

Approved	Checked	Designed	DEVELOPMENT SPECIFICATION TENTATIVE P/N: LN J 1 2 3 W 8 P R Z				
		<i>h.w.</i>					

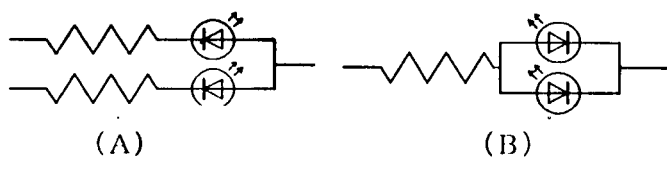
T Y P E	Green(GaP)/Red(GaAlAs) Bi-color Light Emitting Diode						
A P P L I C A T I O N	Indicators						
M A T E R I A L	Green: GaP, Red: GaAlAs						
O U T L I N E	Attached						
A B S O L U T E M A X I M U M R A T I N G S	※1 P (G)	※2 I <sub>FP</sub> (R)	※3 I <sub>FK</sub> (G)	V <sub>R</sub> (R)	Topr	Tstg	
	60	50	60	60	20	20	4 3
	mW		mA		mA		V
					-30~+85		-40~+100
					°C		°C
C O N D I T I O N	T <sub>a</sub> = 25 ± 3 °C						

Test Specification

Item	Symbol	Condition	Typ.	Limit		Unit
				Min	Max	
<b>Green</b>						
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> = 10 mA	2.03		2.6	V
Reverse Leakage Current	I <sub>R</sub>	V <sub>R</sub> = 4 V			10	μA
Luminous Intensity※7	I <sub>O</sub>	I <sub>F</sub> = 10 mA · DC	5.0	1.8		mcd
Peak Emission Wavelength	λ <sub>p</sub>	I <sub>F</sub> = 10 mA · DC	565			nm
Spectral Line Half Width	Δλ	I <sub>F</sub> = 10 mA · DC	30			nm
<b>Red</b>						
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> = 10 mA	1.72		2.5	V
Reverse Leakage Current	I <sub>R</sub>	V <sub>R</sub> = 3 V			100	μA
Luminous Intensity※7	I <sub>O</sub>	I <sub>F</sub> = 10 mA · DC	4.0	1.5		mcd
Peak Emission Wavelength	λ <sub>p</sub>	I <sub>F</sub> = 10 mA · DC	655			nm
Spectral Line Half Width	Δλ	I <sub>F</sub> = 10 mA · DC	20			nm

- ※1 (G) : Green (R) : Red
- ※2 The condition of I<sub>FP</sub> is duty 10 % , pulse width 1 ms.  
Please contact the Panasonic local office if you design at low current (below 1mA DC) or pulse current operation and have any questions.
- ※3 When 2 light emitted at the same time , the total current (I<sub>FP</sub> or I<sub>FK</sub>) must be I<sub>FP</sub> < 60 mA , I<sub>FK</sub> < 18 mA
- ※4 Package····Light white diffusion type.
- ※5 Soldering conditions····Refer to Handling note.
- ※6 Care should be taken that soldering is done within 3-days after opening the dry package and reel.
- ※7 Measurement tolerance is ±20%.

