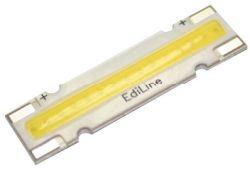
5W EdiLine II



The linear structure of EdiLine II Series results in an easier heat dissipation requirement, making versatile fixtures design possible as well as an overall cost saving benefit. The special twin connectors design allows EdiLine to be assembled easily with screws in either serial order as a linear light source or parallel order as a planar light source.

Features

- Linear Packaging Design
- High Efficiency
- Low Power Consumption
- Long Operating Lifespan
- Easy Installation with Screws

Typical Applications

- General lighting
- Contour lights
- Ceiling lights
- Decoration lights
- Architectural lighting

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Table of contents

EdiLine Coding Guideline ---------- 3
Package Outline ---------- 4
Absolute Maximum Ratings---------- 4
Optical and Electrical Characteristic---------- 5
Color Spectrum ---------- 8
Electrical and Optical Curves ---------- 9
Package Specification ---------- 11

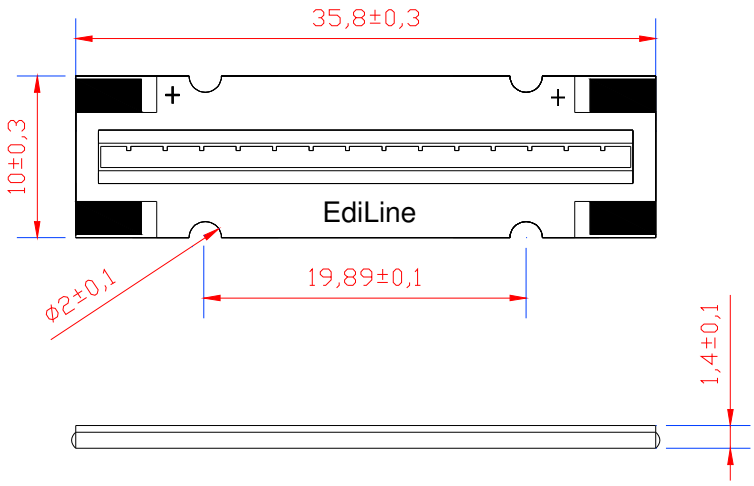
EdiLine Coding Guideline

E	L	A	W	-	5	A	A	0	-	B	0 0
X1		X2	X3		X4	X5	X6	X7		X8	X9

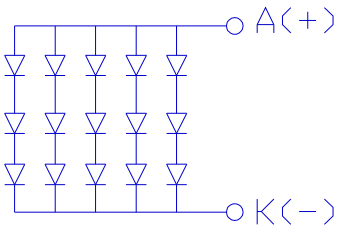
X1 LED Item		X2 Item		X3 Emitting Color		X4 Power		X5 Material	X6 Circuit Type	
Code	Type	Code	Type	Code	Type	Code	Type		Code	Type
EL	EdiLine	E	Type I	W	White	3	3W		A	3 Parallel with 5 Serial
		A	Type II	R	Red	5	5W		B	3 Parallel with 10 Serial
		H	Heatsink	T	True Green					
				B	Blue					

X7 Connector Type	X8 Phosphor Item	X9 Version	
		Code	Type
		01	Ver 1.0
		02	Ver 2.0

Package Outlines



Circuit diagram



Notes:

1. All dimensions are in mm.
2. Drawings are not to scale.
3. It is strongly recommended that the temperature of ALPCB be not higher than 55℃.

Absolute Maximum Ratings

Parameter	Symbol	Rating	Units/Color
DC Forward Current	I_F	**500mA**	W、B、T
		600mA	R
Peak pulse current;(tp≦100μs, Duty cycle=0.25)	I_{pulse}	**1000**	mA
Arc Voltage	V_A	**20**	V
LED junction Temperature	T_J	**125**	℃
Operating Temperature	T_{opr}	**-30 ~ +110**	℃
Storage Temperature	T_{stg}	**-40 ~ +120**	℃
ESD Sensitivity	V_B	**500**	V

Luminous Flux Characteristics (Tj=25℃):

