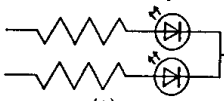
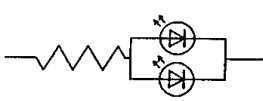
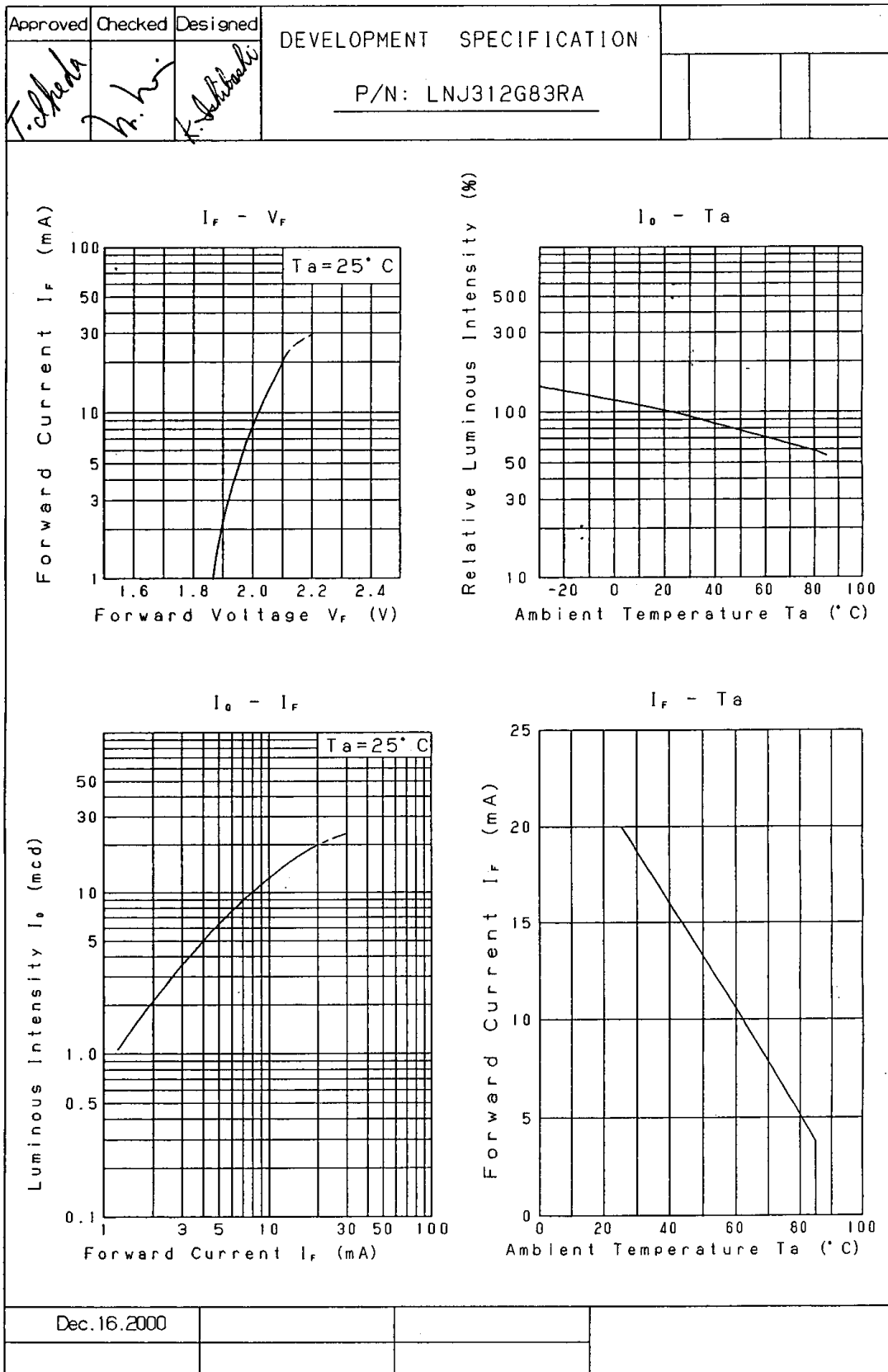