Circuit to operate LED

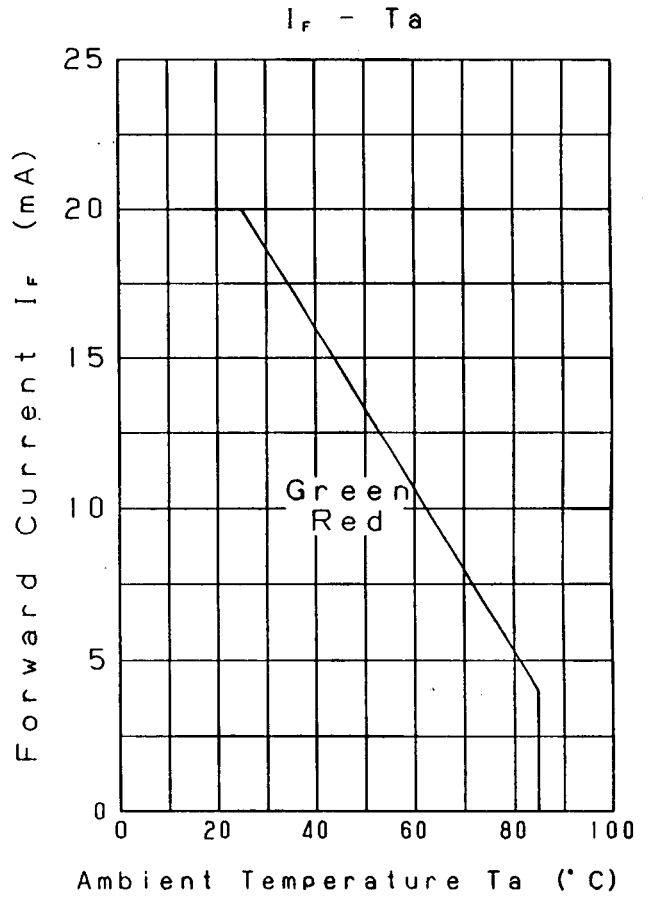
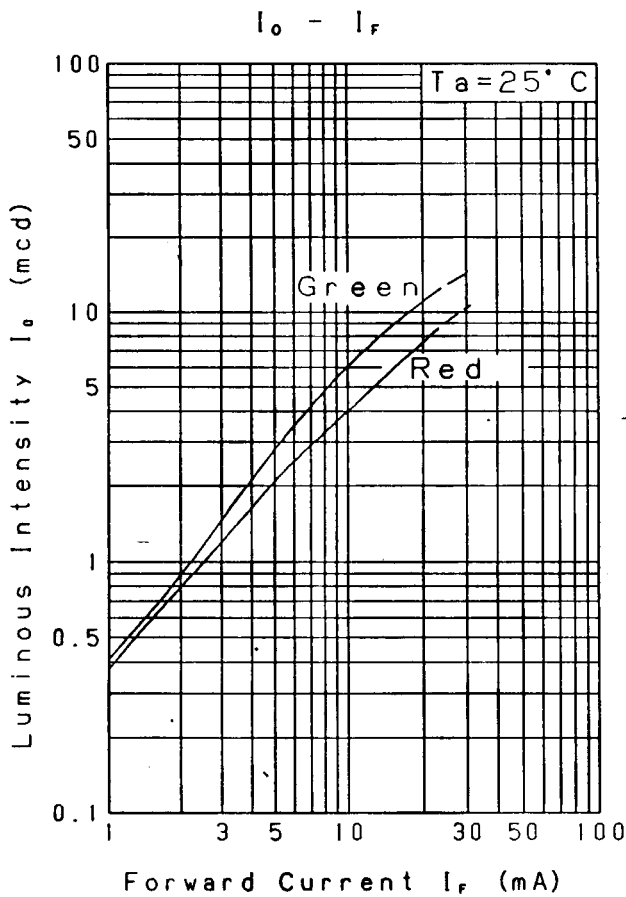
