

Approved	Checked	Released	DEVELOPMENT SPECIFICATION
<i>N. Yamada</i>	<i>K. Saito</i>	<i>K. Koyu</i>	
			<u>LNG995PFBW</u>

T Y P E	Blue Light Emitting Diode					
MATERIAL	GaN					
APPLICATION	Indicators					
OUTLINE	This spec is "Target Spec". so it may be revised a part of it as time of establishment of "Regular Spec".					
CONNECTION						
ABSOLUTE MAXIMUM RATINGS	P	I_{rr}^*	I_{roc}	V_R	T_{op}	T_{stg}
	120 mW	100 mA	30 mA	5 V	-25~+80 °C	-30~+100 °C
CONDITION	$T_a = 25 \pm 3^\circ C$					

Test Specification

Item	Symbol	Condition	Typ	Limit		Unit
				Min	Max	
Forward Voltage	V_f	$I_f = 20 \text{ mA}$	3.5		4.0	V
Reverseleakage Current	I_R	$V_R = 5 \text{ V}$			10	μA
Luminous Intensity	I_o	$I_f = 20 \text{ mA}$	370	145		mcd
Peak Emission Wavelength	λ_p	$I_f = 20 \text{ mA}$	468			nm
Spectral Line Half Width	$\Delta\lambda$	$I_f = 20 \text{ mA}$	30			nm
Dominant Wavelength	λ_D	$I_f = 20 \text{ mA}$	470	465	475	nm

* The condition of pulse current I_{rr} is 10ms pulse width, 10% duty cycle.
 *1 Measurement tolerance is $\pm 2 \text{ nm}$
 (Note)
 1. If you have any questions or take special operation, please contact to Panasonic office.
 (Example) -Low current (below 1 mA DC)
 -Pulse current ($P_w \leq 10 \text{ ms}$, $Duty \leq 10 \%$)
 2. Lead material is iron, and its surface is dip-soldered.
 3. Do not apply mechanical stress during soldering.
 4.
 A blue LED is sensitive to static electricity and care should be fully taken in handling it. Particularly, when an overvoltage is applied, which exceeds the absolute maximum rating of the blue LED, its energy damages the LED. Therefore, take utmost proactive measures against static electricity and surge as to building an assembly line and handling the LED halfway the process.
 (1) Check the entire drive circuit including the power source. For example, a surge current, etc., generated at power-on/off should not exceed the absolute maximum rating of the LED. Also, insert an appropriate protective circuit into the LED drive circuit.
 (2) Beware of destruction by static electricity in handling the LED. As proactive measures against static electricity, it is effective to earth your body (via 1M Ω), spread conductive mat on the floor, wear semiconductive work uniform and shoes, and use semiconductive containers. Also, be sure to earth the nose of a soldering iron. It is recommended to use an ionizer, etc., in the facility or environment where static electricity may be generated easily.

