SPECIFICATIONS FOR NICHIA UV LED

MODEL : **NSHU550E**
DATE : Sep. 18, 1998

NICHIA AMERICA OFFICE
IN SAN JOSE

発行
'98.9.18
日亜化学工業

NICHIA CHEMICAL INDUSTRIES, LTD.

These specifications shall be applied to the UV-Lamp (LED or LEDs), NSHU550E, which is supplied by Nichia Chemical Industries, Ltd. (Nichia) to (User).

1.SPECIFICATIONS

(1) Absolute Maximum Rating

(Ta=25℃)

Item	Symbol	Absolute Maximum Rating	Unit
Forward Current	I_F	15	mA
Pulse Forward Current	I_{FP}	30	mA
Allowable Reverse Current	I_R	85	mA
Power Dissipation	P_D	60	mW
Operating Temperature	T_{opr}	−30 ～ +80	℃
Storage Temperature	T_{stg}	−40 ～ +100	℃
Lead Soldering Temperature	T_{sol}	260±5℃ for 5sec. (3.0mm from the base of the lead)	℃

I_{FP} Conditions : Pulse Width ≦ 10msec. and Duty ≦ 1/10

(2) Initial Electrical/Optical Characteristics

(Ta=25℃)

Item	Symbol	Condition	Min	Typ	Max	Unit
Forward Voltage	V_F	I_F=10[mA]	−	3.9	4.0	V
Optical Power Output	P_O	I_F=10[mA]	−	1000	−	μW
Peak Wave Length	λ_P	I_F=10[mA]	−	370	−	nm
Spectrum Half Width	$\Delta\lambda$	I_F=10[mA]	−	12	−	nm

※ Measurement Uncertainty of the Optical Power Output : ±10%

2.TYPICAL INITIAL OPTICAL/ELECTRICAL CHARACTERISTICS

Please refer to figures No.STLZ-A800891, No.STLZ-A800901

3.OUTLINE DIMENSIONS

Please refer to figure No.STLZ-A800841

4.LOT NUMBER

The first six digits number shows **lot number.**

The lot number is composed of the following characters;

○□××××−△■

○ − Year (7 for 1997, 8 for 1998)

□ − Month (1 for Jan., 9 for Sep., A for Oct., B for Nov.)

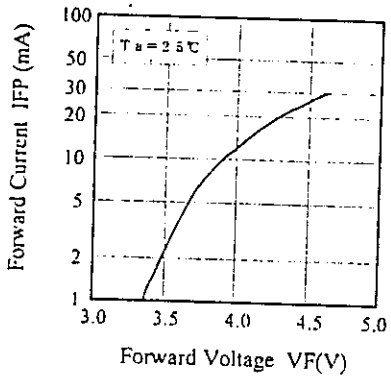
××××−△■ − Nichia's Product Number

発行 '98.9.15

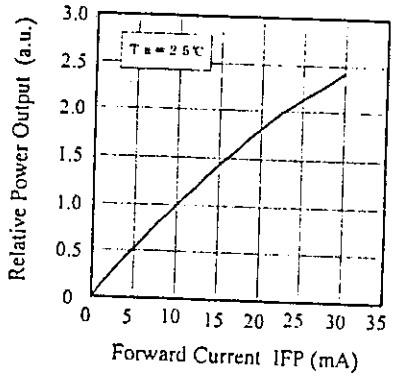
5.PACKAGING

- The LEDs are packed in paper (1mm thick) boxes after packaging in anti-electrostatic polyethylene bags. According to the total delivery amount, cardboard boxes will be used to protect the LEDs from mechanical shocks during transportation. Please refer to figure No.STLZ-A800861. The label on the minimum packing unit bag shows;
  Part Number, Quantity
- The boxes are not water resistant and they must be kept away from water and moisture.
- If a box shows noticeable damage upon arrival at the User's warehouse, it is recommended to make a notice to Nichia within two weeks after arrival of the products. If notice of damage exceeds 2 weeks, it will be treated in a manner shown in term 7.

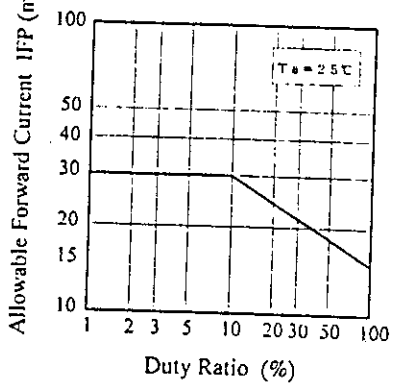
■ Forward Voltage vs. Forward Current



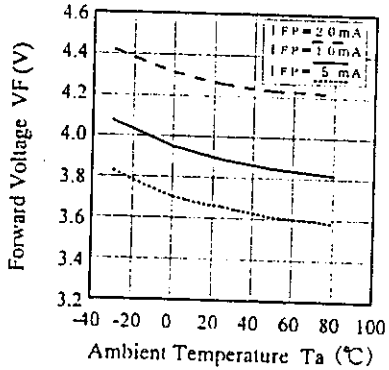
■ Forward Current vs. Relative Power Output



