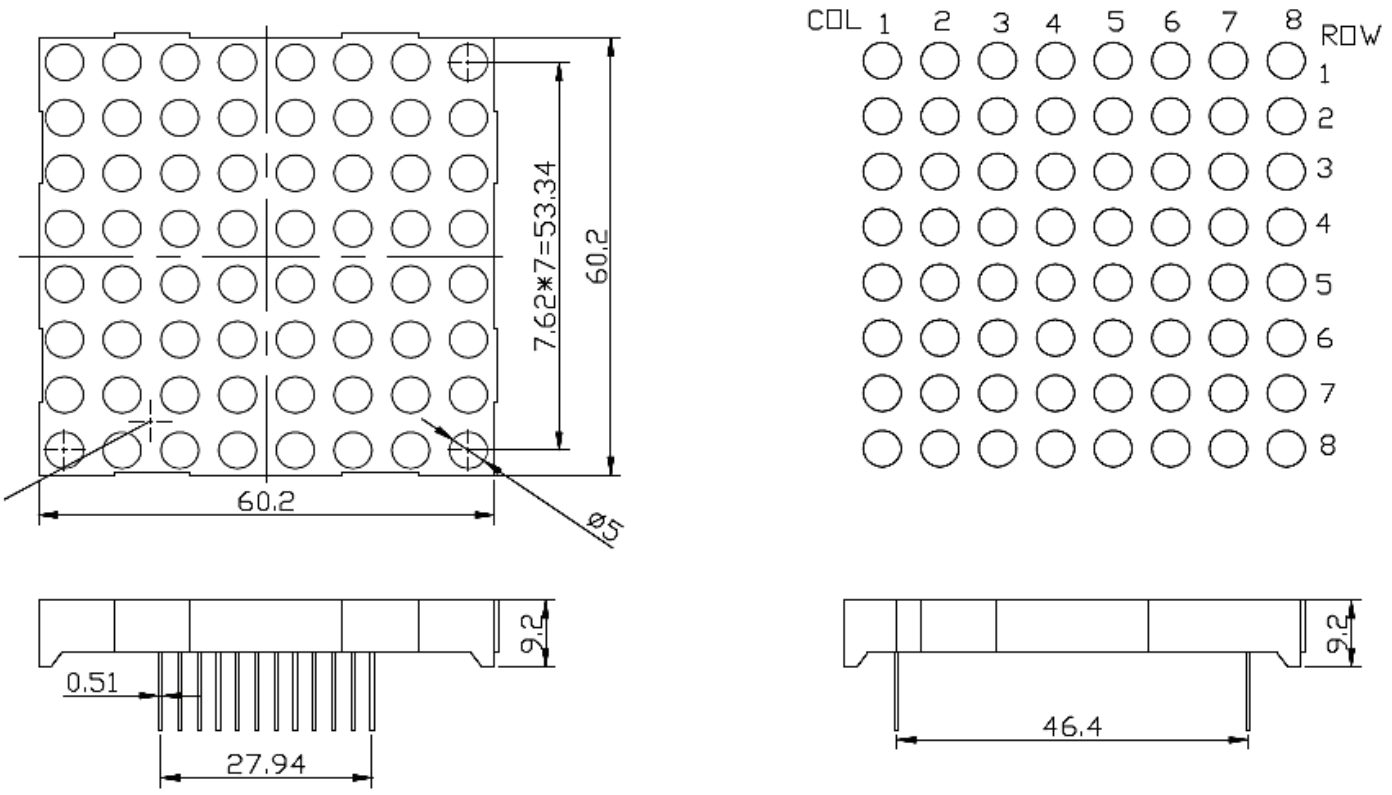
SPECIFICATIONS CDMA8823R2G2W

OUTLINES DIMENSIONS



Notes:
1. All Dimensions are in millimeters (inches).
2. Tolerance is ± 0.25mm (0.01”) unless otherwise noted.
3. Specifications are subject to change without notice.