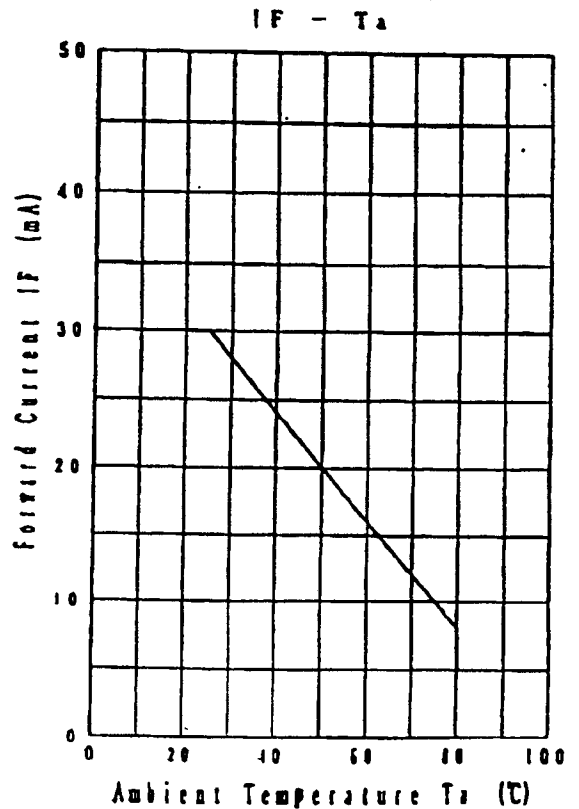
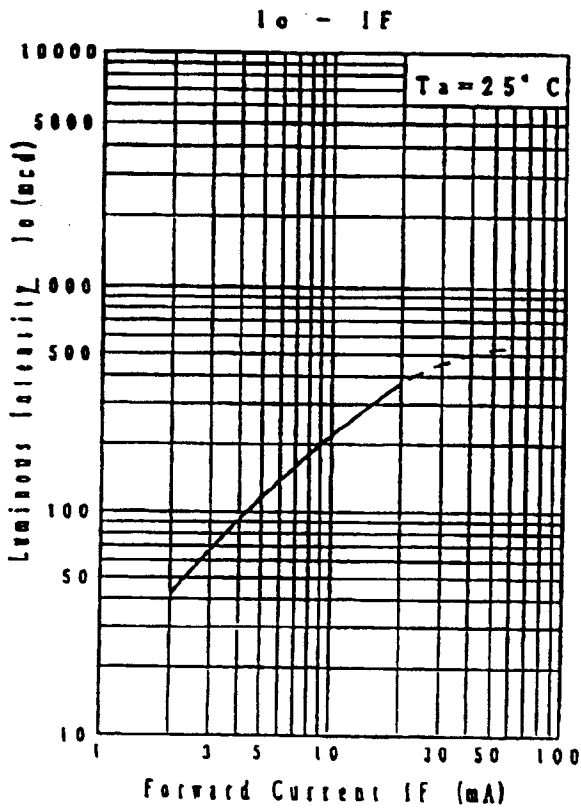
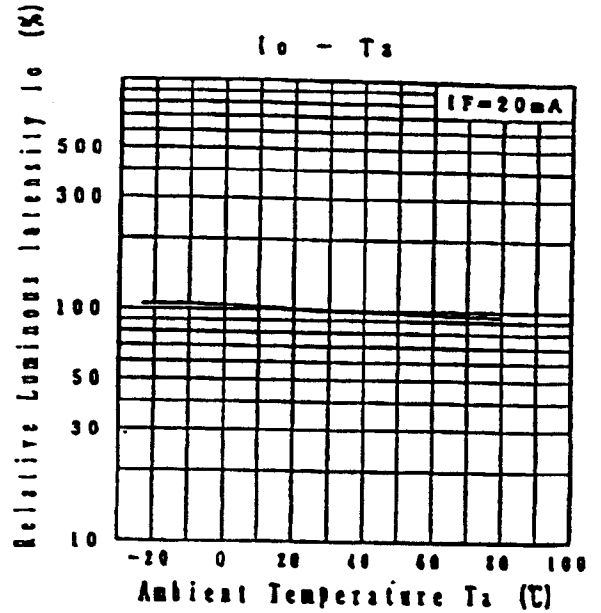
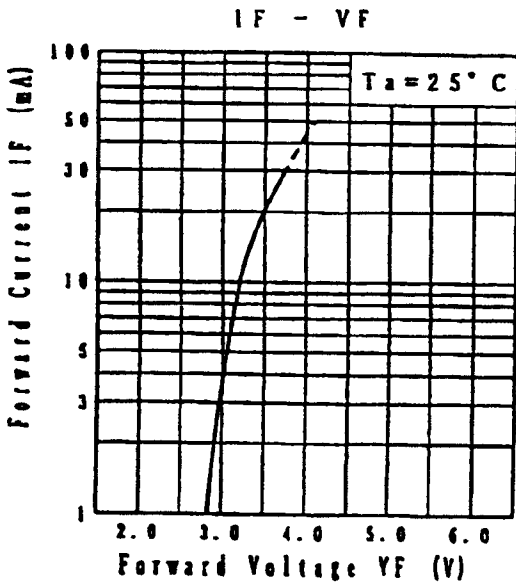
Apr. 1997		
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DEVELOPMENT SPECIFICATION

LNG995PFBW

Handwritten signatures:
M. Honda
K. Sano
A. Koye

This spec is "Target Spec", so it may be revised a part of it as time of establishment of "Regular Spec".



