DOT MATRAIX LED DISPLAY

JZM15880AGR-BC(Ⅱ)

DATA SHEET

DOCUMENT NO.: WI-RD-LDS-15880AGR-BC(ll)

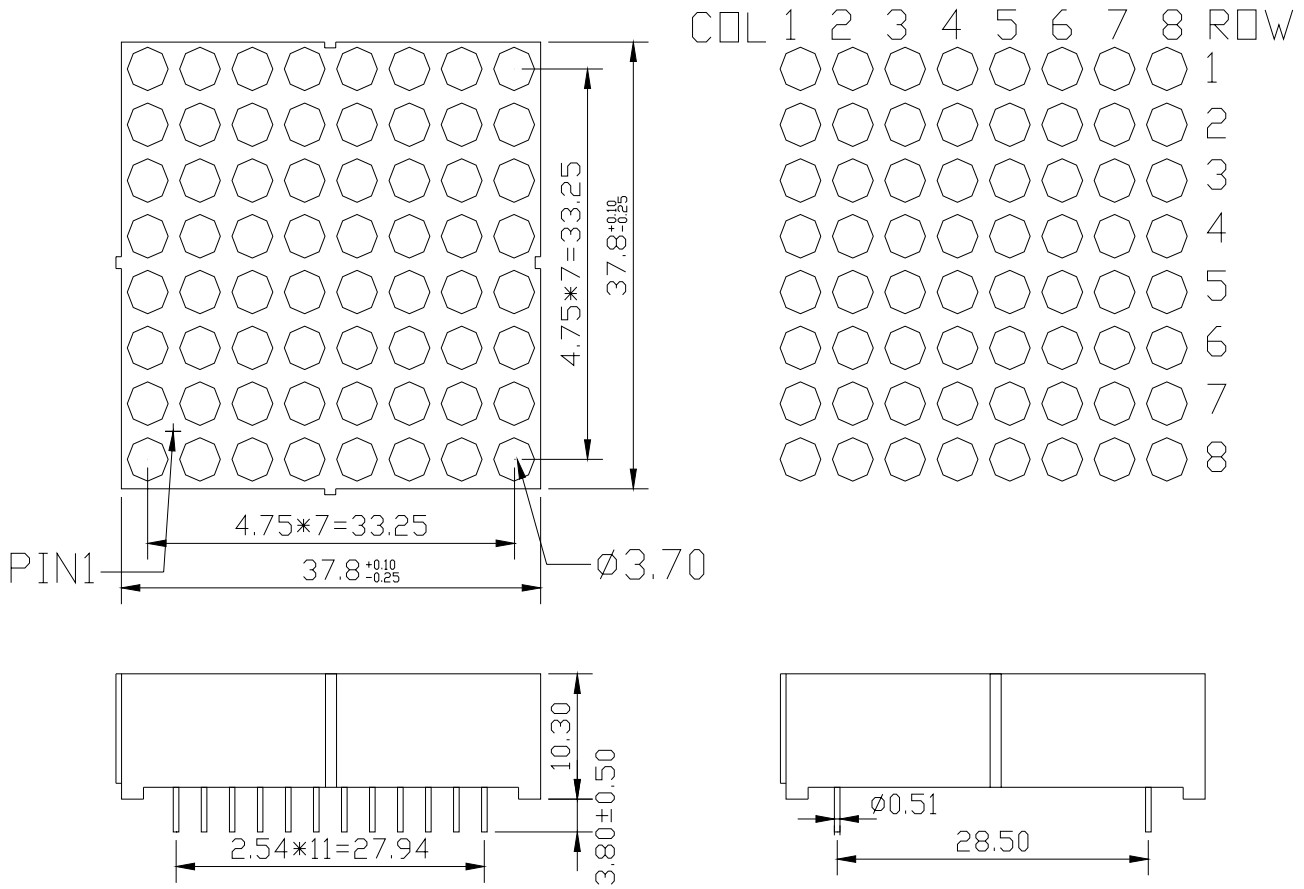
RELEASE DATE: 2007-01-12

VERSION: A/0

RD No.: JZD20070115001

PART NO.: JZM15880AGR-BC(Ⅱ)

Package Dimensions



Notes:

1. All dimension are in millimeters and(Inch)tolerance is±0.25mm unless otherwise noted.
2. Specifications are subject to change without notice.