Part Name	Color	Test Current	Flux			Units
			Min.	Typ.	Max.	
ELAW-5AA0-B00	White	500mA	***130***	***220***	***--***	*lm*
ELAR-5DA0-A00	Red	600mA	***50***	***80***	***--***	*lm*
ELAT-5AA0-A00	True Green	500mA	***100***	***180***	***--***	*lm*
ELAB-5AA0-A00	Blue	500mA	***35***	***60***	***--***	*lm*

Forward Voltage Characteristics (Tj=25℃):

Part Name	Color	Test Current	V_F			Units
			Min.	Typ.	Max.	
ELAW-5AA0-B00	White	500mA	***--***	***--***	***12.0***	*V*
ELAR-5DA0-A00	Red	600mA	***--***	***--***	***9.0***	*V*
ELAT-5AA0-A00	True Green	500mA	***--***	***--***	***12.0***	*V*
ELAB-5AA0-A00	Blue	500mA	***--***	***--***	***12.0***	*V*

Dominant Wavelength or Color Temperature Characteristics (Tj=25℃):

Part Name	Color	Test Current	λd/CCT			Units
			Min.	Typ.	Max.	
ELAW-5AA0-B00	White	500mA	***5,200***	***--***	***7,200***	*K*
ELAR-5DA0-A00	Red	600mA	***620***	***--***	***630***	*nm*
ELAT-5AA0-A00	True Green	500mA	***515***	***--***	***535***	*nm*
ELAB-5AA0-A00	Blue	500mA	***460***	***--***	***475***	*nm*

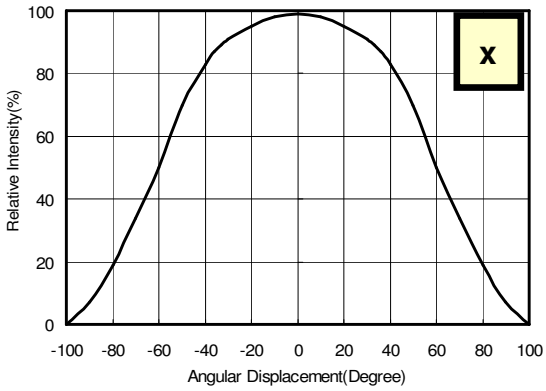
Temperature Coefficient of Forward Voltage & Thermal Resistance Junction to Case Characteristics (Tj=25℃) :

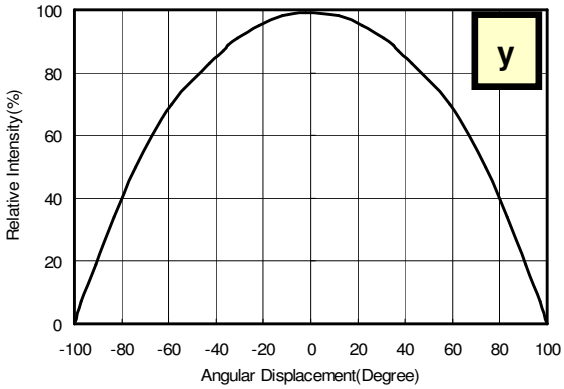
Part Name	Color	Test Current	$\triangle V_F/\triangle T$		$R\theta_{J-B}$	
			Typ.	Units	Typ.	Units
ELAW-5AA0-B00	White	500mA	***-2***	*mV/℃*	***5***	*℃/W*
ELAR-5DA0-A00	Red	600mA	***-2***	*mV/℃*	***5***	*℃/W*
ELAT-5AA0-A00	True Green	500mA	***-2***	*mV/℃*	***5***	*℃/W*
ELAB-5AA0-A00	Blue	500mA	***-2***	*mV/℃*	***5***	*℃/W*

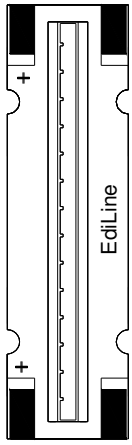
Emission Angle Characteristics (Tj=25℃):

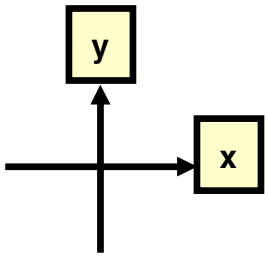
Part Name	Color	Test Current	2Θ½(Typ.) X direction	2Θ½(Typ.) Y direction	Units
ELAW-5AA0-B00	White	500mA	***120***	***130***	Degrees
ELAR-5DA0-A00	Red	600mA	***120***	***130***	Degrees
ELAT-5AA0-A00	True Green	500mA	***120***	***130***	Degrees
ELAB-5AA0-A00	Blue	500mA	***120***	***130***	Degrees

