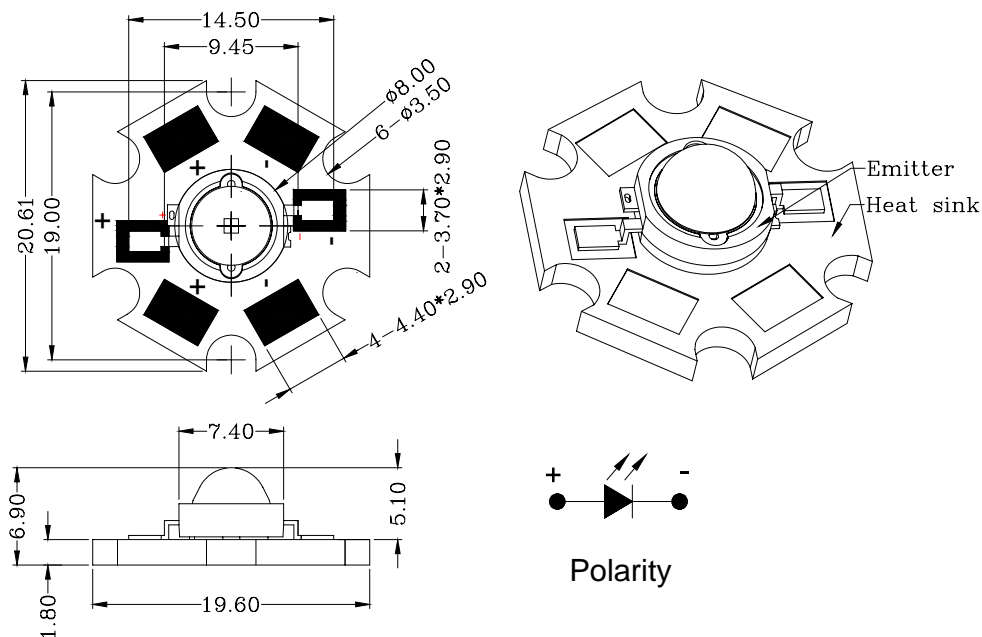


**Features:**

1. Input power: 1W.
2. Chip material: InGaN, Flip chip.
3. Emitted color: White.
4. High lumen output.
5. High flux density.
6. Low power consumption.
7. Efficient heat transfer.
8. With heat sink.

**Applications:**

1. Torch.
2. Head Light.
3. Architectural Lighting.
4. LCD Backlight.

**Package dimensions :****Notes:**

1. All dimensions are in millimeters.
2. Tolerance is  $\pm 0.5$ mm unless otherwise specified.

**Absolute maximum ratings( $T_J=25$  )**

Parameter	Symbol	Rating	Unit
Power Dissipation	$P_D$	1.0	W
DC Forward Current* <sup>1</sup>	$I_F$	350	mA
Peak Pulsed Forward Current* <sup>2</sup>	$I_{FP}$	1.0	A
LED Junction Temperature	$T_J$	130	°C
Operating Temperature	$T_{opr}$	-30~120	°C
Storage Temperature	$T_{stg}$	-40~120	°C
Reverse Voltage	$V_R$	5	V
Soldering Temperature (T=5 sec)	$T_{sol}$	$300 \pm 5$	°C

\*<sup>1</sup>Proper current derating must be followed to keep LED junction temperature ( $T_J$ ) below the maximum.

\*<sup>2</sup>Condition for  $I_{FP}$  is pulsed with 1/10 duty and 0.1msec width.

**Electrical & Optical Characteristics ( $T_J=25$  )**

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	$V_F$	$I_F = 350\text{mA}$	-	3.5	4.0	V
Total Flux	$\nu$	$I_F = 350\text{mA}$	25	35	-	lm
Color Temperature	CCT	$I_F = 350\text{mA}$	5000	6500	8000	K
Reverse Current	$I_R$	$V_R = 5\text{V}$	-	-	50	$\mu\text{A}$
Thermal Resistance, Junction To Case	$R_{J-C}$	$I_F = 350\text{mA}$	-	15	-	/W
Viewing Angle	$2\ 1/2$	$I_F = 350\text{mA}$	-	140	-	degree
Chromaticity Coordinates	x	$I_F = 350\text{mA}$	-	0.32	-	
	y	$I_F = 350\text{mA}$	-	0.31	-	

