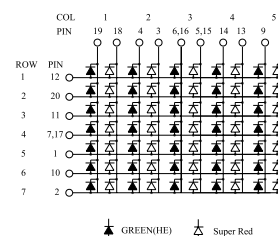


## Internal Circuit Diagram

703-0196:



703-0197:



## Part Number Table

LED Chip		Face Colour		Part Number	
Material	Emitting Colour	Surface	Segments		
AlGaInP / GaP	Deep red	Grey	White	R	703-0196
	Yellow green			G	
	Deep red			R	703-0197
	Yellow green			G	

Dimensions : Millimetres

Tolerance:  $\pm 0.25$ mm

The slope of any PIN may be  $\pm 5^\circ$  max.

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