

Approved	Checked	Designed	DEVELOPMENT SPECIFICATION				
		<i>T. Tabata</i>		P/N: LN J 0 1 2 X 8 B R A			

T Y P E	White Light Emitting Diode					
A P P L I C A T I O N	Indicators					
M A T E R I A L	GaN					
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	I_{FDC}	*1 I_{FP}	V_R	Topr	Tstg
	40	10	50	5	-30~+85	-40~+100
	mW	mA	mA	V	°C	°C
C O N D I T I O N	$T_a = 25 \pm 3 \text{ } ^\circ\text{C}$					

Test Specification						
I t e m	S y m b o l	C o n d i t i o n	T y p .	L i m i t		U n i t
				Min.	Max.	
Forward Voltage	V_F	$I_F = 10 \text{ mA} \cdot \text{DC}$	3.2		3.7	V
Reverse Leakage Current	I_R	$V_R = 5 \text{ V}$			10	μA
Luminous Intensity *2	I_O	$I_F = 10 \text{ mA} \cdot \text{DC}$	76	47		mcd
Chromatic coordinates	x	$I_F = 10 \text{ mA} \cdot \text{DC}$	-	0.260	0.355	-
	y	$I_F = 10 \text{ mA} \cdot \text{DC}$	-	0.247	0.383	-

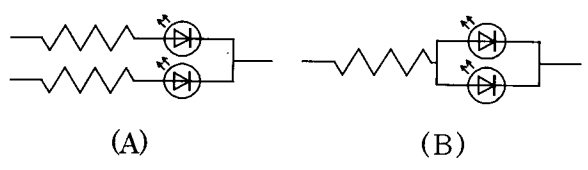
*1 • The Condition of I_{FP} is duty 10 %, Pulse width 1 ms.
 • Please contact the Panasonic local office if you design at low current (below 1 mA DC) or pulse current operation and have any questions.

*2 • Tolerance of luminous intensity is $\pm 20 \%$.

NOTE

1. Soldering conditions. Refer to Handling note.
2. Package; light white diffusion type
3. Care should be taken that soldering is done within 7-days after opening the dry package and reel.

Circuit model

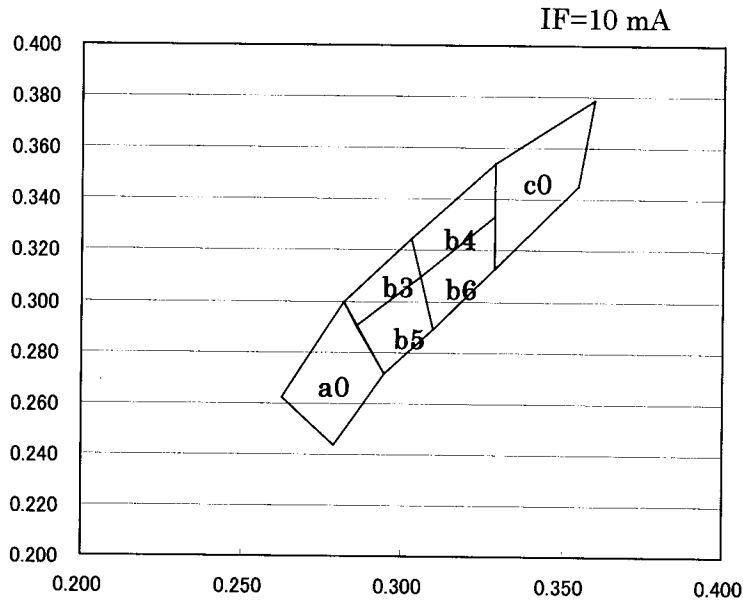


(A) Recommended circuit.
 (B) The difference of brightness between the LED could be found due to the V_f characteristics of each LED.