Part Number	Chip Material	Color of Emission	Lens Type	Description
CDMA8823R2G2W	InGaAlP	Red	White Segment/ Grey Face	Row Anode
	InGaAlP	Green		

ABSOLUTE MAXIMUM RATINGS - RED (InGaAlP) (TA=25°C)

Parameter	Symbol	Max Rating	Unit
Power Dissipation	P_D	50	mW
Pulse Forward Current	I_{FP}	80	mA
Continuous Forward Current	I_F	20	mA
Reverse Voltage	V_R	5	V
Operating Temperature Range	T_{OPR}	-25~+85	°C
Storage Temperature Range	T_{STG}	-25~+85	°C
I_{FP} = Pulse Width ≤ 10 ms, Duty Ratio ≤1/10. Soldering Condition: 260 °C/ 3sec			

OPTICAL-ELECTRICAL CHARACTERISTICS - RED (InGaAlP) (TA=25°C)

Parameter	Symbol	Test Condition	Value			Unit
			Min	Typ	Max	
Luminous Intensity	Iv	I_F = 10mA	80	100	-	mcd
Forward Voltage	V_F	I_F = 10mA	-	2.0	2.4	V
Reverse Leakage Current	I_R	V_R = 5V	-	-	50	μA
Peak Wavelength	λ_P	I_F = 10mA	629	-	635	nm
Dominant Wavelength	λ_D	I_F = 10mA	-	630	-	nm
Spectral Radiation Bandwidth	$\Delta\lambda$	I_F = 10mA	-	20	-	nm

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ABSOLUTE MAXIMUM RATINGS - GREEN (InGaAlP) (TA=25°C)

Parameter	Symbol	Max Rating	Unit
Power Dissipation	P_D	50	mW
Pulse Forward Current	I_{FP}	80	mA
Continuous Forward Current	I_F	20	mA
Reverse Voltage	V_R	5	V
Operating Temperature Range	T_{OPR}	-20~+85	°C
Storage Temperature Range	T_{STG}	-20~+100	°C
I_{FP} = Pulse Width ≤ 10 ms, Duty Ratio ≤1/10. Soldering Condition: 260 °C/ 5sec			

OPTICAL-ELECTRICAL CHARACTERISTICS - GREEN (InGaAlP) (TA=25°C)

Parameter	Symbol	Test Condition	Value			Unit
			Min	Typ	Max	
Luminous Intensity	I_V	I_F = 10mA	30	40	-	mcd
Forward Voltage	V_F	I_F = 10mA	-	2.0	2.4	V
Reverse Leakage Current	I_R	V_R = 5V	-	-	50	μA
Peak Wavelength	λ_P	I_F = 10mA	568	-	572	nm
Dominant Wavelength	λ_D	I_F = 10mA	-	573	-	nm
Spectral Radiation Bandwidth	$\Delta\lambda$	I_F = 10mA	-	20	-	nm