Typical Radiation Pattern









Notes

1. **Flux is measured with an accuracy of ± 10%.**
2. **CCT selection acc. to CCT groups and an accuracy of ± 300K**
3. **Forward Voltage is measured with an accuracy of ± 0.2V**
4. **Wavelength is measured with an accuracy of ± 1nm**
5. **White、True green and Blue emitters are built with InGaN**
6. **Red emitters are built with AlGaInP**

Operating life, mechanical, and environmental tests performed on EdiLine package:

Stress Test	Stress Conditions	Stress Duration	Failure Criteria
Room Temperature Operating Life	25℃, I_F = max DC (Note 1)	1000 hours	Note 2
High Temperature High Humidity	85℃ / 85%RH	1000 hours	Note 2
Thermal Shock	-40 / 120℃, 20 min dwell /＜20 sec transfer	200 cycles	No catastrophics

Notes

1. **Depending on the maximum derating curve.**
2. **Failure Criteria:**

Electrical failures

V_F shift >=10%

Light Output Degradation

% Iv shift >= 30% @1,000hrs

Visual failures

Broken or damaged package

Dimension out of tolerance

Optical Curves-Spectrum

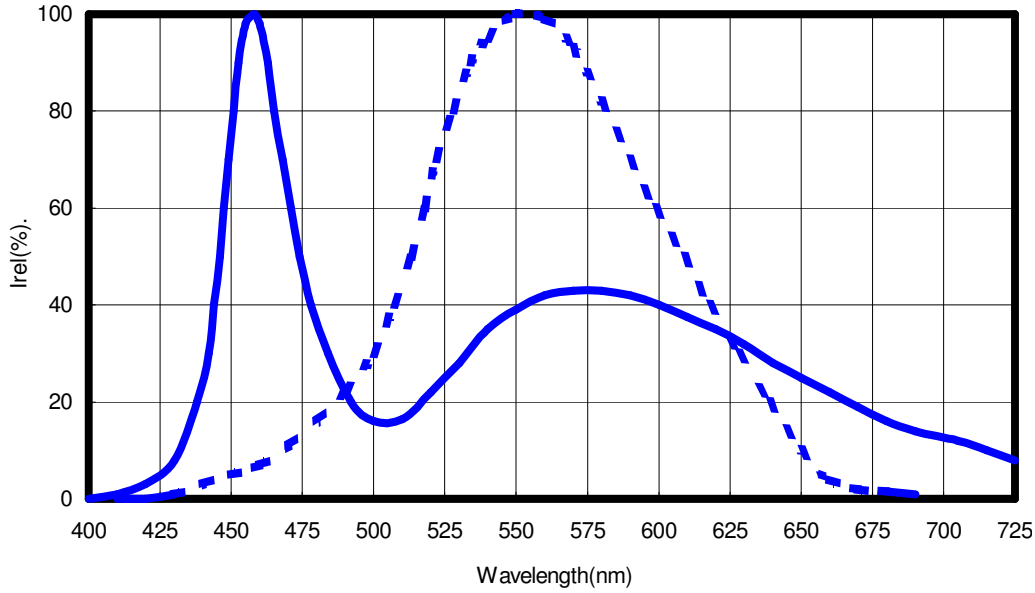


Figure 1. White color spectrum of typical CCT、standard eyes response to dotted curve line and CRI≒75 at T_J=25℃.

