Approved	Checked	Designed	DEVELOPMENT SPECIFICATION TENTATIVE P/N : LNJ123W8PRZ				

TYPE	Green(GaP)/Red(GaAlAs) Bi-color Light Emitting Diode
APPLICATION	Indicators
MATERIAL	Green : GaP , Red : GaAlAs
OUTLINE	Attached

ABSOLUTE MAXIMUM RATINGS	※1 P (G)	※1 P (R)	※2 I_{FP} (G)	※2 I_{FP} (R)	※3 I_{FDC} (G)	※3 I_{FDC} (R)	V_R (G)	V_R (R)	Topr	Tstg
	60	50	60	60	20	20	4	3	−30～+85	−40～+100
	mW		mA		mA		V		℃	℃

CONDITION Ta = 25 ± 3℃

Test Specification

Item	Symbol	Condition	Typ.	Limit Min	Limit Max	Unit
Green						
Forward Voltage	V_F	I_F = 10 mA	2.03		2.6	V
Reverse Leakage Current	I_R	V_R = 4 V			10	μA
Luminous Intensity※7	I_O	I_F = 10 mA・DC	5.0	1.8		mcd
Peak Emission Wavelength	λp	I_F = 10 mA・DC	565			nm
Spectral Line Half Width	Δλ	I_F = 10 mA・DC	30			nm
Red						
Forward Voltage	V_F	I_F = 10 mA	1.72		2.5	V
Reverse Leakage Current	I_R	V_R = 3 V			100	μA
Luminous Intensity※7	I_O	I_F = 10 mA・DC	4.0	1.5		mcd
Peak Emission Wavelength	λp	I_F = 10 mA・DC	655			nm
Spectral Line Half Width	Δλ	I_F = 10 mA・DC	20			nm

※1 (G) : Green (R) : Red

※2 The condition of I_{FP} is duty 10 % , pulse width 1 ms.
Please contact the Panasonic local office if you design at low current (blow 1mA DC) or pulse current operation and have any questions.

※3 When 2 light emitted at the same time , the total current (I_{FP} or I_{FDC}) must be I_{FP} < 60 mA , I_{FDC} < 18 mA

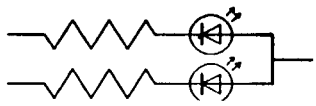
※4 Package····Light white diffusion type.

※5 Soldering conditions····Refer to Handling note.

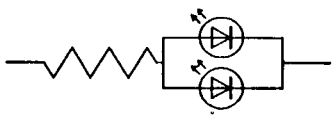
※6 Care should be taken that soldering is done within 3-days after opening the dry package and reel.

※7 Mesurement tolerance is ±20%.

Circuit to operate LED



(A)



(B)

(A)Recommended circuit.
(B) The difference of brightness between the LED could be found due to the V_F characteristics of each LED.