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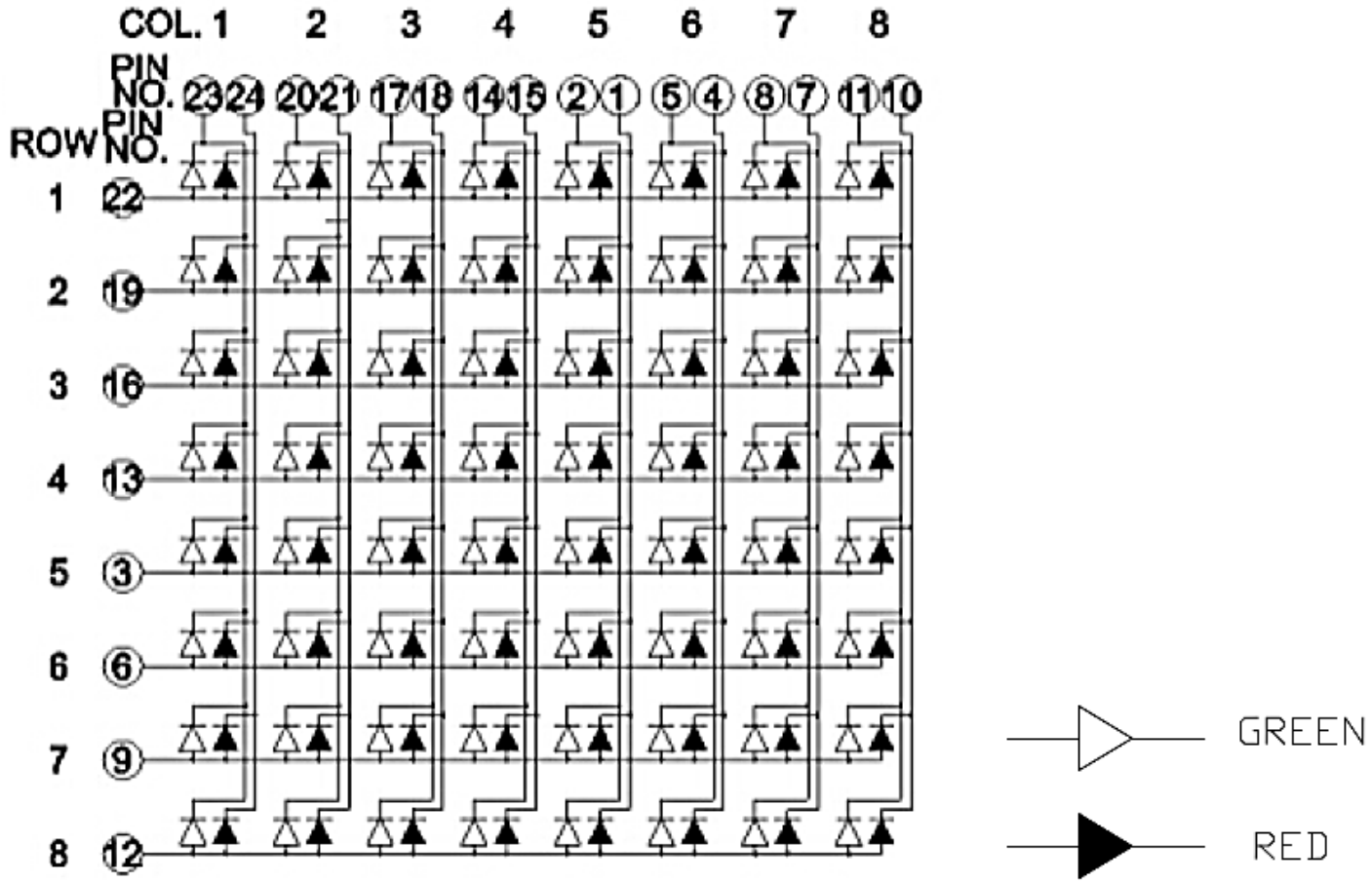
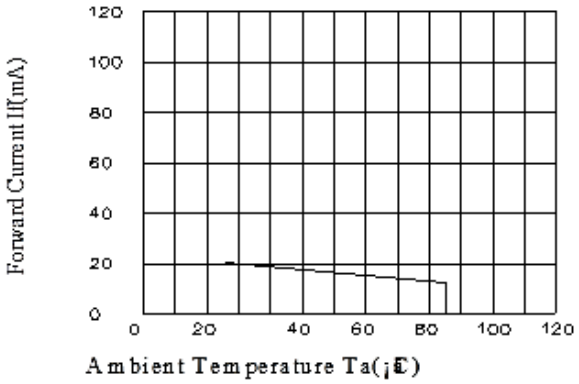
INTERNAL CIRCUIT DIAGRAM

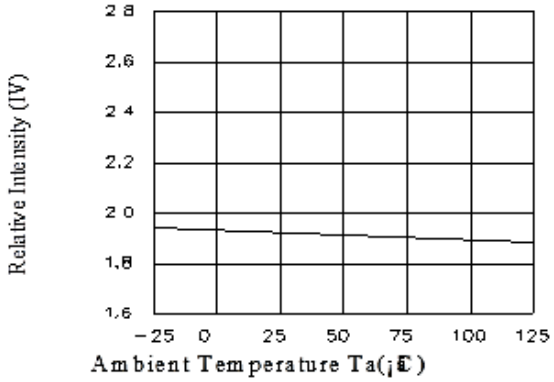


OPTICAL CHARACTERISTIC CURVES - RED

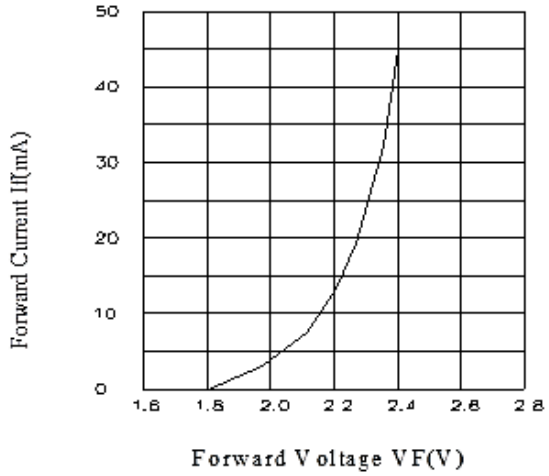
Forward Current VS. Ambient Temperrature