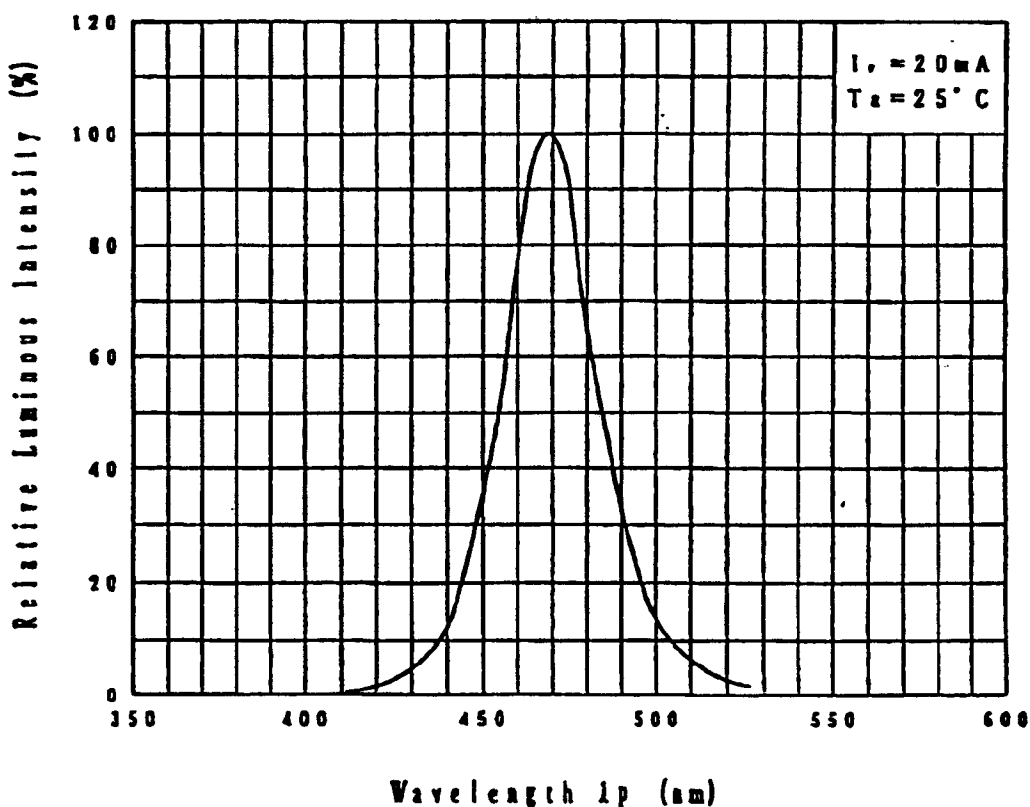
Mar. 4. 1997

<i>M. Yamada</i>	<i>K. Sanada</i>	<i>K. Koyu</i>
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DEVELOPMENT SPECIFICATION

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Relative Luminous Intensity Wavelength Characteristics



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Mar. 4. 1997

Y. Yamashita
K. Sasaki
K. Koyu

DEVELOPMENT SPECIFICATION

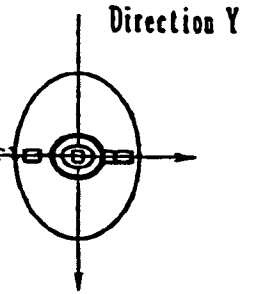
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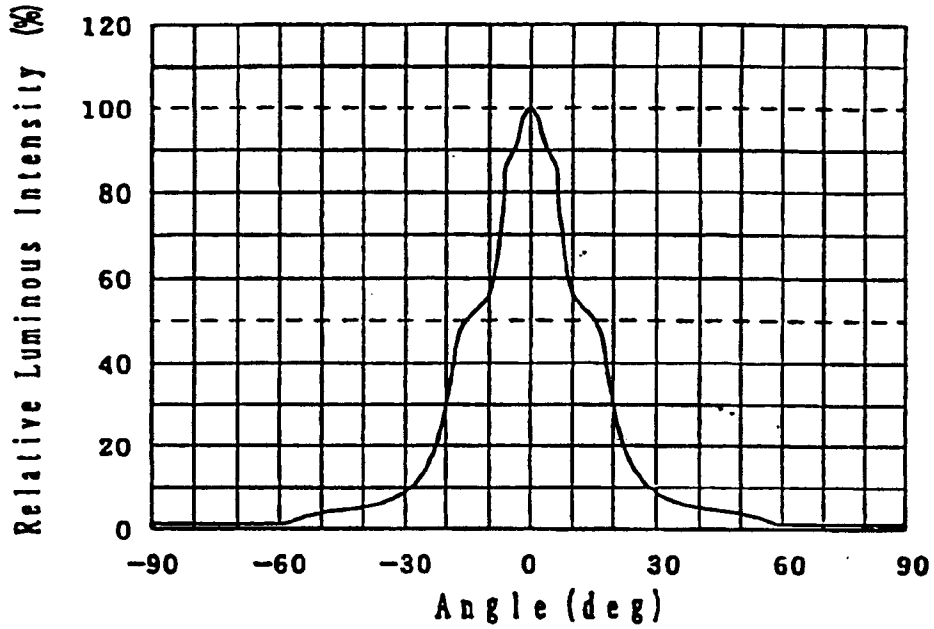
Directive Characteristics