Typical electro-optical characteristics curves

Fig.1 RELATIVE INTENSITY VS. WAVELENGTH

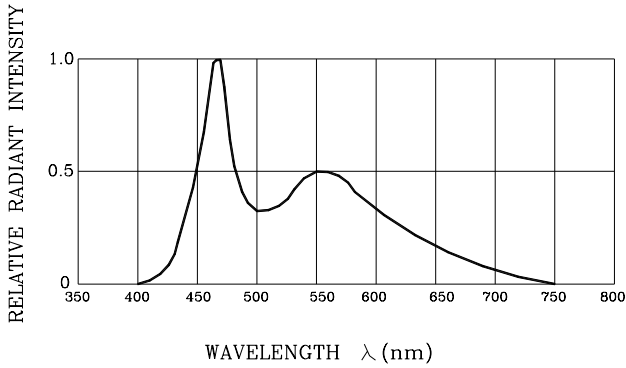


Fig.2 FORWARD CURRENT VS. AMBIENT TEMPERATURE

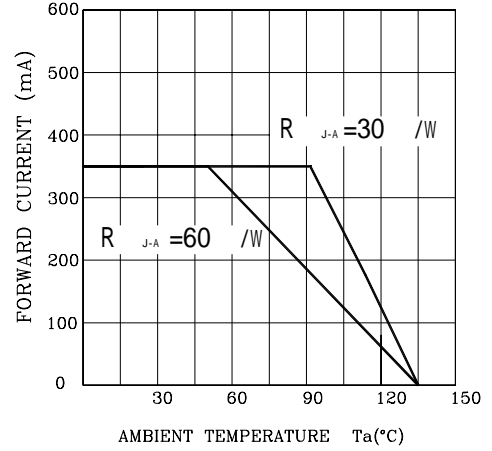


Fig.3 FORWARD CURRENT VS. FORWARD VOLTAGE

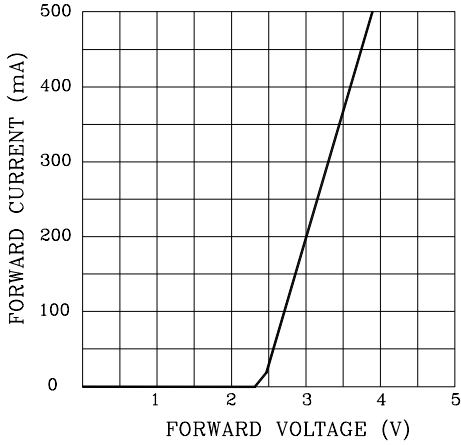