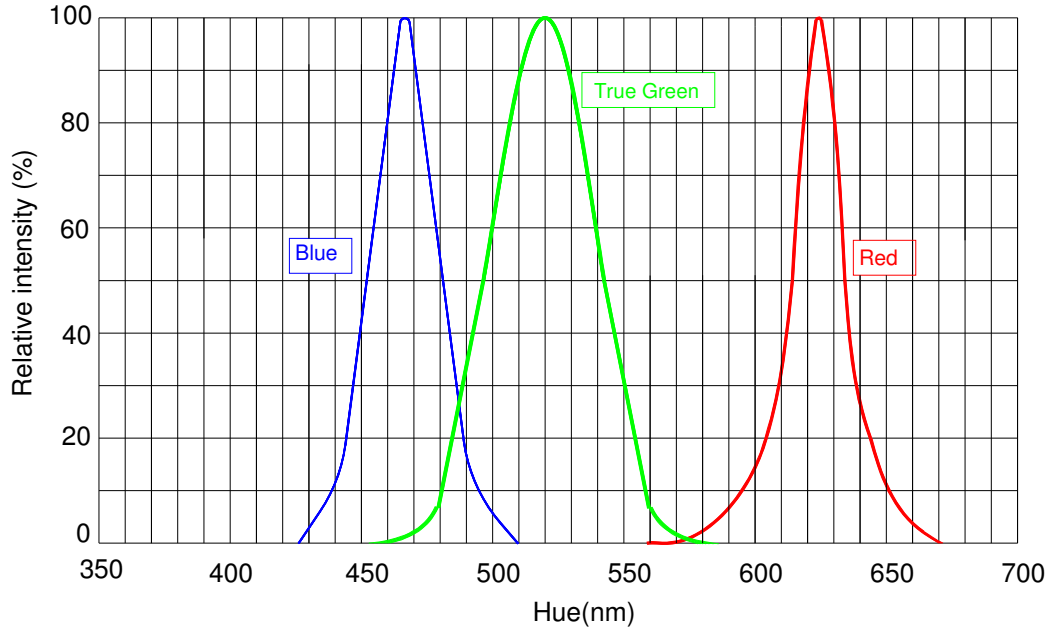
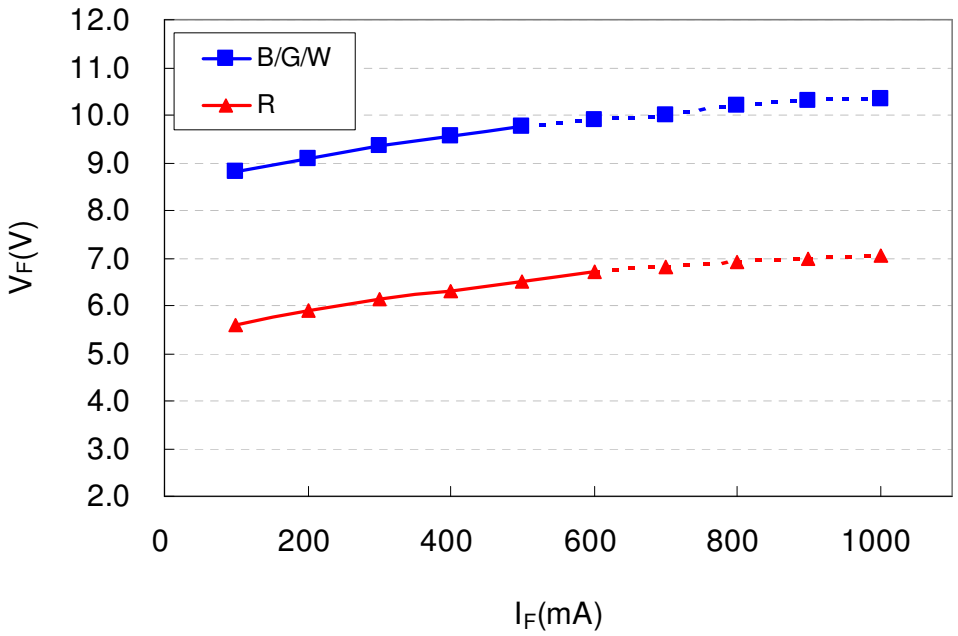