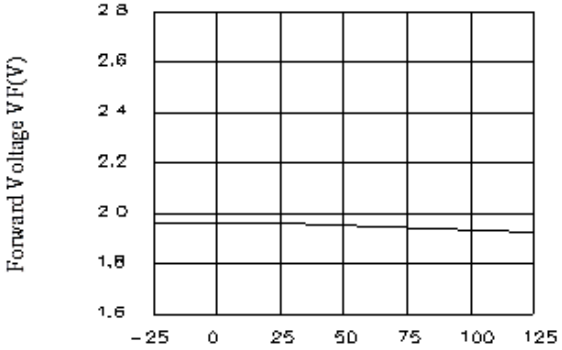
Relative Intensity VS. Ambient Temperatur



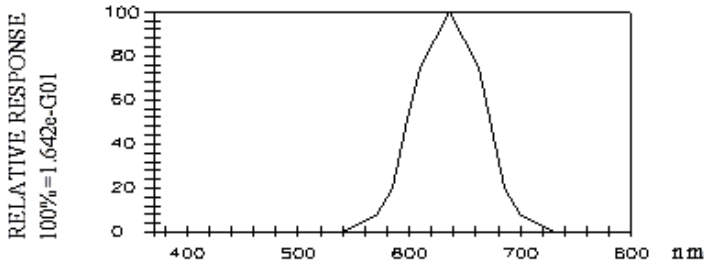
Forward Current VS.Forward Voltage



Forward Voltage VS. Ambient Temperature



Luminous Spertrum(Ta=25¡Æ) SPECTRAL RADIANCE



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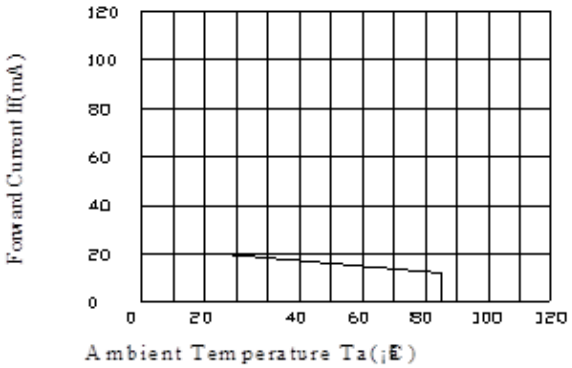
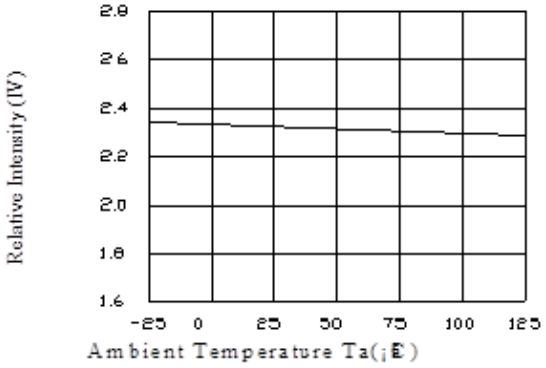
OPTICAL CHARACTERISTIC CURVES - GREEN

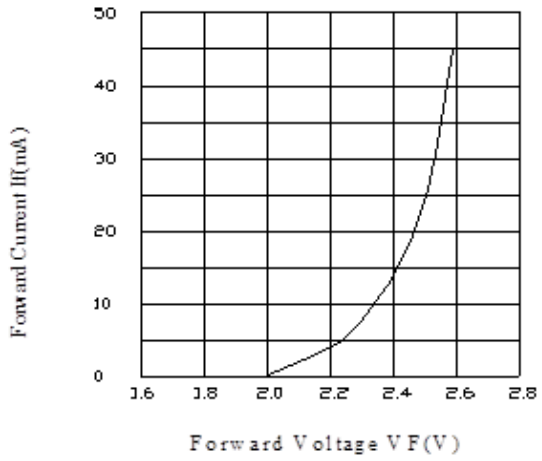
Forward Current VS. Ambient Temperrature



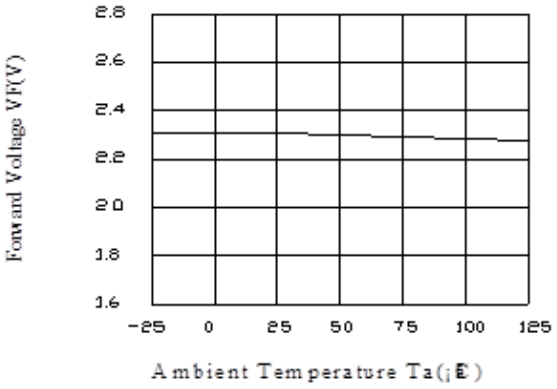
Relative Intensity VS. Ambient Temperature