This spec is "Target Spec", so it may be revised a part of it as time of establishment of "Regular Spec".

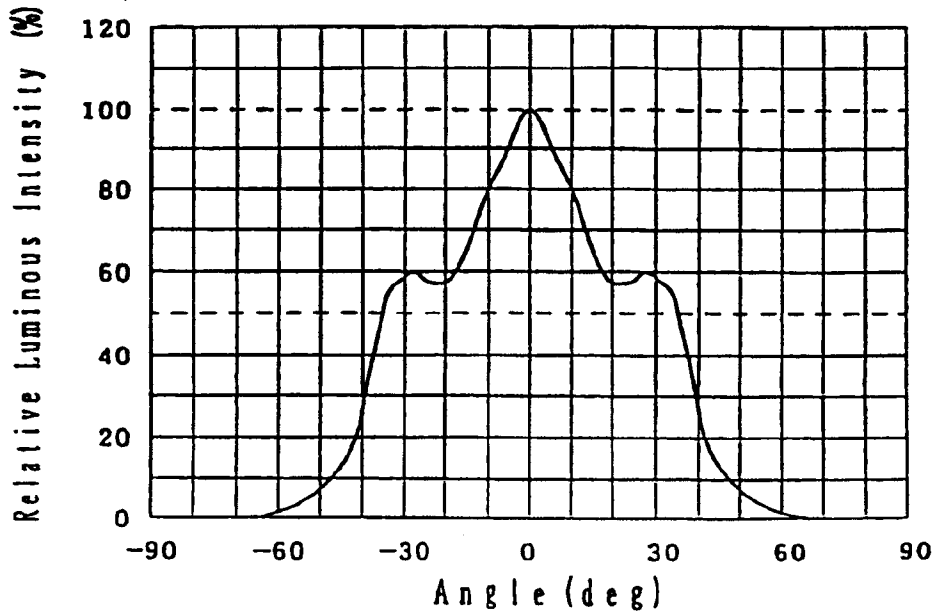
Direction X



Direction X



Direction Y



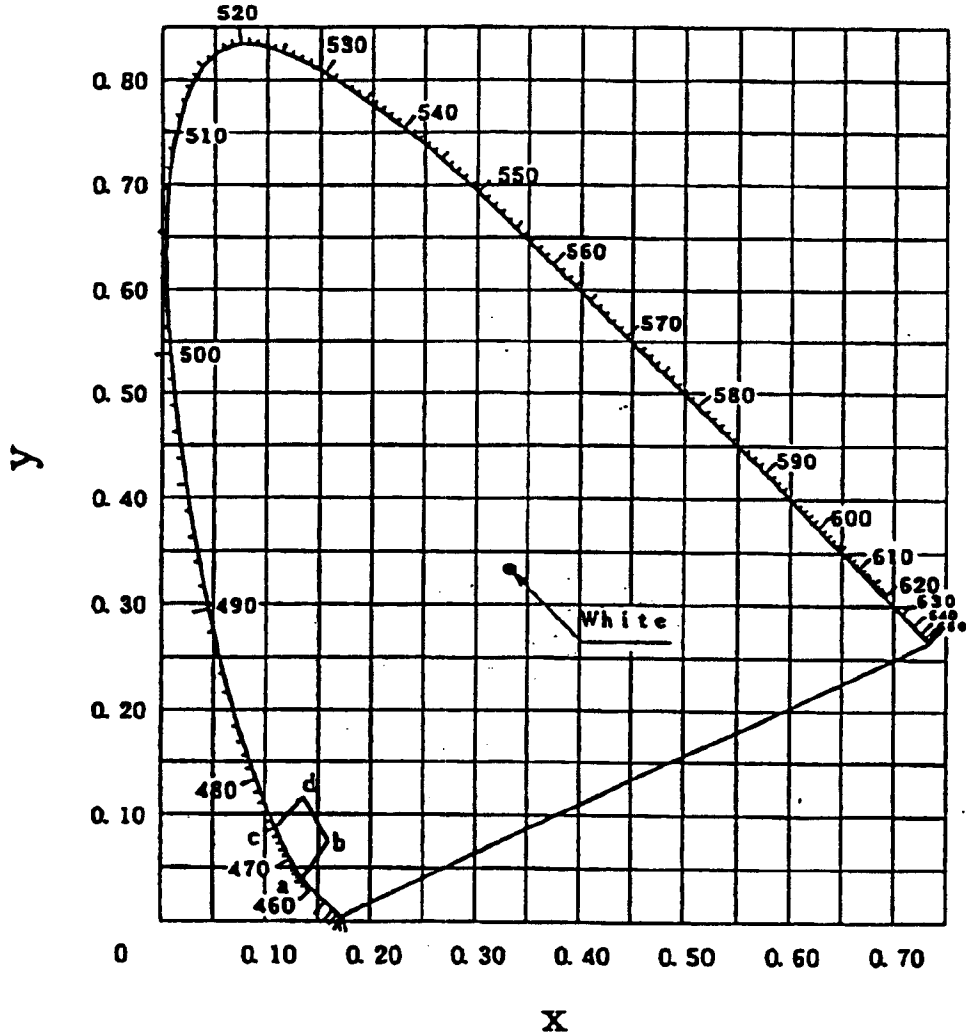
Mar. 4. 1997

DEVELOPMENT SPECIFICATION

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APPROVED: *K. Sano*
 DESIGNED: *K. Kato*

Chromaticity diagram