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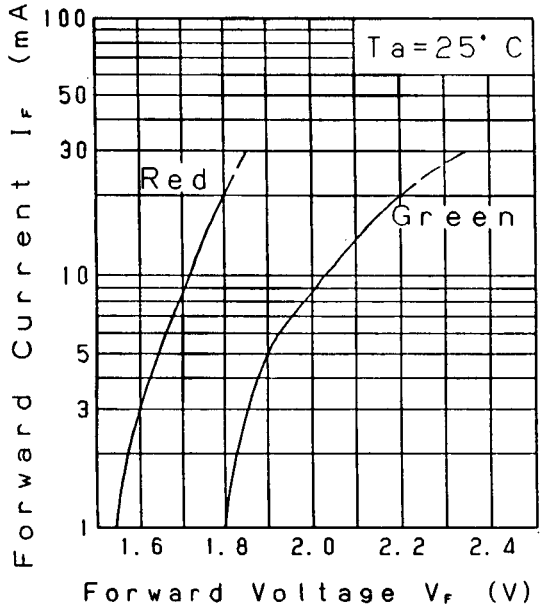
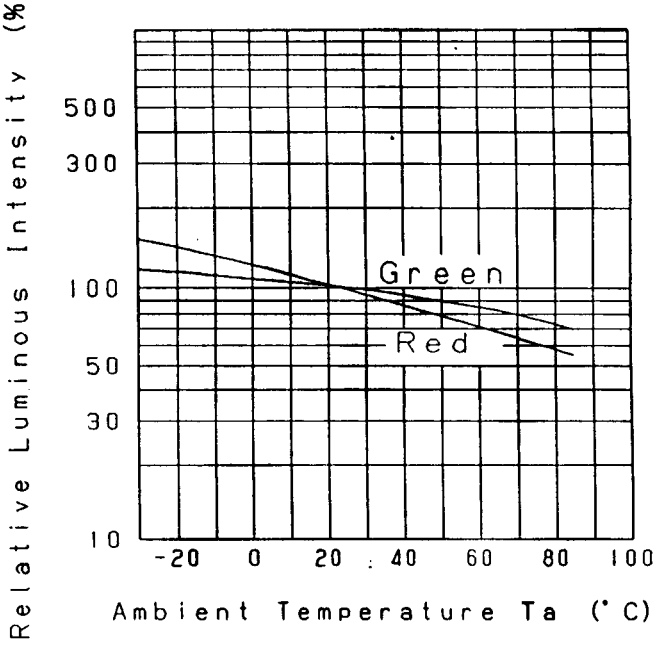
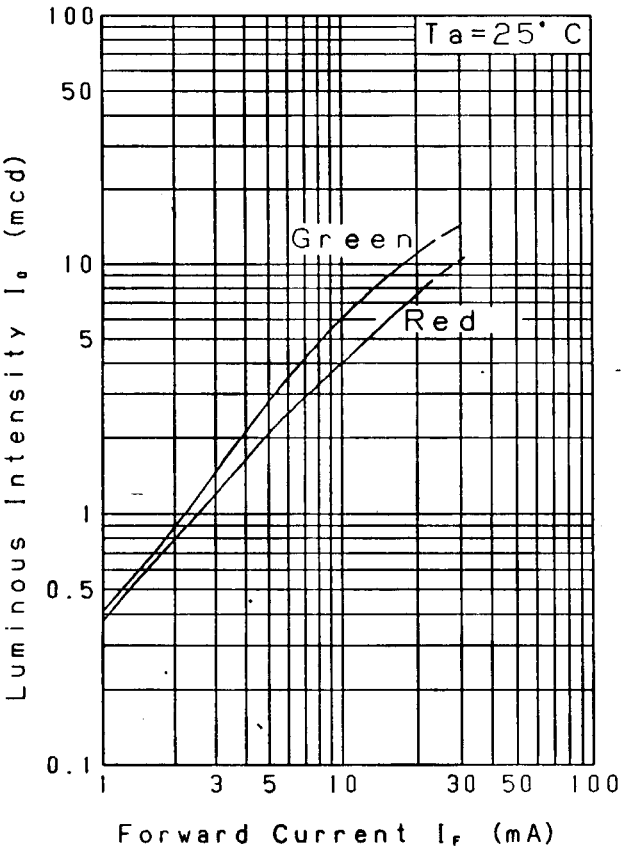
I_F - V_F



