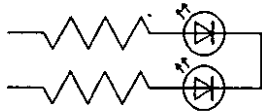
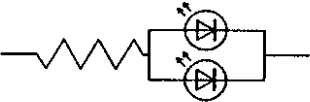


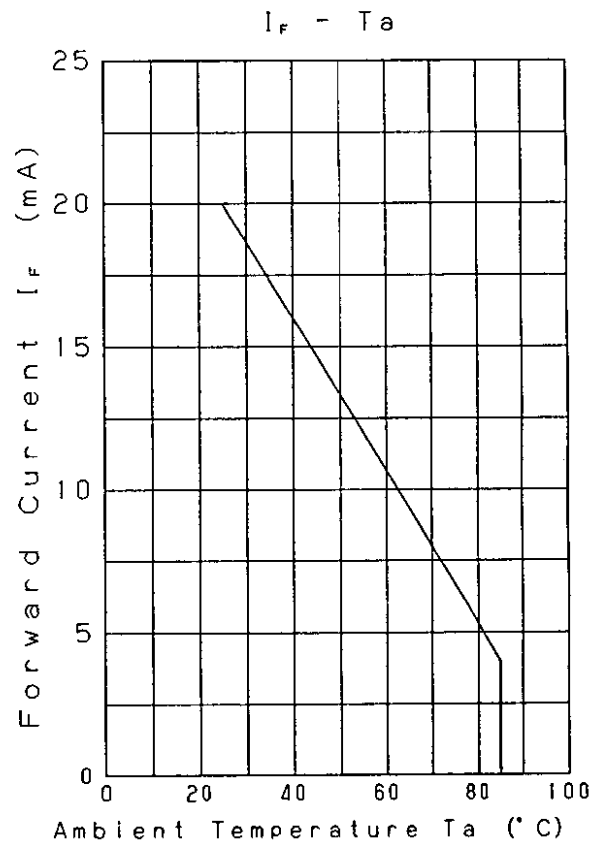
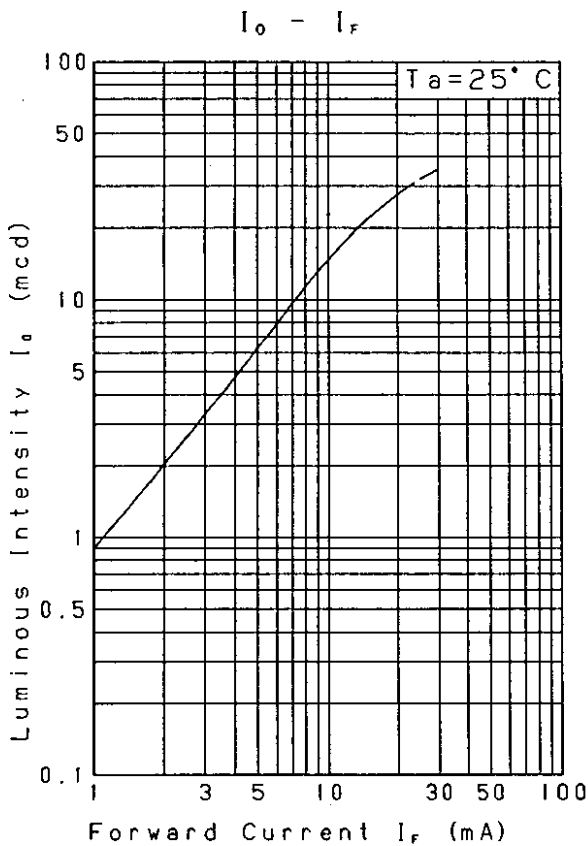
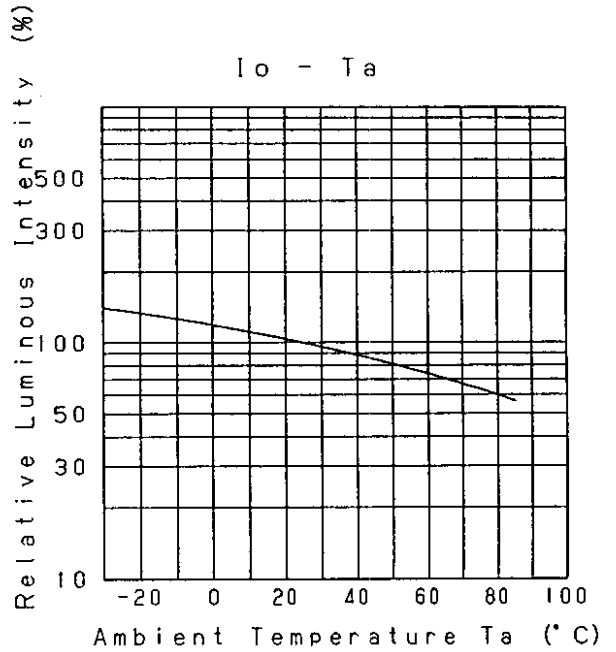
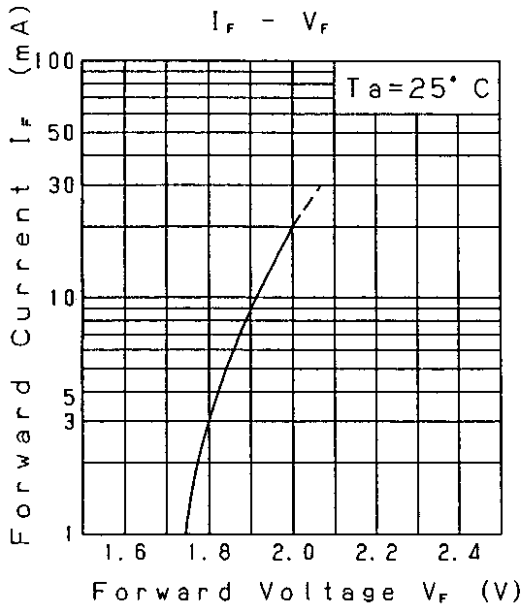
Approved	Checked	Designed	DEVELOPMENT SPECIFICATION					
		T. Tabata	P/N: LNJ211R82RA				TEMPORARY	
T Y P E			Red Light Emitting Diode					
A P P L I C A T I O N			Indicators					
M A T E R I A L			InGaAlP					
O U T L I N E			Attached					
A B S O L U T E M A X I M U M R A T I N G S			P	*1 I <sub>FP</sub>	I <sub>FDC</sub>	V <sub>R</sub>	Topr	Tstg
			55	60	20	4	-30~+85	-40~+100
			mW	mA	mA	V	°C	°C
C O N D I T I O N			T <sub>a</sub> = 25 ± 3°C					
Test Specification								
I t e m	Symbol	C o n d i t i o n	Typ	Limit		Unit		
				Min	Max			
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> = 10 mA	1.92		2.5	V		
Reverse Leakage Current	I <sub>R</sub>	V <sub>R</sub> = 4 V			100	μA		
Luminous Intensity *2	I <sub>O</sub>	I <sub>F</sub> = 10 mA DC	15	8		mcd		
Peak Emission Wavelength	λ <sub>p</sub>	I <sub>F</sub> = 10 mA DC	645			nm		
Spectral Line Half Width	Δλ	I <sub>F</sub> = 10 mA DC	22			nm		
<p>*1. The Condition of I<sub>FP</sub> is duty 10 %, Pulse width 1 ms</p> <p>*2. Tolerance of luminous intensity : ±20%.</p> <p>NOTE</p> <p>★1. Please contact the Panasonic local office if you design at low current (blow 1mA DC) or pulse current operation and have any questions.</p> <p>★2. Soldering conditions····Refer to Handling note.</p> <p>★3. Compositions of the lead ···· Cu/Ni/Au plating</p> <p>★4. Beware of destruction by static electricity in handling the LED.</p> <p>★5. Circuit to operate LED.</p>								
						<p>(A) Recommended circuit.</p>		
						<p>(B) The difference of brightness between the LED could be found due to the V<sub>F</sub> characteristics of each LED.</p>		
Oct. 20. 2001								