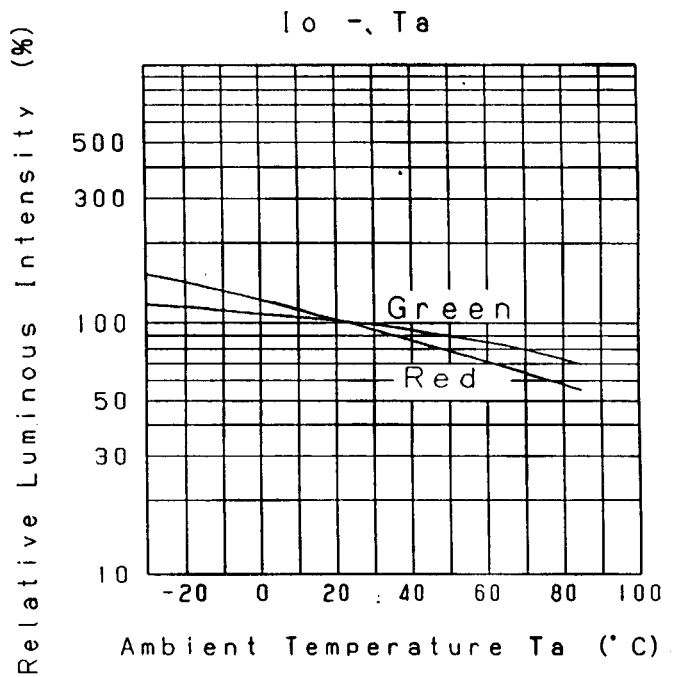
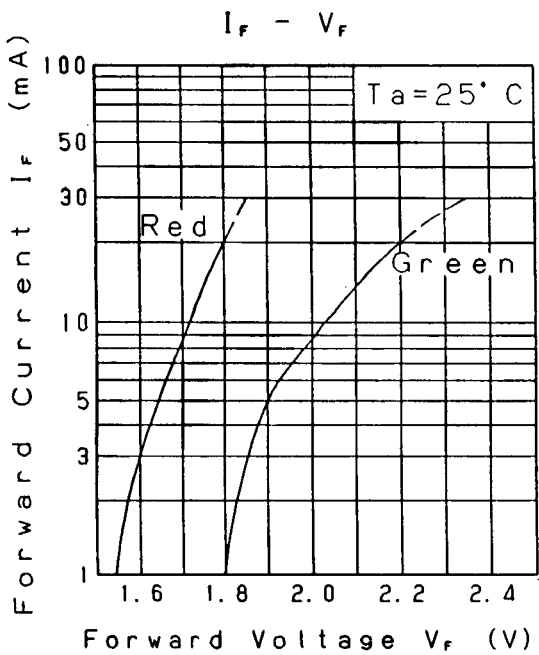