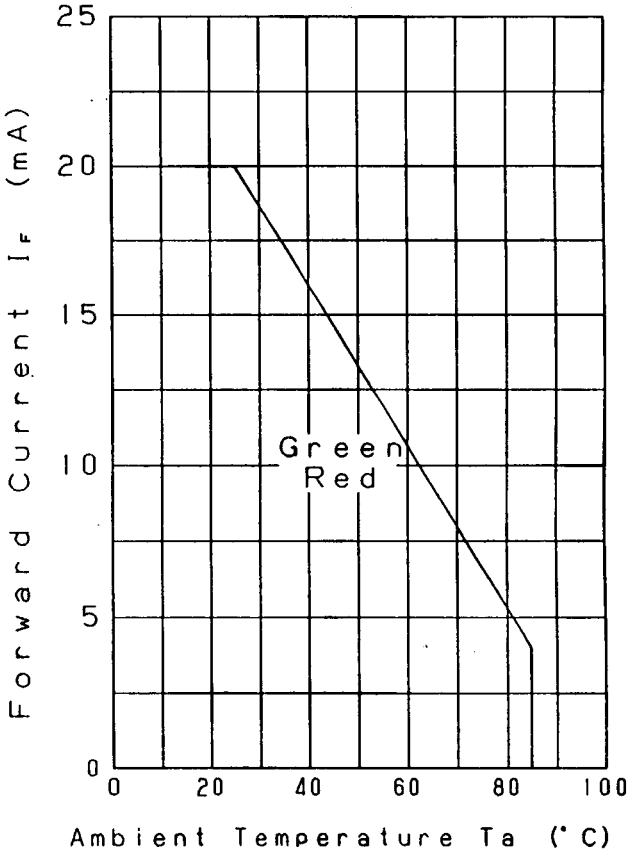
Io -、Ta



I_o - I_F



I_F - Ta



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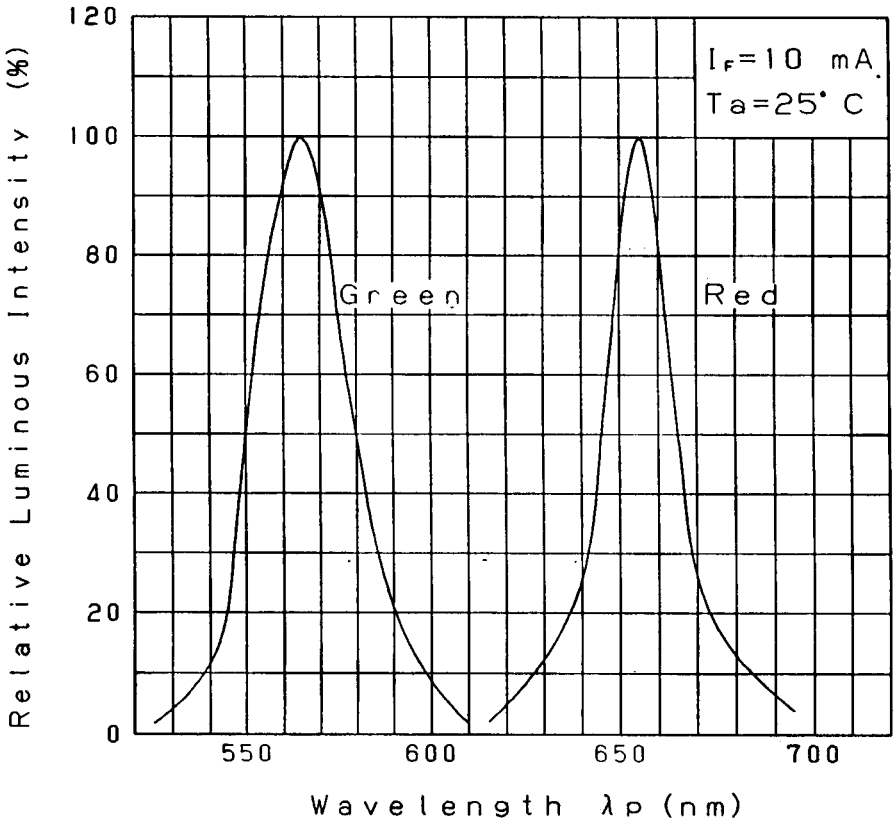
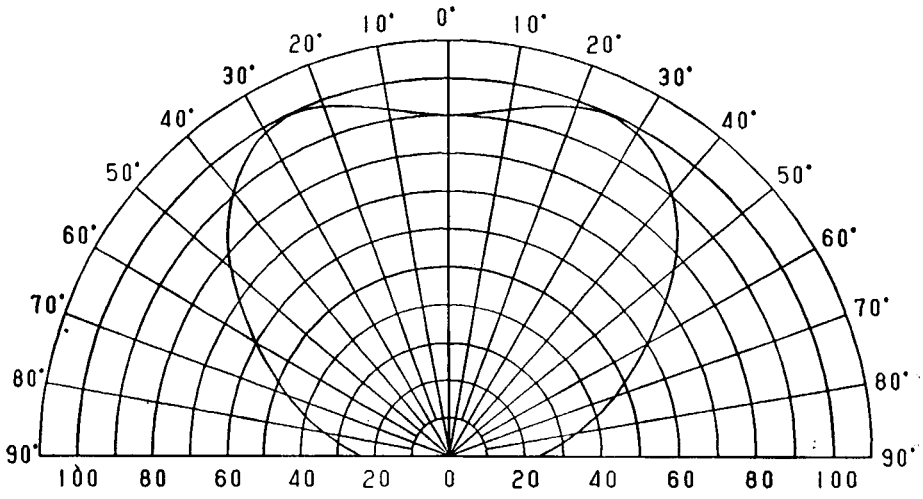
Relative Luminous Intensity
Wavelength Characteristics