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Chromaticity coordinates

	a	b	c	d
x	0.136	0.159	0.110	0.136
y	0.040	0.075	0.087	0.116

Mar. 5. 1997

Approved / Checked / Modified

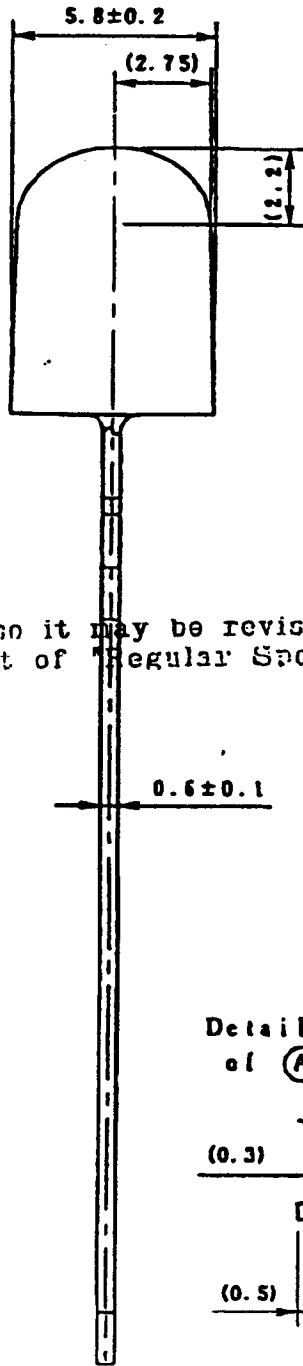
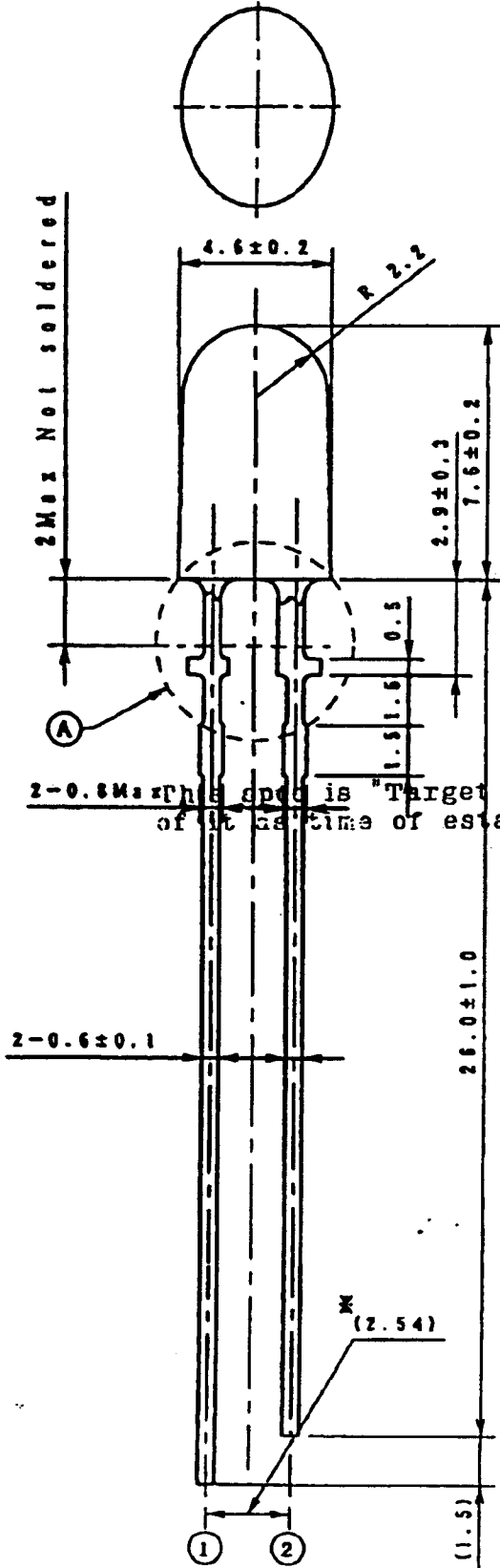
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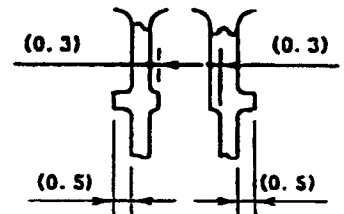
K. Srinivas
K. Srinivas
K. Srinivas