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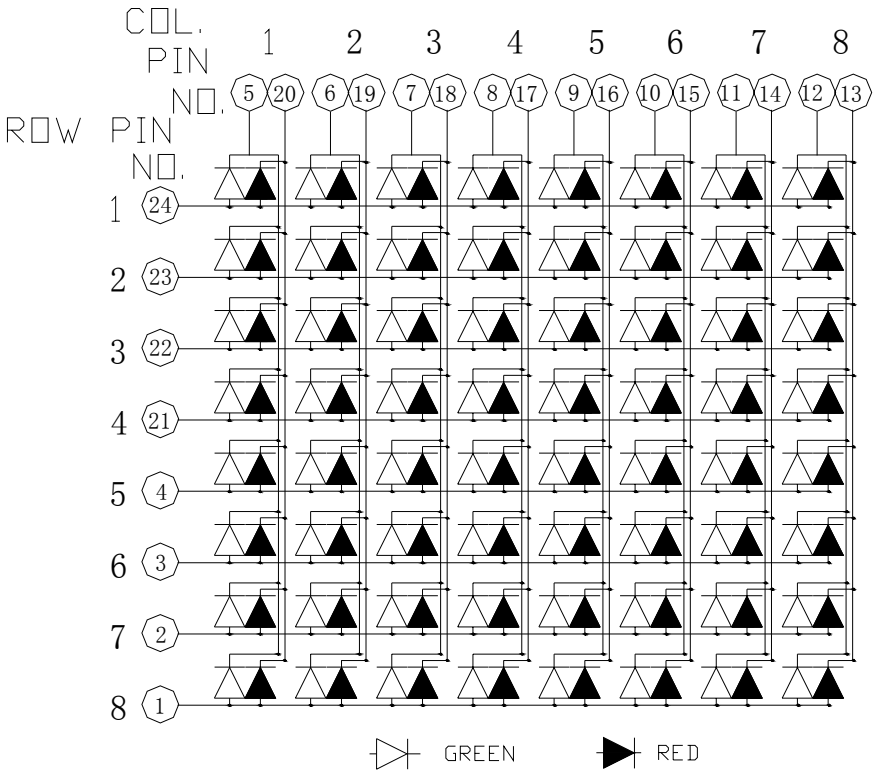
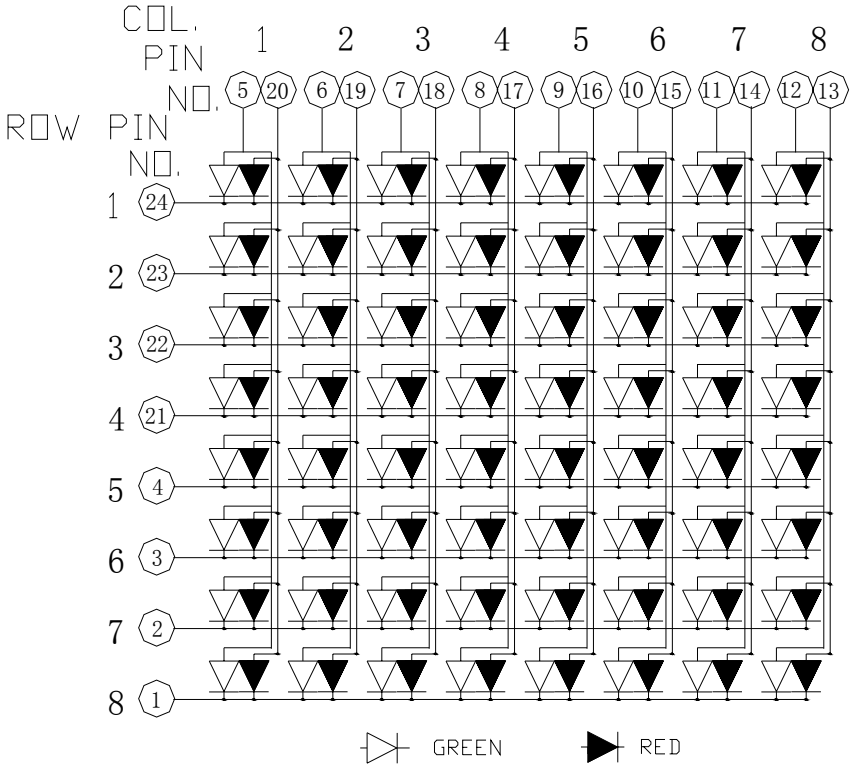
Internal Circuit Diagram