Derective Characteristics



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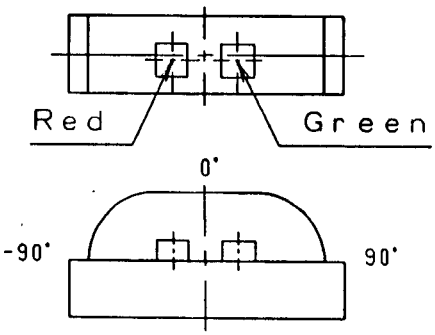
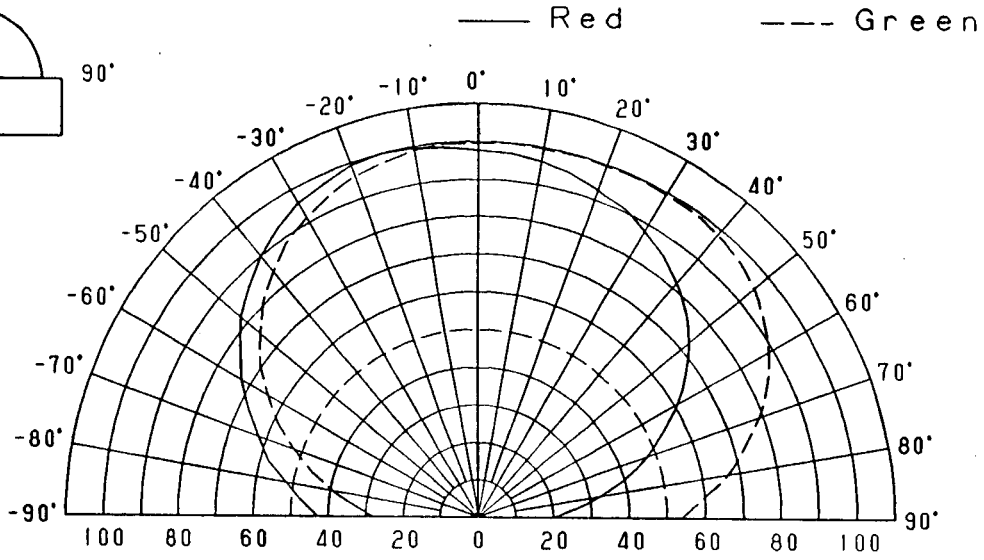
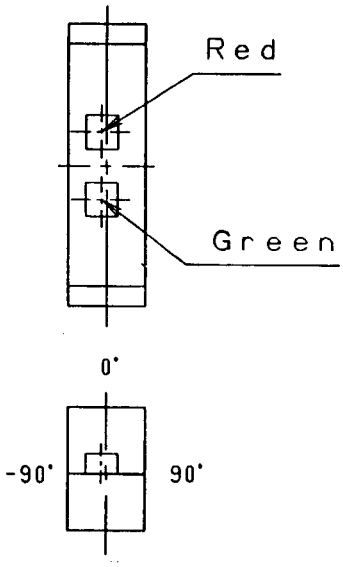