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- ① Anode
- ② Cathode



Detail drawing of (A) part



Tolerance is ± 0.2 , unless otherwise specified
*Reference.

2-0.6 Max This spec is "Target Spec", so it may be revised a part of its lifetime of establishment of "Regular Spec".

Mar. 4. 1997

Approved | Checked | Design |
[Handwritten signatures]

DEVELOPMENT SPECIFICATION

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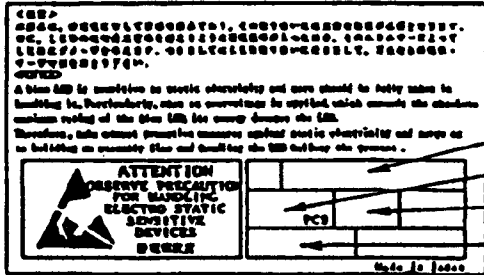
1. Packing Division

- 1) Al laminate bag 500 pieces (105x225)
- 2) Packing (inner) 1000 pieces (110x235x57.5)
- 3) Packing (outer) 10000 pieces (238x573x120)

*1 Ranks can't be mixed in the inner case.

*2 Ranks can be mixed in the outer case.

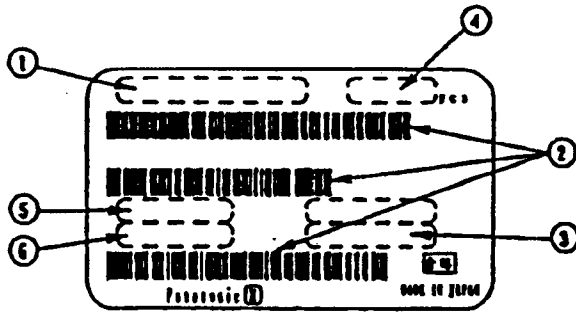
2. Al laminate bag indication. (Label ①)



- ① — Product No.
 - ② — Quantity
 - ③ — Rank
 - ④ — Date code
- This indicated is only Al laminate bag.

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3. Label Items. (Label ②)



- ① — Customer code
- ② — Bar code symbol
- ③ — Product No.
- ④ — Quantity
- ⑤ — Rank
- ⑥ — Date code

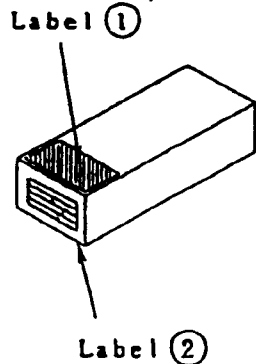
Note.