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Classification of Chromatic coordinates



Ranks	x	y
a0	0.275	0.247
	0.291	0.275
	0.278	0.304
	0.260	0.266
b3	0.282	0.294
	0.302	0.314
	0.299	0.329
	0.278	0.304
b4	0.302	0.314
	0.325	0.338
	0.325	0.359
	0.299	0.329

Ranks	x	y
b5	0.291	0.275
	0.306	0.293
	0.302	0.314
	0.282	0.294
b6	0.306	0.293
	0.325	0.317
	0.325	0.338
	0.302	0.314
c0	0.325	0.317
	0.350	0.350
	0.355	0.383
	0.325	0.359

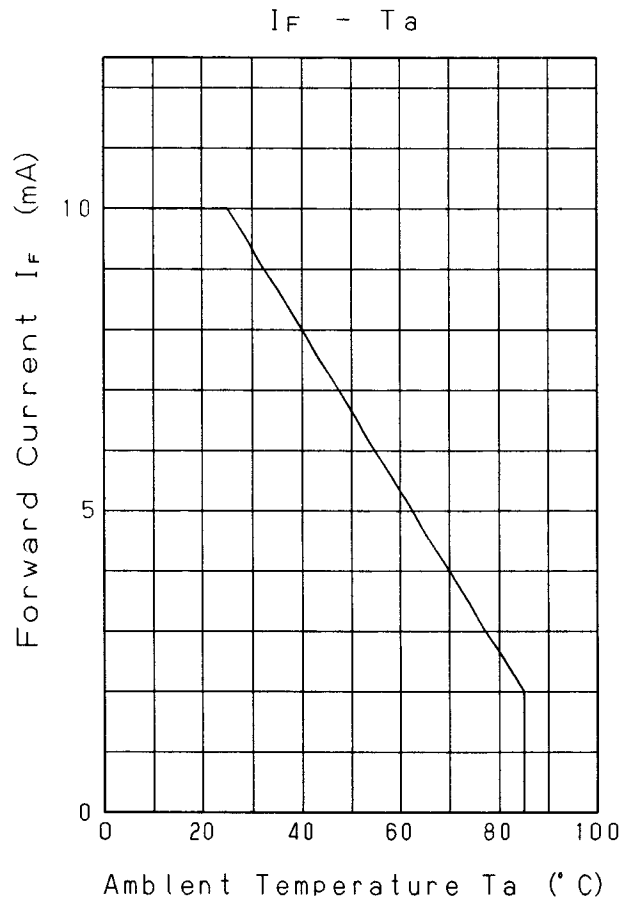
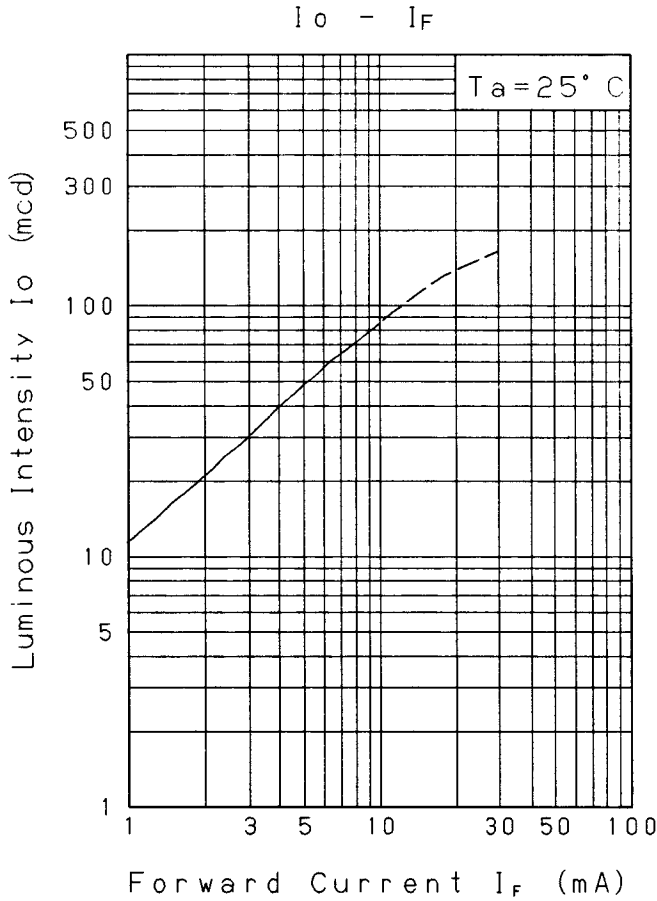
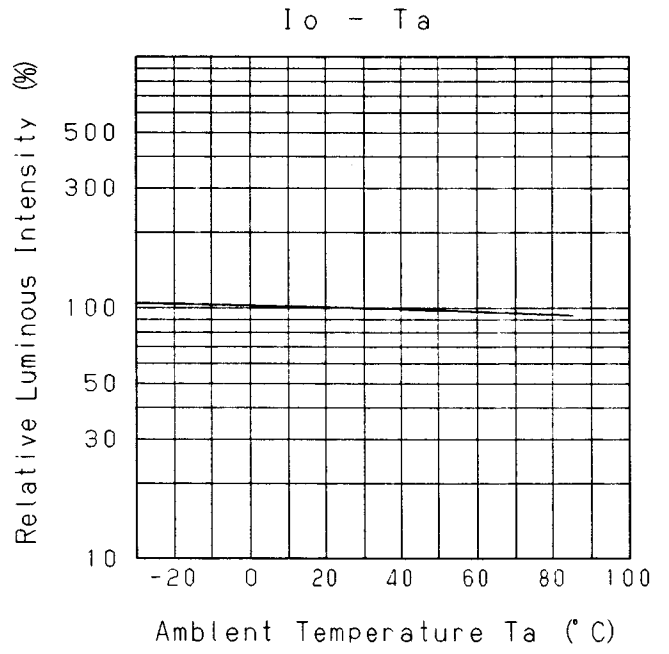
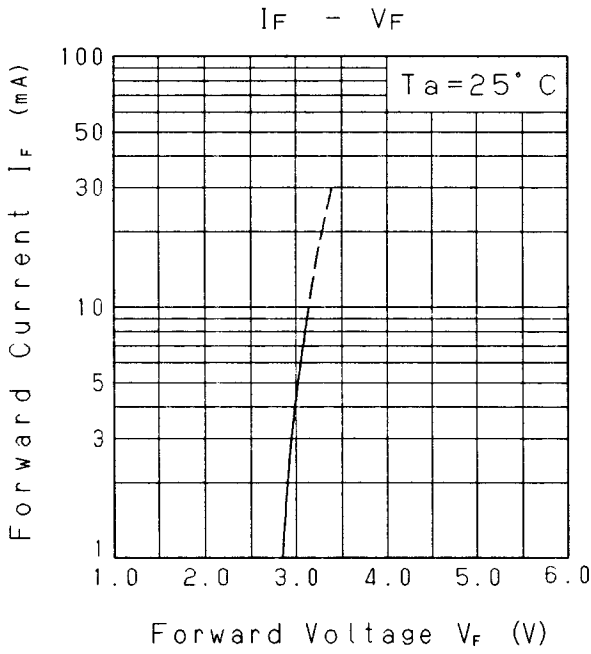
1. Chromatic coordinates will change by the level of operating current.
2. 6ranks classification of chromatic coordinates is available.
3. Tolerance of chromatic coordinates measurement is ± 0.02 .