JZM15880AGR-BC(Ⅱ)



JZM15880BGR-BC(Ⅱ)



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Absolute Maximum Rating at=Ta=25℃

Parameter	Symbol	Ratings	UNIT
		SGM	
Forward Current Per Chip	IF	30	mA
Peak Forward Current Per Chip*1	I_{FP}	100	mA
Power Dissipation Per Chip	PD	100	mW
Reverse Current Per Any Chip	Ir	50	uA
Electrostatic Discharge*2	ESD	1000	V
Operating Temperature	Topr	-25~+85	℃
Storage Temperature	Tstg	-25~+85	℃
Solder Temperature 1/16 Inch Below Seating Plane For 3 Seconds At 260℃			
*1:Duty 1/10,0.1ms Pulse With *2:Static Electricity or power surge will damage the LED. Use of a conductive wrist band or anti-electrosatic glove is recommended when handing these LED. All devices, equipment and machinery must be properly grounded.			

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Part selection And Application Information(Ratings at 25℃)

PART NO.	COLOR（EPOXY/SURFACE）	CHIP		Common cathode or anode	WD (nm)	Electrical				IV-M
		Material	Emitted			Vf(v)		Iv(mcd)		
						Typ.	Max.	Min.	Typ.	
JZM15880AGR-BC(Ⅱ)	WHITE DIFFUSE/BLACK	GaP/GaP	GREEN/RED	Common Anode	572/643	2.0/1.9	2.4/2.4	12.5/11	14.5/11.2	1：1.1
JZM15880BGR-BC(Ⅱ)				Common cathode						

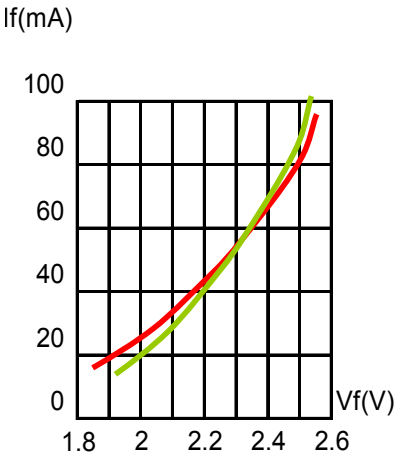
Note:1.The forward voltage data did not including±.01V testing tolerance.

2.The luminous intensity data did not including±15% testing tolerance.