Approved	Checked	Designed	DEVELOPMENT SPECIFICATION																		
<i>T. Shoda</i>	<i>M. Ho</i>	<i>K. Shoda</i>	P/N:LNJ312G83RA																		
T	Y	P	E	Green Light Emitting Diode																	
APPLICATION				Indicators																	
MATERIAL				InGaAlP																	
OUTLINE				Attached																	
ABSOLUTE				P	*1 I_{FP}	I_{FK}	V_R	Topr		Tstg											
MAXIMUM				55	60	20	4	-30~+85		-40~+100											
RATINGS				mW	mA	mA	V	℃		℃											
CONDITION				$T_a = 25 \pm 3^\circ\text{C}$																	
Test Specification																					
I t e m		Symbol	C o n d i t i o n		Typ.	Limit				Unit											
						Min	Max														
Forward Voltage		V_F	$I_F = 10 \text{ mA}$		2.03		2.5			V											
Reverse Leakage Current		I_R	$V_R = 4 \text{ V}$				100			μA											
Luminous Intensity *2		I_O	$I_F = 10 \text{ mA DC}$		12	6.4				mcd											
Peak Emission Wavelength		λ_p	$I_F = 10 \text{ mA DC}$		575					nm											
Spectral Line Half Width		$\Delta\lambda$	$I_F = 10 \text{ mA DC}$		15					nm											
*1 · The Condition of I_{FP} is duty 10 % , Pulse width 1 ms · Please contact the Panasonic local office if you design at low current (below 1 mA DC) or pulse current operation and have any questions. *2 Measurement Tolerance is $\pm 20\%$. Rank classification of luminous intensity. (Measurement condition ; $I_F = 10\text{mA}$) <table><tr><th>Rank</th><th>Luminous intensity(mcd)</th></tr><tr><td>1</td><td>6.4 ~ 9.6</td></tr><tr><td>2</td><td>9.6 ~ 14.4</td></tr><tr><td>3</td><td>14.4 ~ 21.6</td></tr><tr><td>4</td><td>21.6 ~ 32.4</td></tr></table>												Rank	Luminous intensity(mcd)	1	6.4 ~ 9.6	2	9.6 ~ 14.4	3	14.4 ~ 21.6	4	21.6 ~ 32.4
Rank	Luminous intensity(mcd)																				
1	6.4 ~ 9.6																				
2	9.6 ~ 14.4																				
3	14.4 ~ 21.6																				
4	21.6 ~ 32.4																				
NOTE																					
★1. Terminal:Plated with gold on copper base.																					
★2. Beware of destruction by static electricity in handling the LED.																					
★3. Soldering conditions. Refer to Handling note.																					
★4. Care should be taken that soldering is done within 3-days after opening the dry package and reel.																					
★5. Circuit to operate LED.																					
 																					
(A) Recommended circuit. (B) The difference of brightness between the LED could be found due to the V_F characteristics of each LED.																					
Dec. 16, 2000																					