Approved	Checked	Designed
		T. Tabata

DEVELOPMENT SPECIFICATION

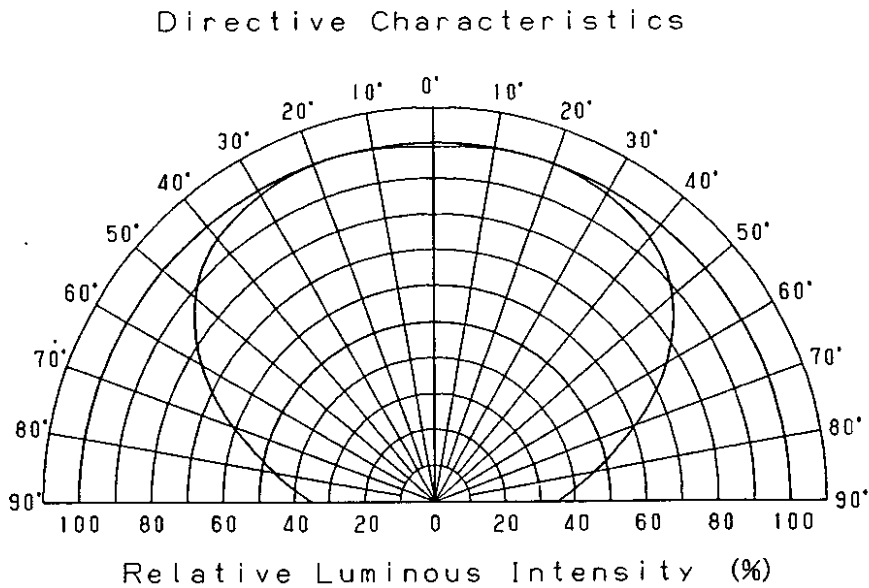
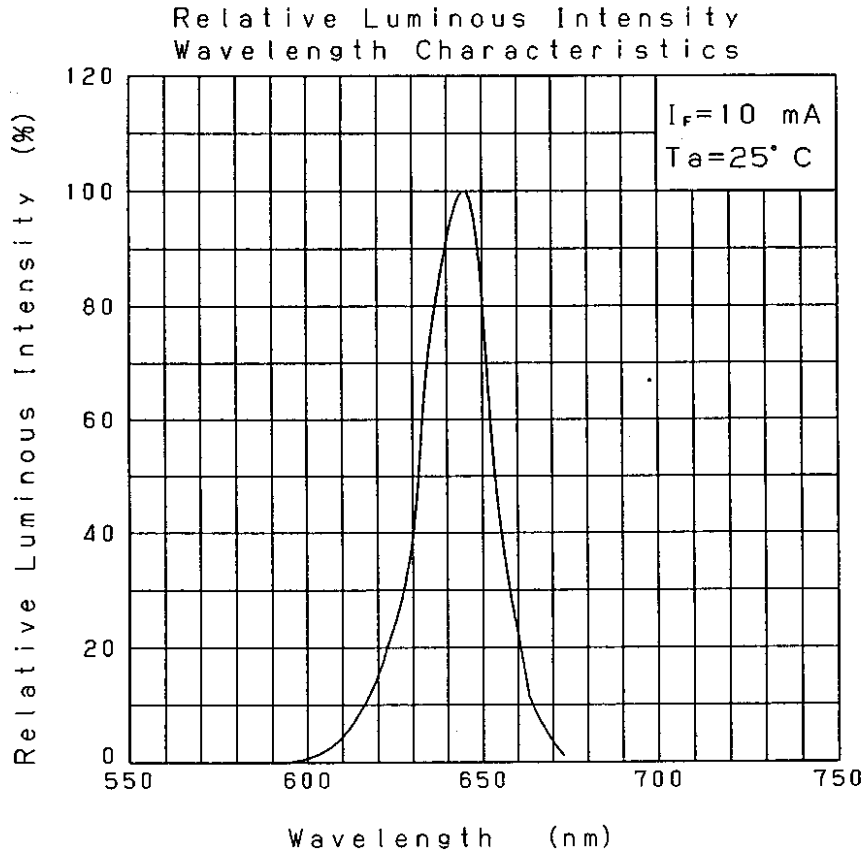
P/N: LNJ211R82RA