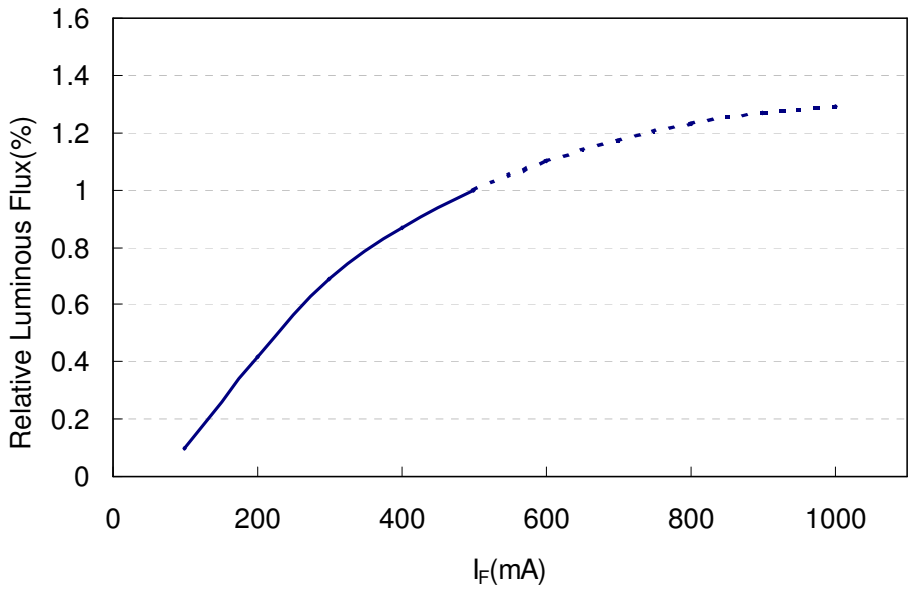
Figure 2.Relative Intensity vs. Wavelength for all Color at T_J=25℃.