Forward Current VS.Forward Voltage

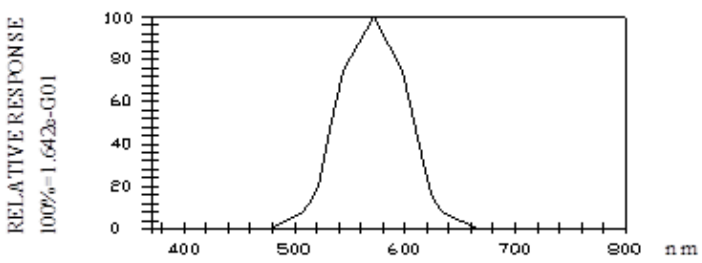


Forward Voltage VS. Ambient Temperature



Luminous Spertrum(Ta=25¡Æ)

SPECTRAL RADIANCE



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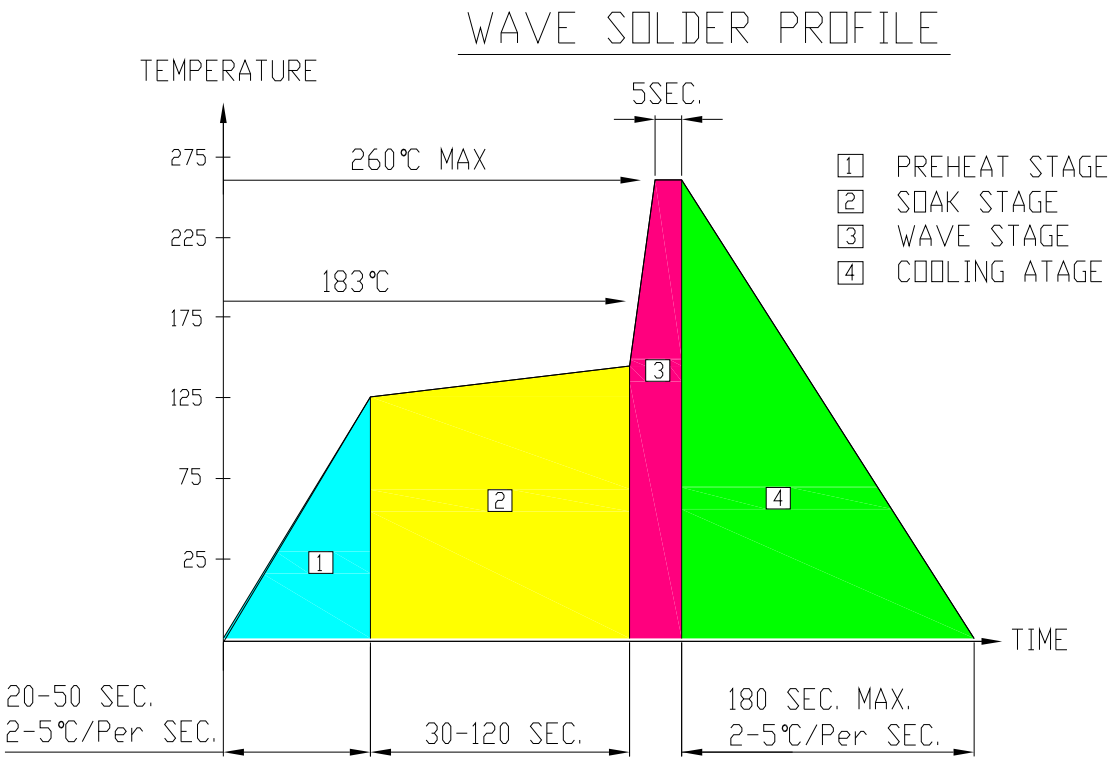
RECOMMENDED SOLDERING PROFILE

RECOMMEND SOLDERING PROFILE



SOLDERING IRON

Basic spec is ≦4 sec when 260°C. If temperature is higher, time should be shorter (+10°C→1 sec). Power dissipation of Iron should be smaller than 15W, and temperature should be controllable. Surface temperature of the device should be under 230°C.

REWORK

Customer must finish rework within ≦4 sec under 245℃.