TEMPORARY



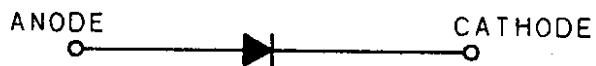
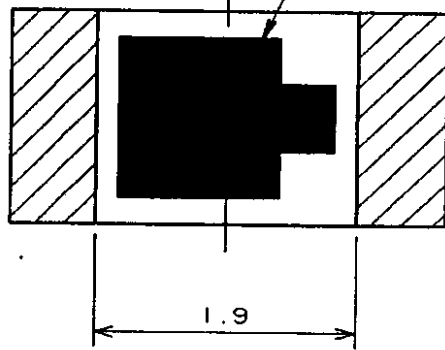
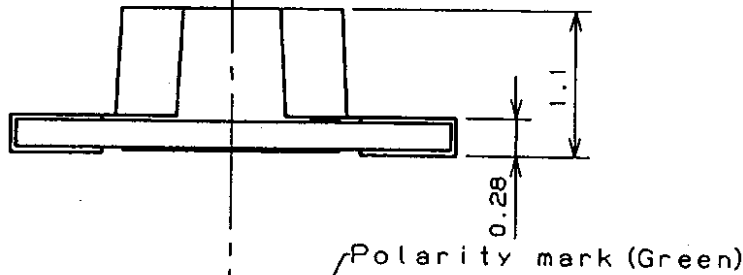
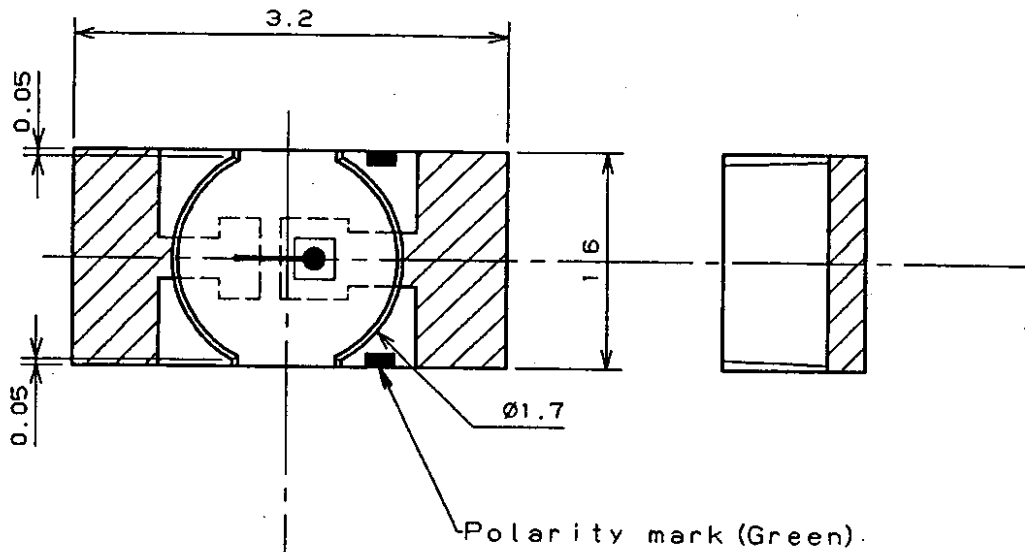
Oct.20.2001

Approved	Checked	Designed	DEVELOPMENT SPECIFICATION	TEMPORARY
		T. Takata		



Oct.20.2001

Approved	Checked	Designed	DEVELOPMENT SPECIFICATION (OUTLINE)		
<i>M. Yamazaki</i>	<i>T. Shiroki</i>	<i>T. Tabatake</i>			



- (NOTE)
1. Unit: mm
  2. Tolerance unless specified is  $\pm 0.15$ .
  3. indicate Au terminal.

Jan. 14. 1988			
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DESIGNED BY: KAGUCHI, MACHIDA, ELECTRONICS CO., LTD. TEL: 03-333-8188