Fig.4 RELATIVE LUMINOUS INTENSITY VS. JUNCTION TEMPERATURE

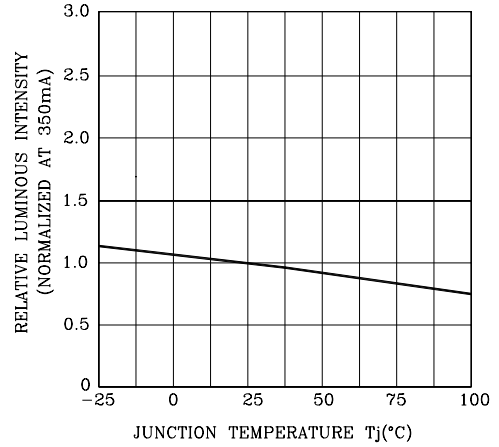


Fig.5 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

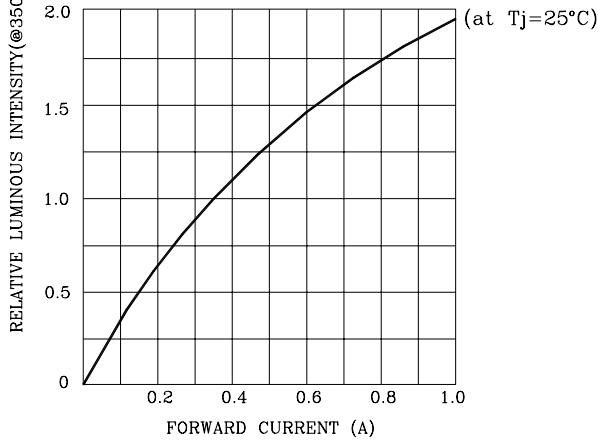
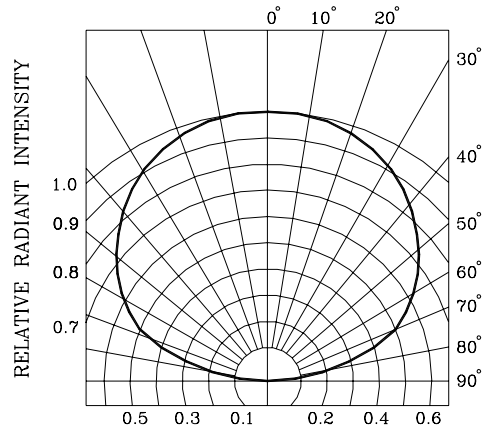
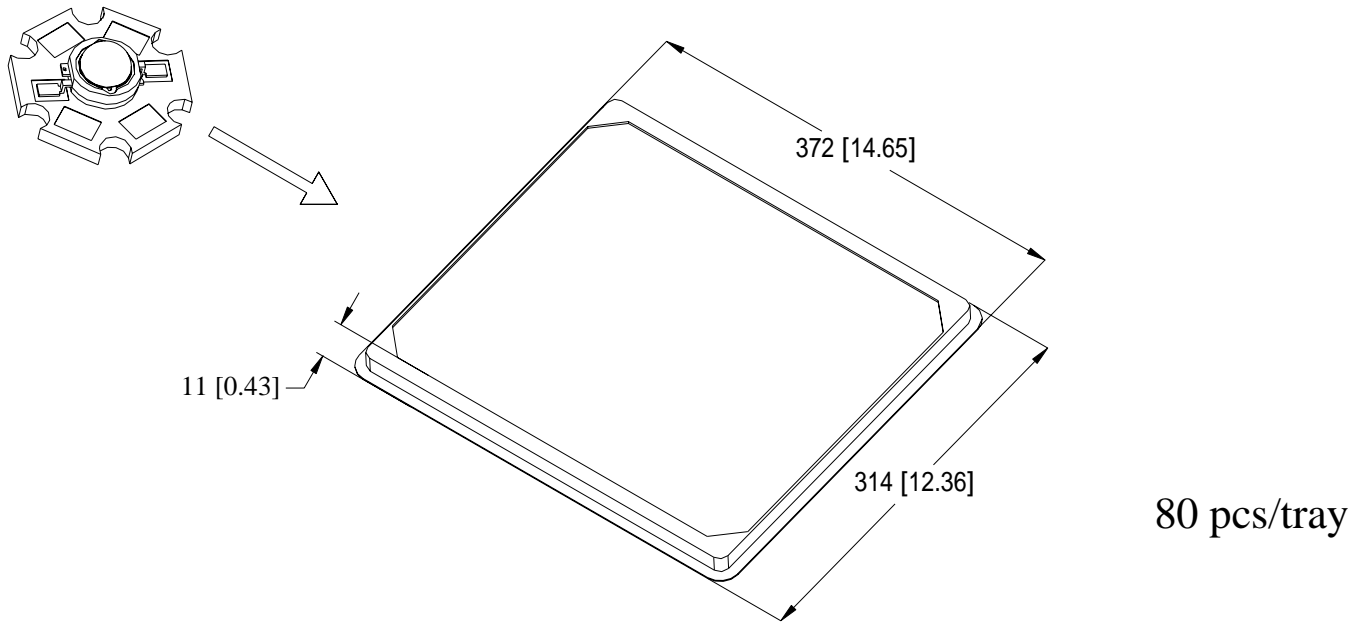