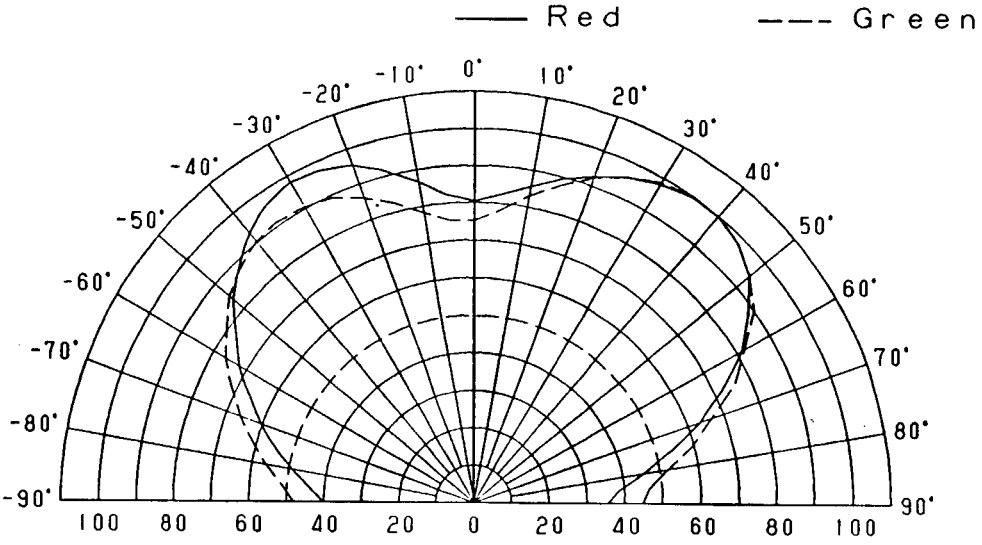
Directive Characteristics



Relative Luminous Intensity (%)



Directive Characteristics



Relative Luminous Intensity (%)

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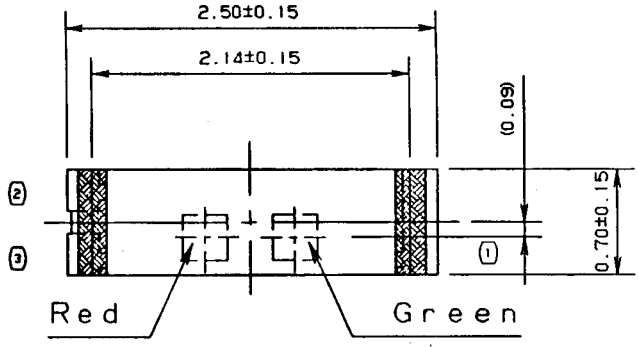
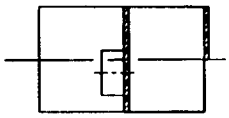
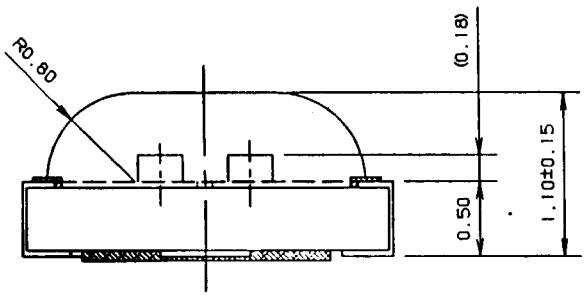
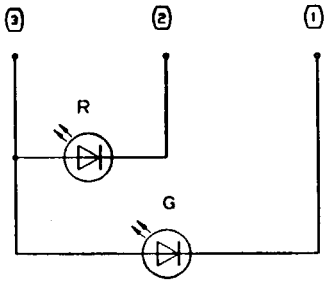
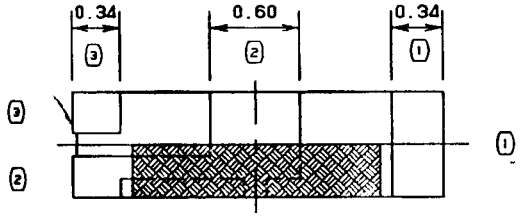




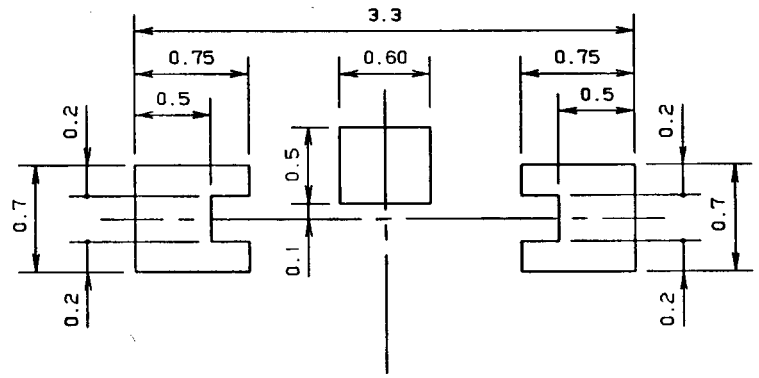


(Polarity)





Recommended soldering pattern



NOTE

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

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