1. Example of date code.

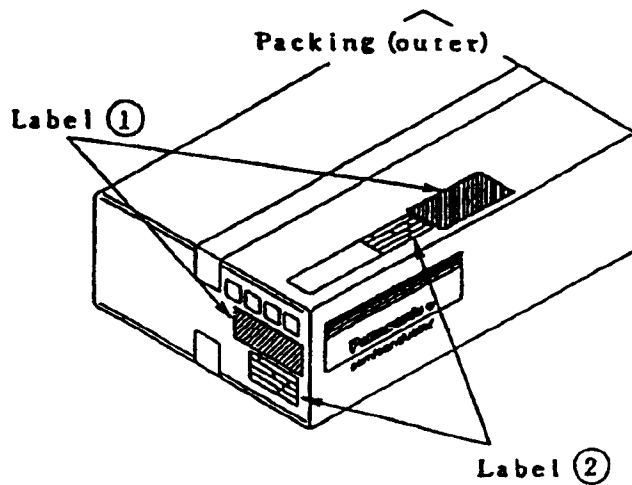
Date code of '73' indicates March, 1997 (Date of Al laminate bag and case packing).

2. Ranks can be mixed in the outer case.

Packing (inner)



Packing (outer)



Mar. 4. 1997

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<i>M. Yamamoto</i>	<i>K. Sasaki</i>	<i>K. H. 72</i>		

Requests and Capabilities exceeds "Target Spec", so it may be revised a part of it as time of establishment of "Regular Spec".

1. An export permit needs to be obtained from the competent authorities of the Japanese Government if any of the products or technologies described in this document and controlled under the "Foreign Exchange and Foreign Trade Control Law" is to be exported or taken out of Japan.
2. The technical information described in this document is limited to showing representative characteristics and applied circuit examples of the products. It does not constitute the warranting of industrial property, the granting of relative rights, or the granting of any license.
3. The products described in this document are intended to be used for standard applications or general electronic equipment (such as office equipment, communications equipment, measuring instruments and household appliances).
Consult our sales staff in advance for information on the following applications:
 - Special applications (such as for airplanes, aerospace, automobiles, traffic control equipment, combustion equipment, life support systems and safety devices) in which exceptional quality and reliability are required, or if the failure or malfunction of the products may directly jeopardize life or harm the human body.
 - Any applications other than the standard applications intended.
4. When designing your equipment, comply with the guaranteed values, in particular those of maximum rating, the range of operating power supply voltage and heat radiation characteristics. Otherwise, we will not be liable for any defect which may arise later in the equipment.
Even when the products are used within the guaranteed values, redundant design is recommended, so that such equipment may not violate relevant laws or regulations because of the function of our products.
5. When using products for which vacuum packing is required, observe the conditions (including shelf life and after-unpacking stand-by time) agreed upon when specification sheets are individually exchanged.

6. OTHERS

For the doubts or necessity of change in this specification, mutual discussion will be made for the solution.

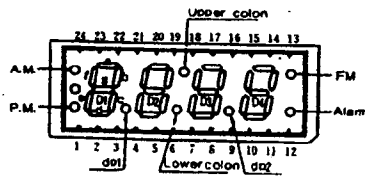
Not using the O. D. C and PBBOs in the LED's.

Mar. 5. 1997		

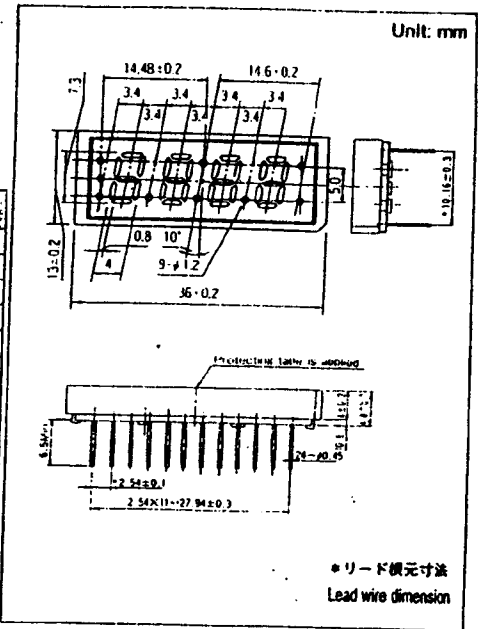
4 Digit 0.3inch Series

- Type No. Lighting Color
- LN543RAN8 Red
 - LN543RKN8 Red
 - LN533GAN8 Green
 - LN543GKN8 Green