Typical Optical and Electrical Curves

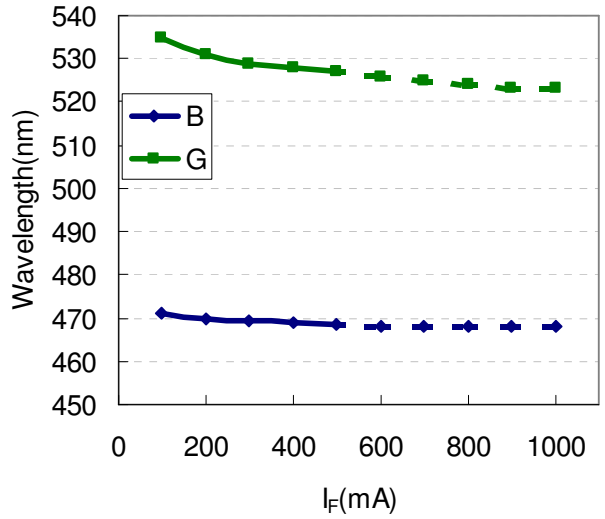


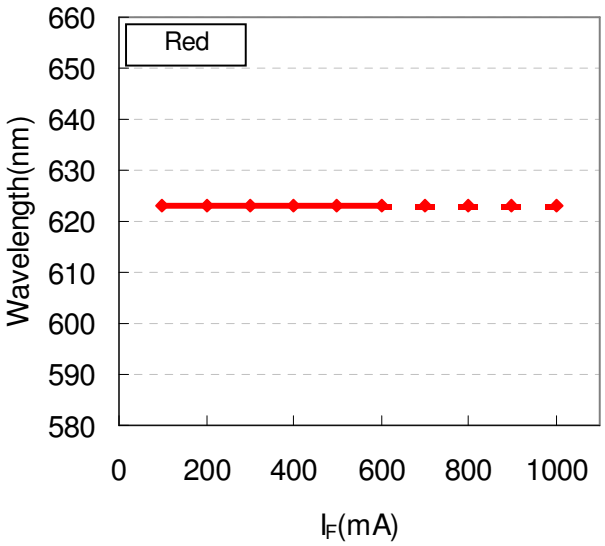
Operating Current & Forward Voltage

Typical Optical and Electrical Curves



Forward Current & Luminous Flux





Forward Current & Wavelength

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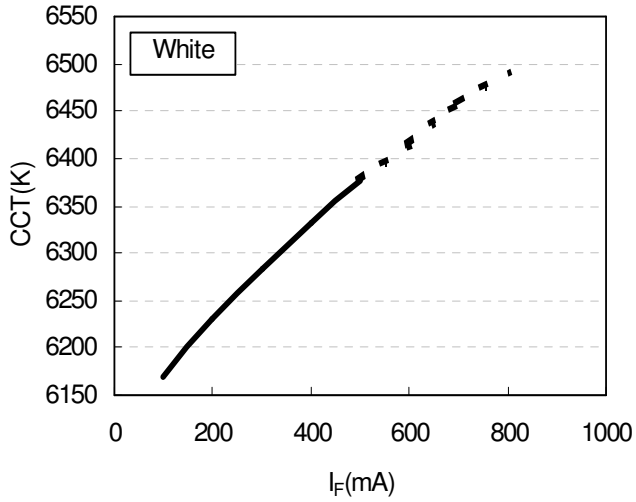
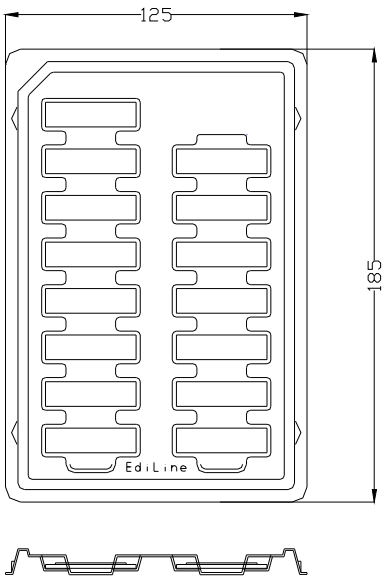
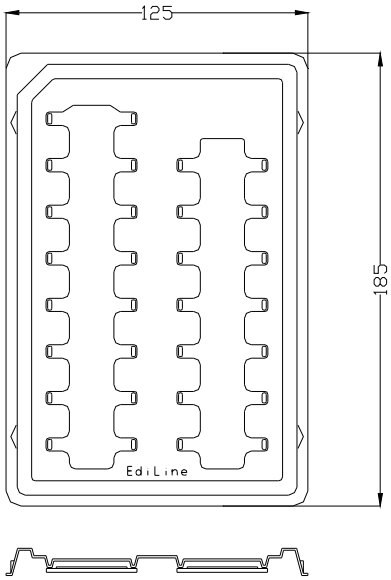


Forward Current & CCT

Package Specifications



Top Cover

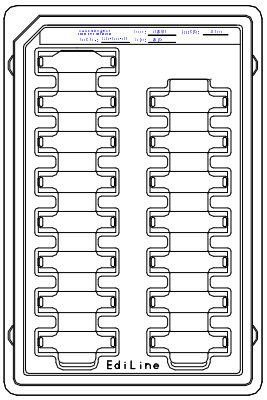
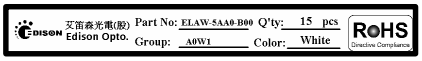
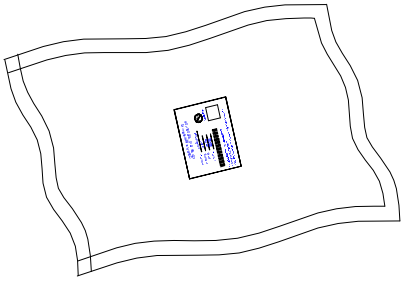
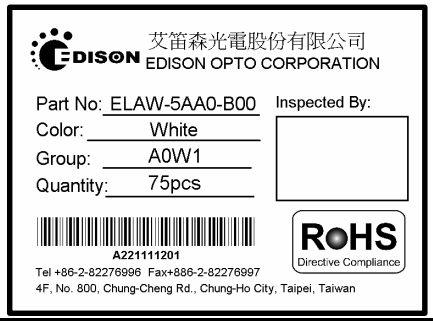
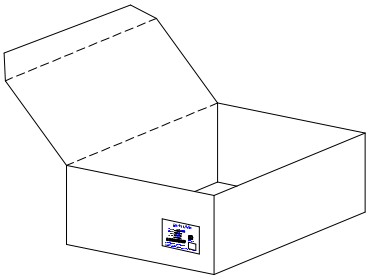
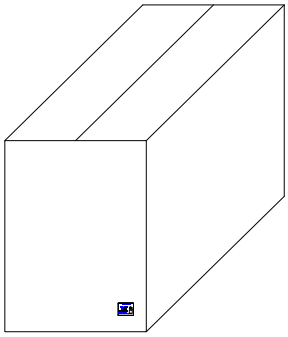