(A) Recommended circuit.  
(B) The difference of brightness between the LED could be found due to the V<sub>F</sub> characteristics of each LED.

26-Jan-2001			

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DEVELOPMENT SPECIFICATION  
TENTATIVE  
P/N: LNJI23W8PRZ

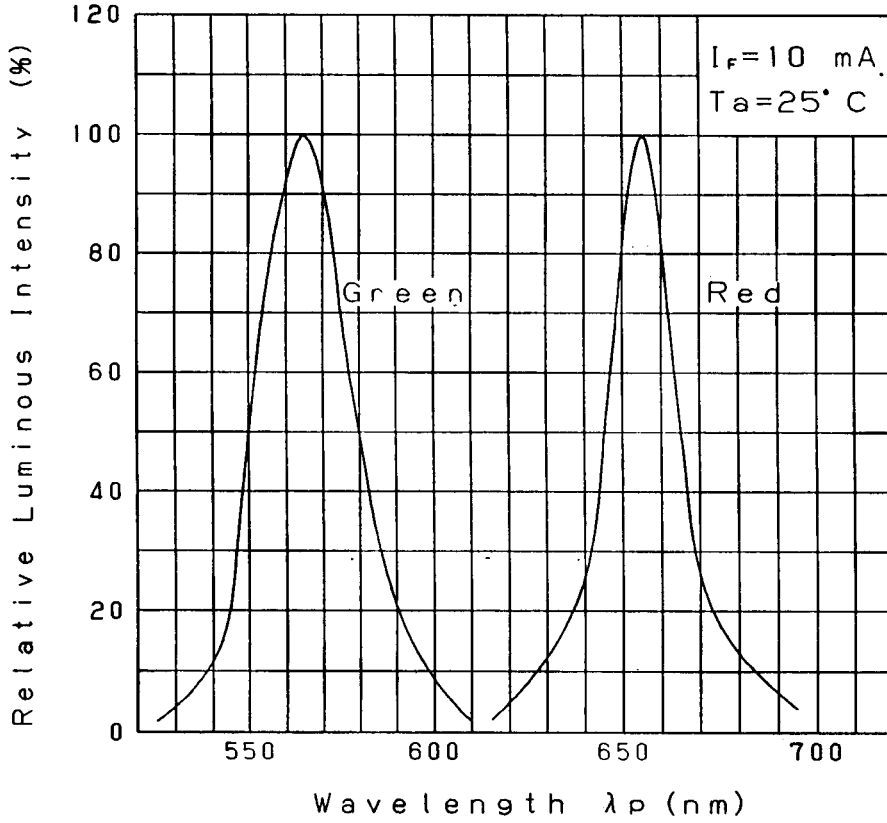


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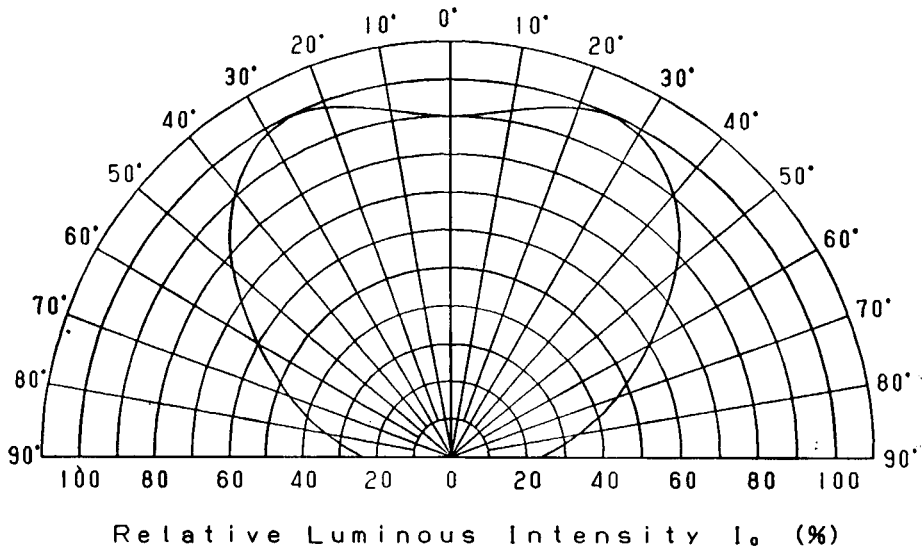
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TENTATIVE  
P/N: LNJI23W8PRz