端子接続 Terminal Connection



Pin No.	Cathode	Anode
1	Cathode PM	Anode PM
2	Anode Dig 1	Cathode Dig 1
3	Cathode d	Anode d
4	Cathode dp 1	Anode dp 1
5	Anode Dig 2	Cathode Dig 2
6	Cathode Lower colon	Anode Lower colon
7	Cathode Upper colon	Anode Upper colon
8	Anode Dig 3	Cathode Dig 3
9	Cathode dp 2	Anode dp 2
10	Anode Dig 4	Cathode Dig 4
11	Cathode e	Anode e
12	Cathode Alarm	Anode Alarm
13	Anode FM, Alarm	Cathode FM, Alarm
14	Cathode FM	Anode FM
15	Cathode a	Anode a
16	Anode dp 2	Cathode dp 2
17	Anode Lower Upper	Cathode Lower Upper
18	Cathode i	Anode i
19	Cathode b	Anode b
20	Cathode c	Anode c
21	Anode dp 1	Cathode dp 1
22	Cathode g	Anode g
23	Cathode AM	Anode AM
24	Anode AM, PM	Cathode AM, PM



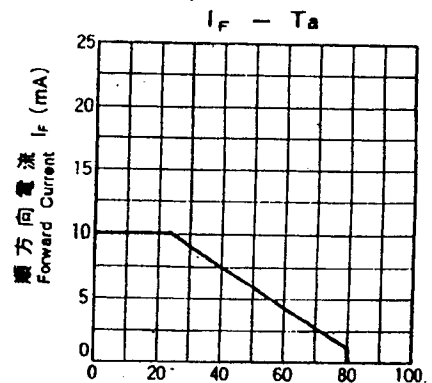
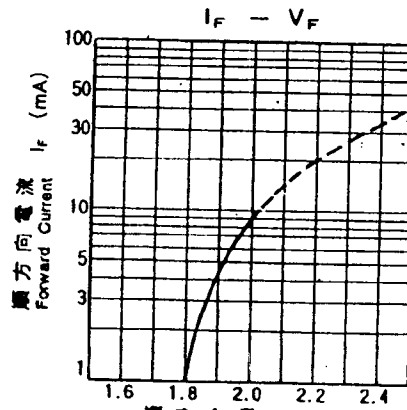
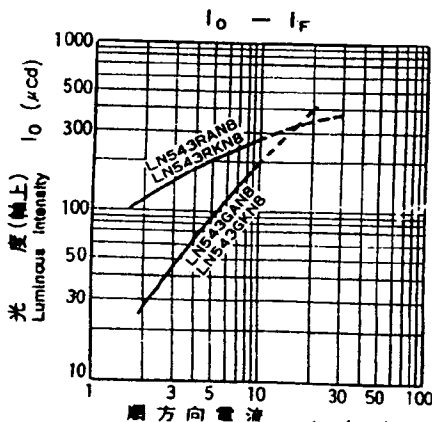
絶対最大定格 Absolute Maximum Ratings (Ta=25 °C)

Color	Red	Green	Operating Current (mA)	Operating Voltage (V)	Storage Temperature (°C)	Operating Temperature (°C)
Red	30	10	60	5	-25~+80	-30~+85
Green	30	10	60	5	-25~+80	-30~+85

* Ippの条件は、duty 10%, Pulse width 1 msec. The condition of Ipp is duty 10%, Pulse width 1 msec

電気的光学的特性 Electro-Optical Characteristics (Ta=25 °C)

Model	Color	Configuration	I _o (μcd)	I _F (mA)	V _F (V)	λ _c (nm)	λ _e (nm)	I _F (mA)	I _o (μcd)	V _F (V)			
LN543RAN8	Red	Anode	200	100	100	5	2.03	2.8	700	100	10	10	5
LN543RKN8	Red	Cathode	200	100	100	5	2.03	2.8	700	100	10	10	5
LN543GAN8	Green	Anode	200	80	80	10	2.03	2.8	565	30	10	10	5
LN543GKN8	Green	Cathode	200	80	80	10	2.03	2.8	565	30	10	10	5
Unit.	—	—	μcd	μcd	μcd	mA	V	V	nm	nm	mA	μA	V



单击下面可查看定价，库存，交付和生命周期等信息

[>>Panasonic\(松下\)](#)