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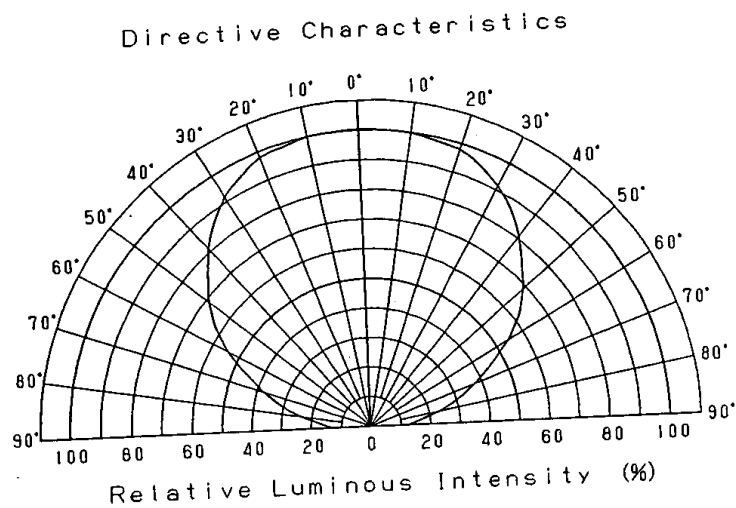
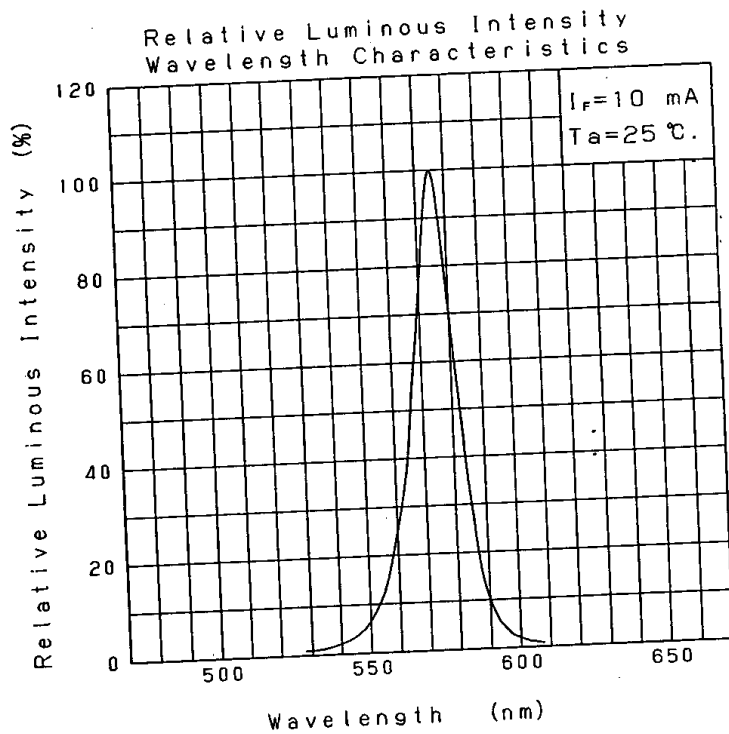
KB-II-022-018B



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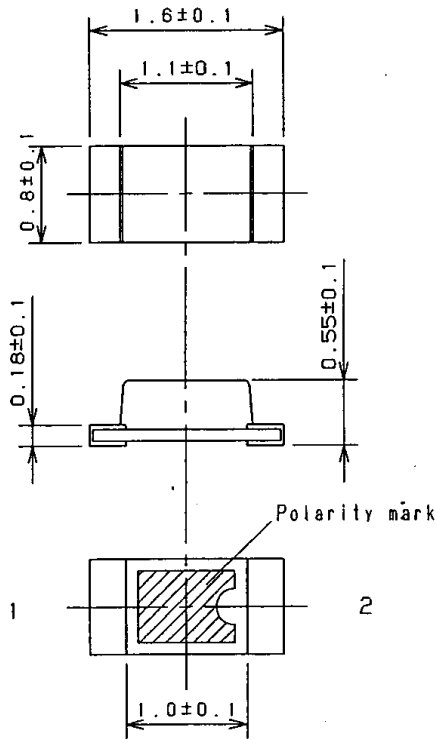
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KBH-022-018B

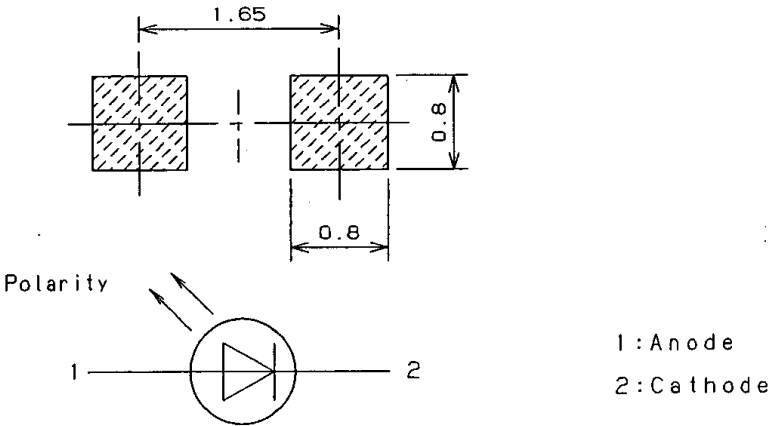


Approved	Checked	Designed
<i>T. Shida</i>	<i>M. Ito</i>	<i>K. Sekine</i>

DEVELOPMENT SPECIFICATION
 (O U T L I N E)
 P/N:LNJ312G83RA



Recommended Land Layout



(NOTE)

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

Dec.16.2000			
Panasonic	KAGOSHIMA MATSUSHITA ELECTRONICS CO.,LTD.	:	KB-H-022-018B