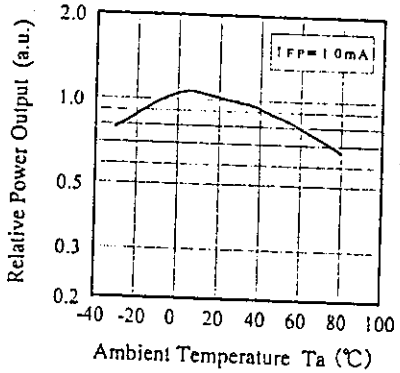
■ Duty Ratio vs. Allowable Forward Current



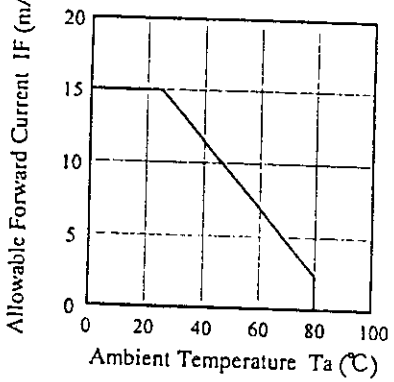
■ Ambient Temperature vs. Forward Voltage



■ Ambient Temperature vs. Relative Power Output



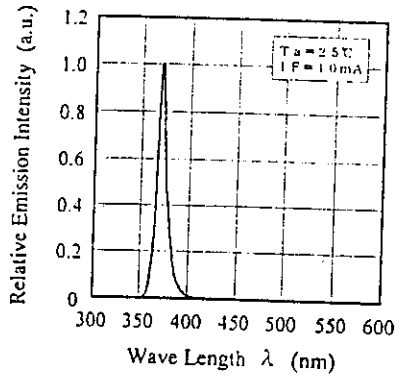
■ Ambient Temperature vs. Allowable Forward Current



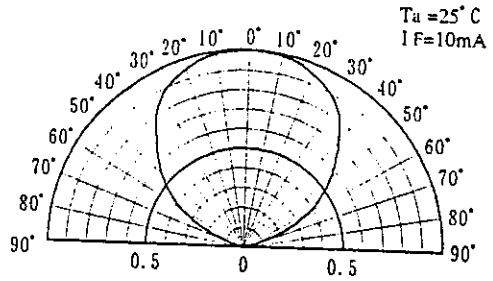
Rev.1	Section ST	Approve Bando	Check Yamanaka	Draw Tsubouchi	Scale
Rev.2					
Rev.3	Date	Jul.15.1998			
Rev.4	Model	NSHUxxxE			Rev
NICHIA CHEMICAL INDUSTRIES,LTD.	Title	TYP.CHARACTERISTICS			
	No.	STLZ-A800891			