Bottom Cover

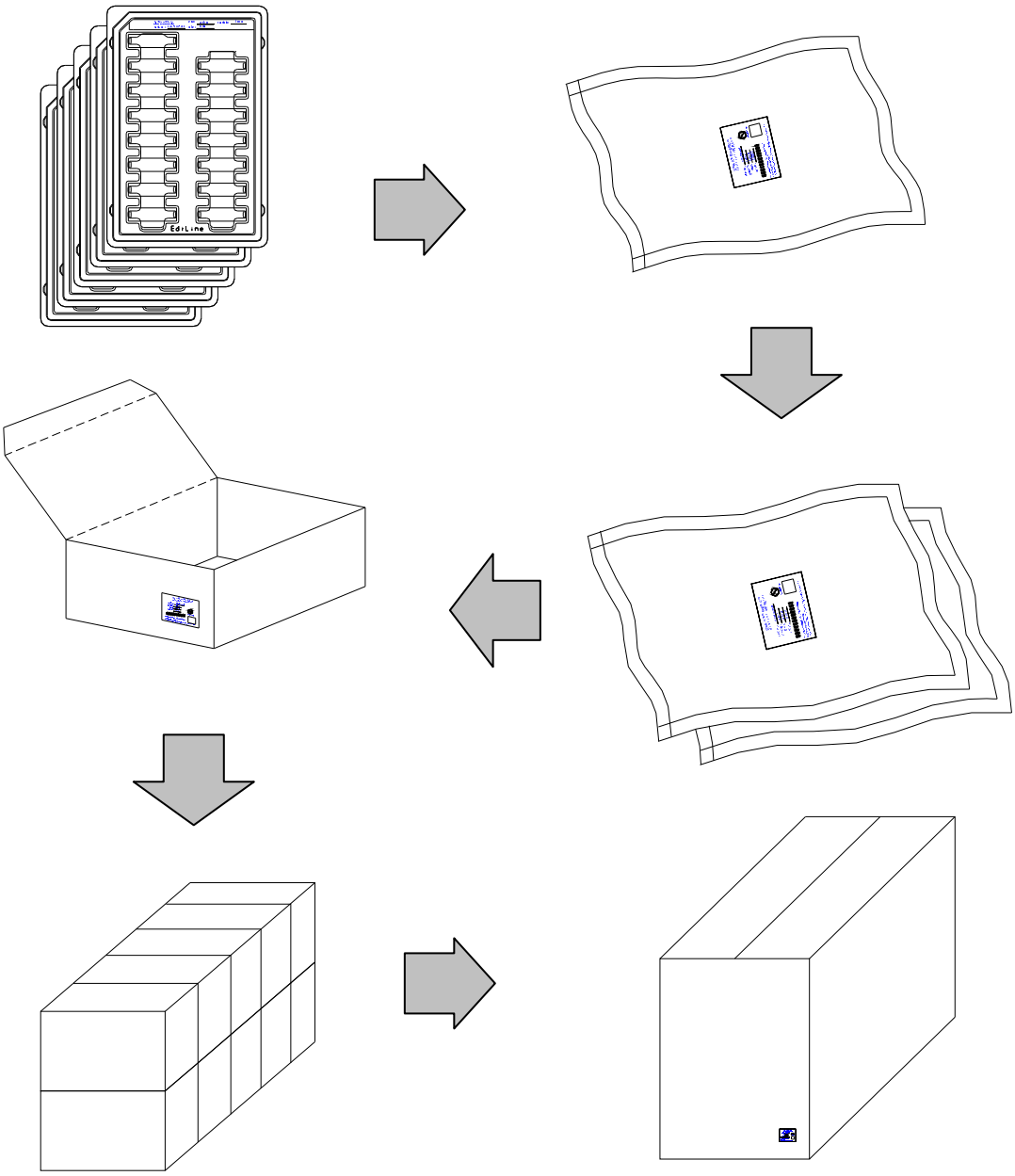
Notes

1. **Inner antistatic bag standard.**
2. **There are 15pcs emitters per tray.**
3. **5 trays per bag.**
4. **2 bags per box.**
5. **Package storage condition will be limited in temperature 20~30℃ RH 40~50%**

Label explanation

Level	Sign	Label
Tray Label		
ESD Shielding Bag Label		
Inner Box Label		
Outer Box Label		

Package Step



Packaging Information

Item	Quantity	Total	Dimensions(L* W * H)
Tray	15 pcs/tray	15 pcs	125*185*9.3mm
ESD Shielding Bag	5 tray/bag	75 pcs	200*330*0.1mm
Inner Box	2 bag/box	150 pcs	240*170*95mm
Outer Box	10 inner box/outer box	1500 pcs	488*260*36.4mm