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DEVELOPMENT SPECIFICATION

P/N: LNJ012X8BRA



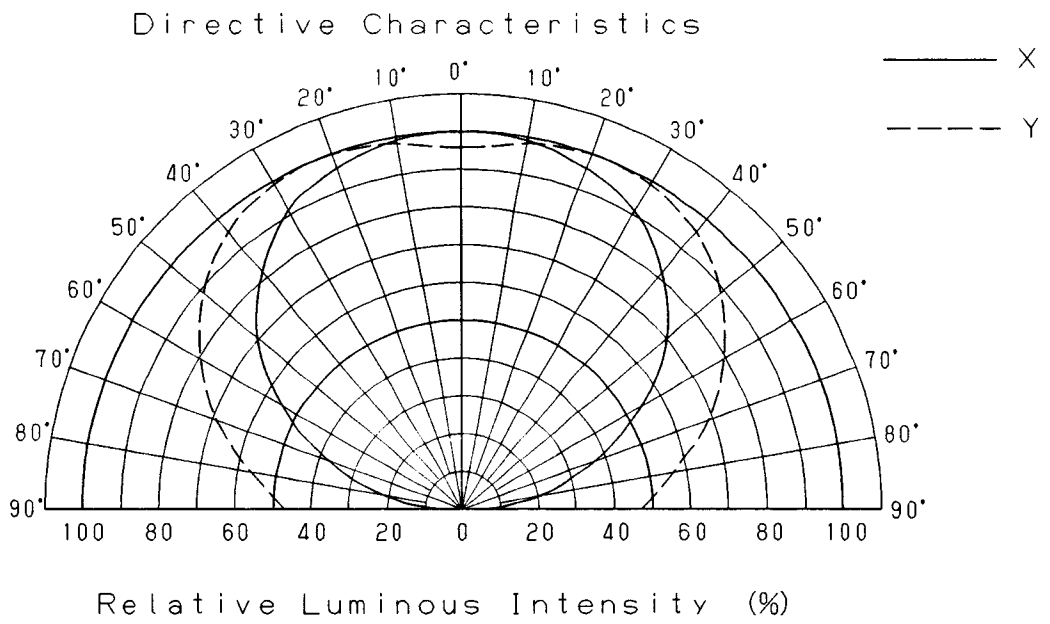
Oct. 2.2002

Feb.21.2003

Approved	Checked	Designed
		<i>T. Takata</i>

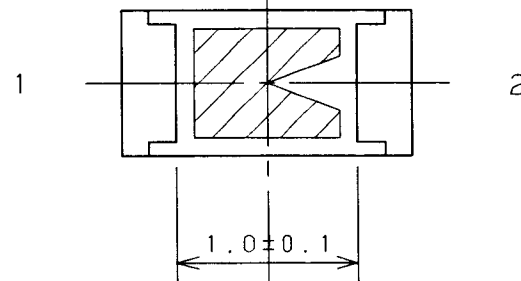
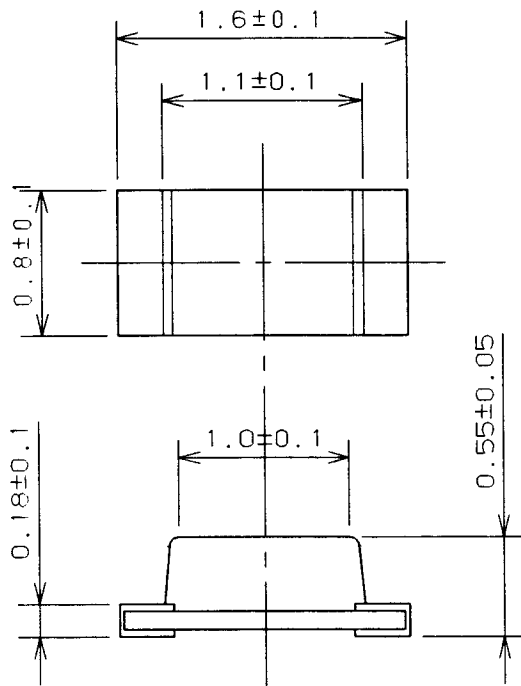
DEVELOPMENT SPECIFICATION

P/N: LNJO12X8BRA

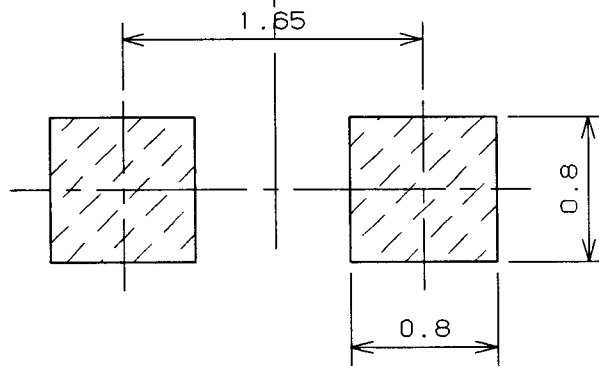


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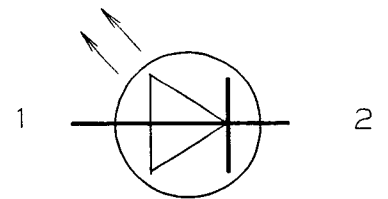
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Recommended land layout



Polarity



1. Anode
2. Cathode

(NOTE)

- 1. Tolerance unless specified is ± 0.15 .
- 2. Unit: mm

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