STLS-8340

■ Spectrum



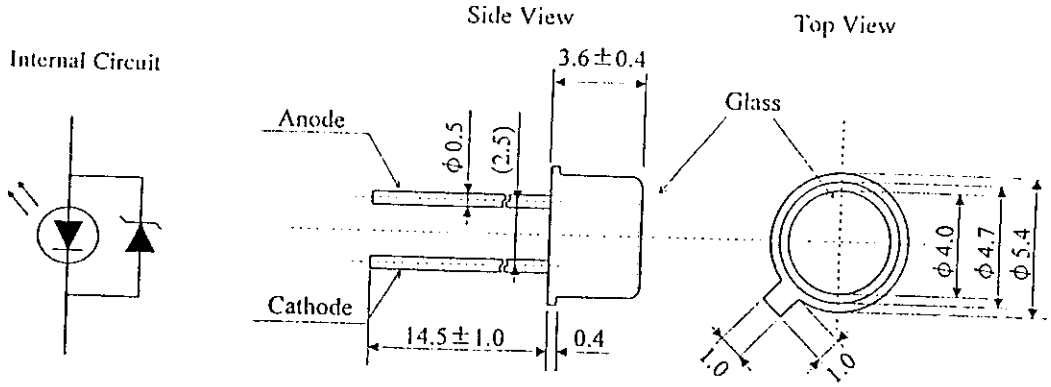
■ Directivity



NSHU550E

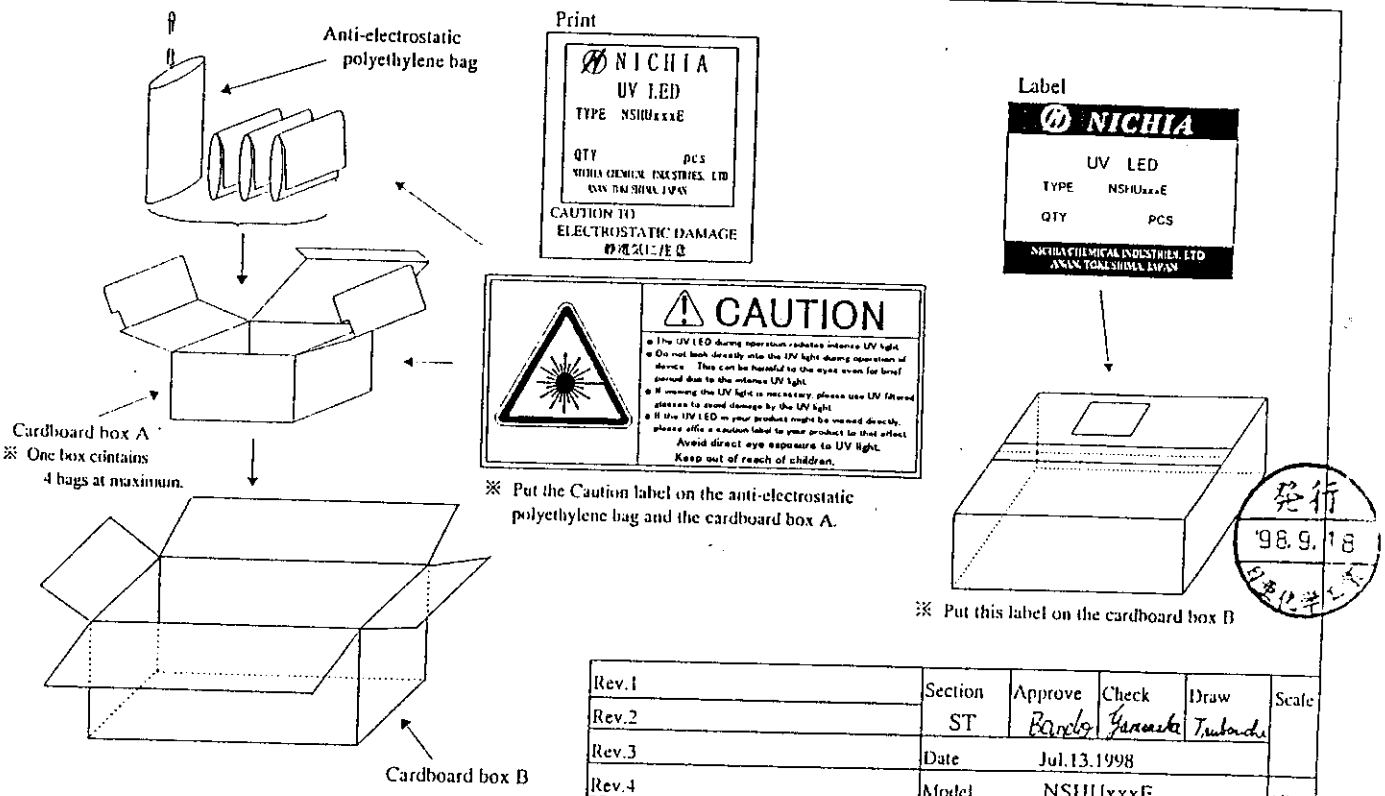
Rev.1	Section ST	Approve Bando	Check Yamanaka	Draw Tsubouchi	Scale
Rev.2					
Rev.3	Date Jul.15.1998				
Rev.4	Model NSHU550E				Rev
NICHIA CHEMICAL INDUSTRIES,LTD.	Title TYP.CHARACTERISTICS				
	No. STLZ-A800901				

STLS-8340



※ NICHIA UV LED has a zener diode built in as a protection circuit against static electricity.

Rev.1	Section	Approve	Check	Draw	Scale
Rev.2	ST	Bando	M.Asada	Tsubouchi	
Rev.3	Date	Jul.13.1998			
Rev.4	Model	NSHU550E			Allow
NICHIA CHEMICAL INDUSTRIES,LTD.	Title	OUTLINE DIMENSIONS			±0.2
	No.	STLZ-A800841			



※ Put the Caution label on the anti-electrostatic polyethylene bag and the cardboard box A.

※ Put this label on the cardboard box B

※ The size of the cardboard box B depends on the number of the cardboard box A.
One box contains 10 cardboard box A at maximum.

Rev.1	Section	Approve	Check	Draw	Scale
Rev.2	ST	Bando	Yamada	Tsubouchi	
Rev.3	Date	Jul.13.1998			
Rev.4	Model	NSHUxxxE			Allow
NICHIA CHEMICAL INDUSTRIES,LTD.	Title	PACKING			
	No.	STLZ-A800861			