Relative Luminous Intensity  
Wavelength Characteristics



Directive Characteristics

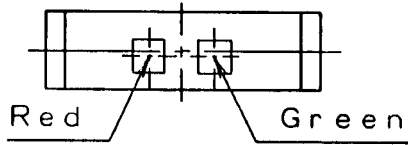


26. Jan. 2001

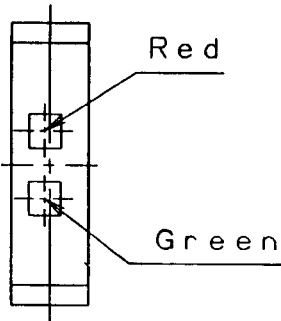
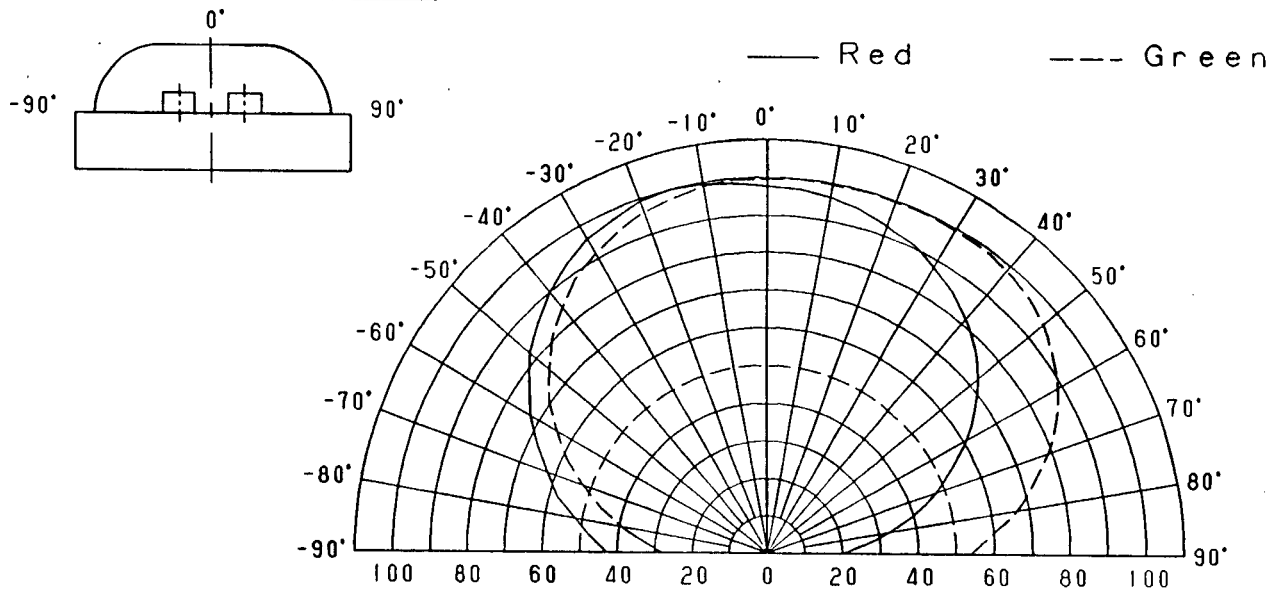
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# DEVELOPMENT SPECIFICATION

P/N:LNJ123W8PRZ

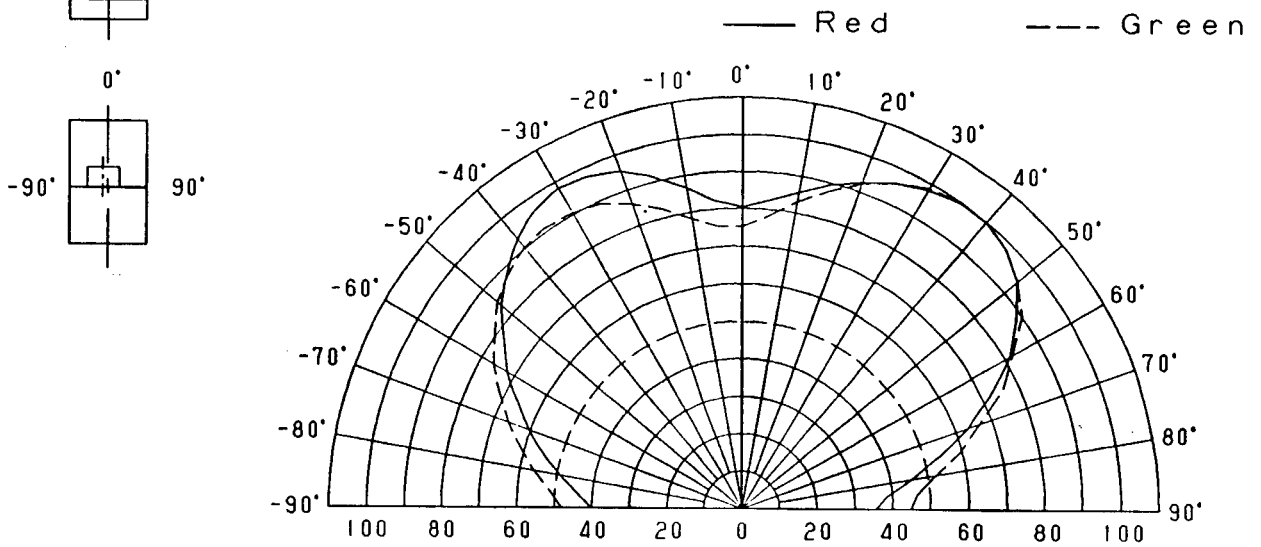


Directive Characteristics



Relative Luminous Intensity (%)