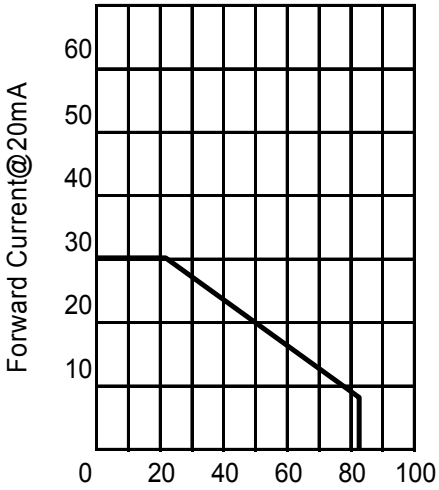
Test Condition For Each Parameter

Parameter	Symbol	Unit	Test Condition
Forward Voltage Per Chip	Vf	volt	If=20mA
Luminous Intensity Per Chip	Iv	mcd	If=20mA
Peak Wavelength	WP	nm	If=20mA
Dominant Wavelength	WD	nm	If=20mA
Spectral Line Half-Width	▲W	nm	If=20mA
Reverse Current Any Chip	Ir	μA	If=20mA
Luminous Intensity Matching Ratio	IV-M		

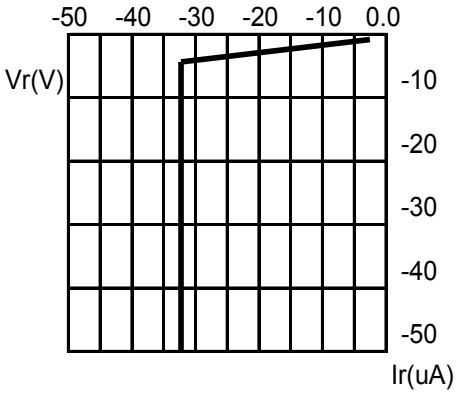
Typical Optical-Electronic Characteristic Curves



CURRENT VS. FORWARD VOLTAGE.



AMBIENT TEMPERATURE(℃)



CURRENT VS. REVERSE VOLTAGE.

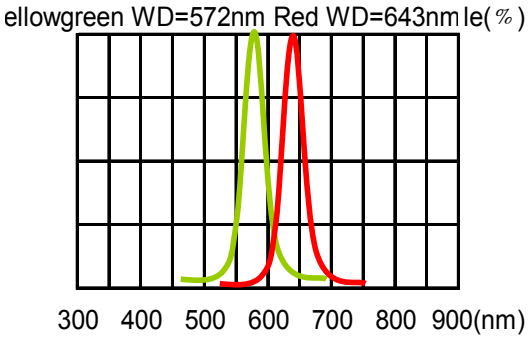
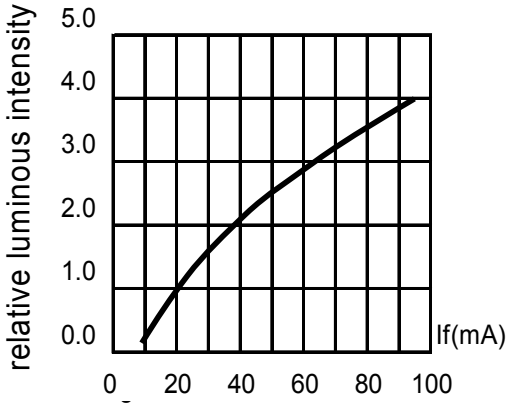


Fig.4 RELATIVE LUMINOUS INTENSITY VS. WAVELENGTH.



INTENSITY VS. FORWARD CURRENT.

Soldering Condition (Pb-Free)

1. Iron:

   Soldering Iron: 30W Max

   Temperature 350℃ Max

   Soldering Time: 3 Seconds Max (One time only)