Directive Characteristics

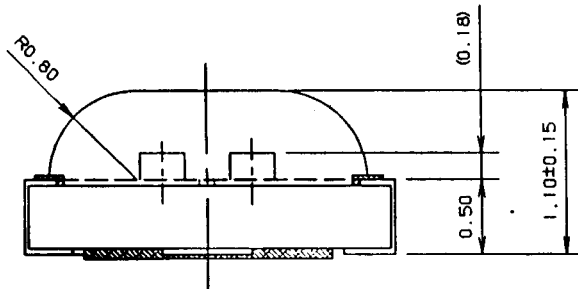
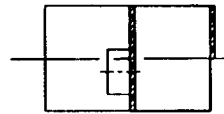
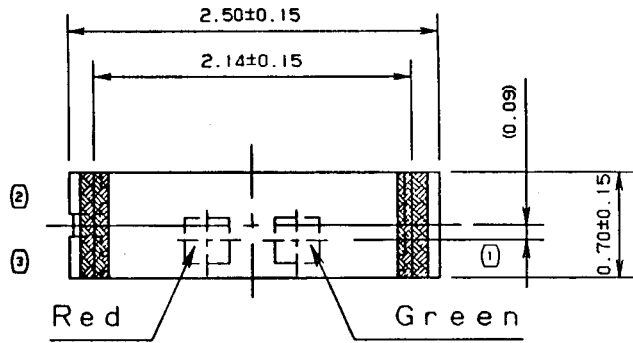


Relative Luminous Intensity (%)

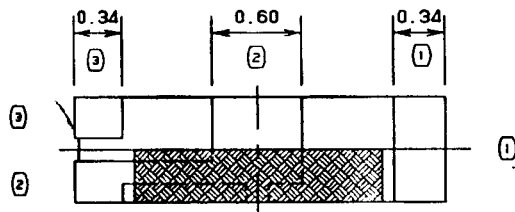
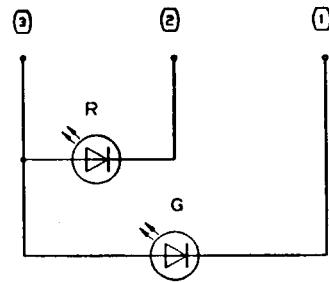
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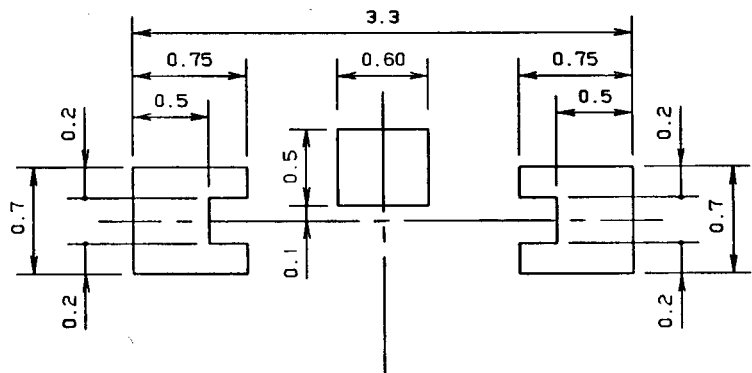
DEVELOPMENT SPECIFICATION  
TENTATIVE  
P/N:LNJ123W8PRZ



(Polarity)



Recommended soldering pattern



NOTE

- 1) Measurement of the package doesn't include electrode projection.
- 2) Unit: mm

26. Jan. 2001