   Distance: Solder Temperature 1/16Inch Below Seating Plane

   For 3 Seconds At 260℃

2. Wave Soldering Profile

   Dip Soldering

   Preheat:120℃ Max

   Preheat time:60 seconds Max

   Ramp-up

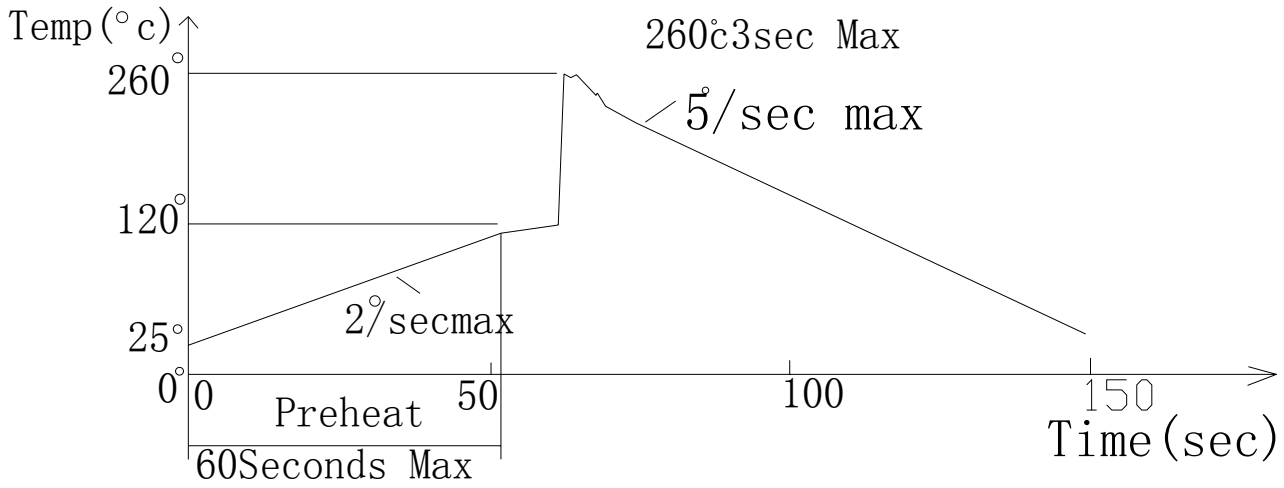
   2℃/sec(max)

   Ramp-Down:-5℃/sec(max)

   Solder Bath:260℃ Max

   Dipping Time:3 seconds Max

   Distance:Solder Temperature 1/16Inch Below Seating Plane for 3 Seconds At 260℃



Note:1.Wave solder should not be made more than one time.

2.You can just only select one of the soldering conditions as above.

Reliability Test:

Test Item	Standard Test Method	Test Condition	Description
Operating Life Test	JIS C7021:B-1 MIL-STD-750:1026 MIL-STD-883:1005	1. Under Room Temperature 2. If=10 mA 3. t=1000hrs(-24hrs,+72hrs)	This test is conducted for the purpose of deteming the resistance of a part in electrical and themal stressed.
High Temperature Storage Test	JIS C 7021:B-10 MIL-STD-883:1008	1. Ta=105℃±5℃ 2. t=1000hrs(-24hrs,+72hrs)	The purpose of this is the resistance of the device which is laid under condition of high temperature for hours.
Low Temperature Storage Test	JIS C 7021:B-12	1. Ta=-40℃±5℃ 2. t=1000hrs(-24hrs,+72hrs)	The purpose of this is the resistance of the device which is laid under condition of low temperature for hours.
High Temperature High Humidity Test	JIS C 7021:B-11 MIL-STD-202:103B	1. Ta=65℃±5℃ 2. RH=90%~95% 3. Tt=240hrs±2hrs	The purpose of this id the resistance of the device which is laid under condition of low temperature for hours.
Thermal Shock Test	MIL-STD-202:107D MIL-STD-750:1051 MIL-STD-883:1011	1. Ta=105℃±5℃&-40℃±5℃ (10min)(10min)	The purpose of this is the resistance of the device to sudden extreme changes in high and low temperature.
Solder Resistance Test	JIS C 7021:A-1 MIL-STD-202:210A MIL-STD-750:2031	1.T.Sol=260℃±5℃ 2.Dwell time=10±1sec.	This test intented to determine the thermal characteristic resistance of the device to sudden exposures at ex treme changes in temperature when soldering the lead wire.
Solderability Test	JIS C 7021:A-2 MIL-STD-202:208D MIL-STD-750:2026 MIL-STD-883:2003	1.T.Sol=230℃±5℃ 2.Dwell time=5±1sec.	This test intended to see soldering well performed or not.

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