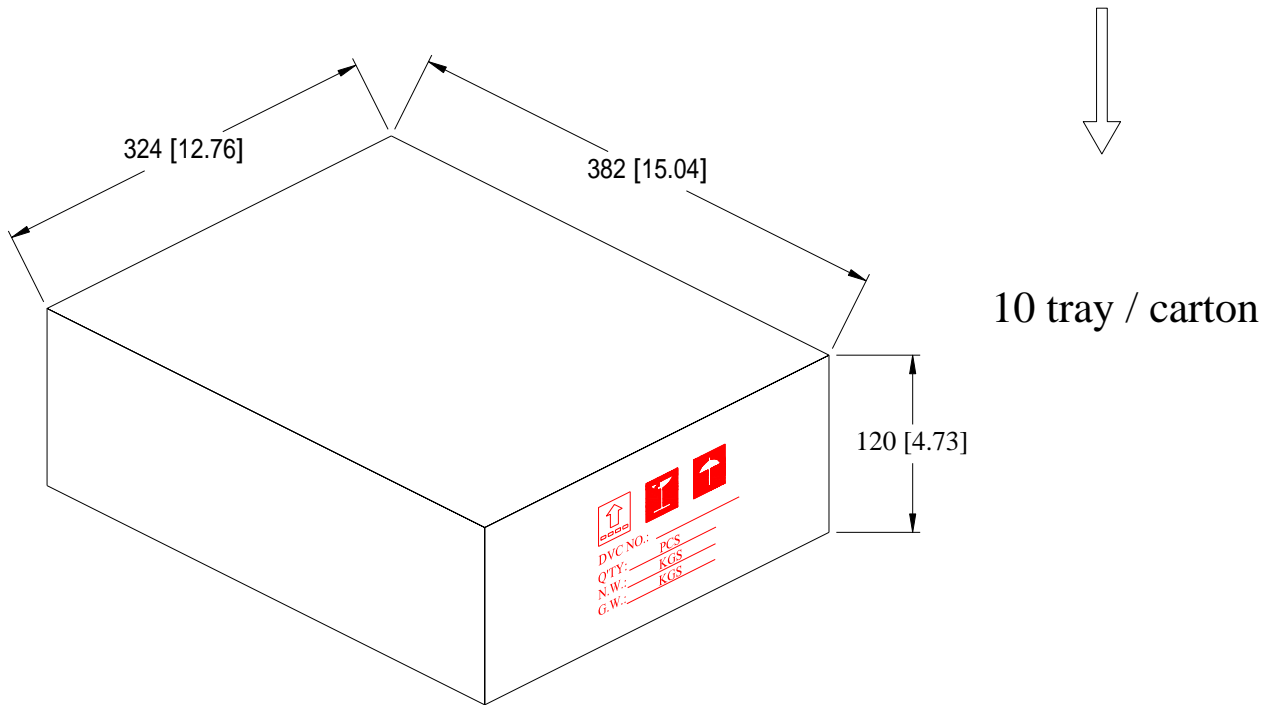
Fig.6 RADIATION DIAGRAM



Package Method : (unit:mm)



Tray



Carton

NOTES : Tray : Tolerance is  $\pm 5$  mm unless otherwise noted.

Carton : Tolerance is  $\pm 10$  mm unless otherwise noted.

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**Total Flux Bin Limits (At 350mA)**

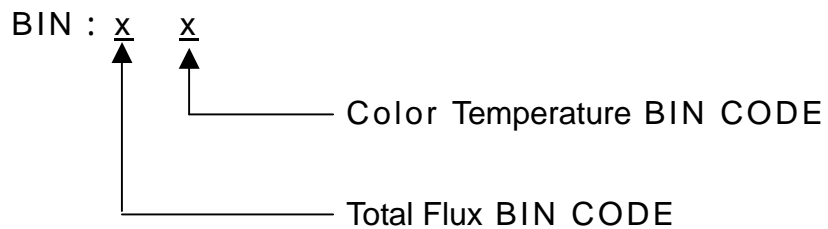
<b>BIN CODE</b>	<b>Min. (lm)</b>	<b>Max. (lm)</b>
K	25	33
L	33	42
M	42	55

Tolerance for each Bin limit is  $\pm 15\%$

**Color Temperature Bin Limits(At 350mA)**

<b>BIN CODE</b>	<b>Min. (K)</b>	<b>Max. (K)</b>
4	5000	6000
5	6000	7000
6	7000	8000

Tolerance for each Bin limit is  $\pm 500\text{ K}$


**Notes:**

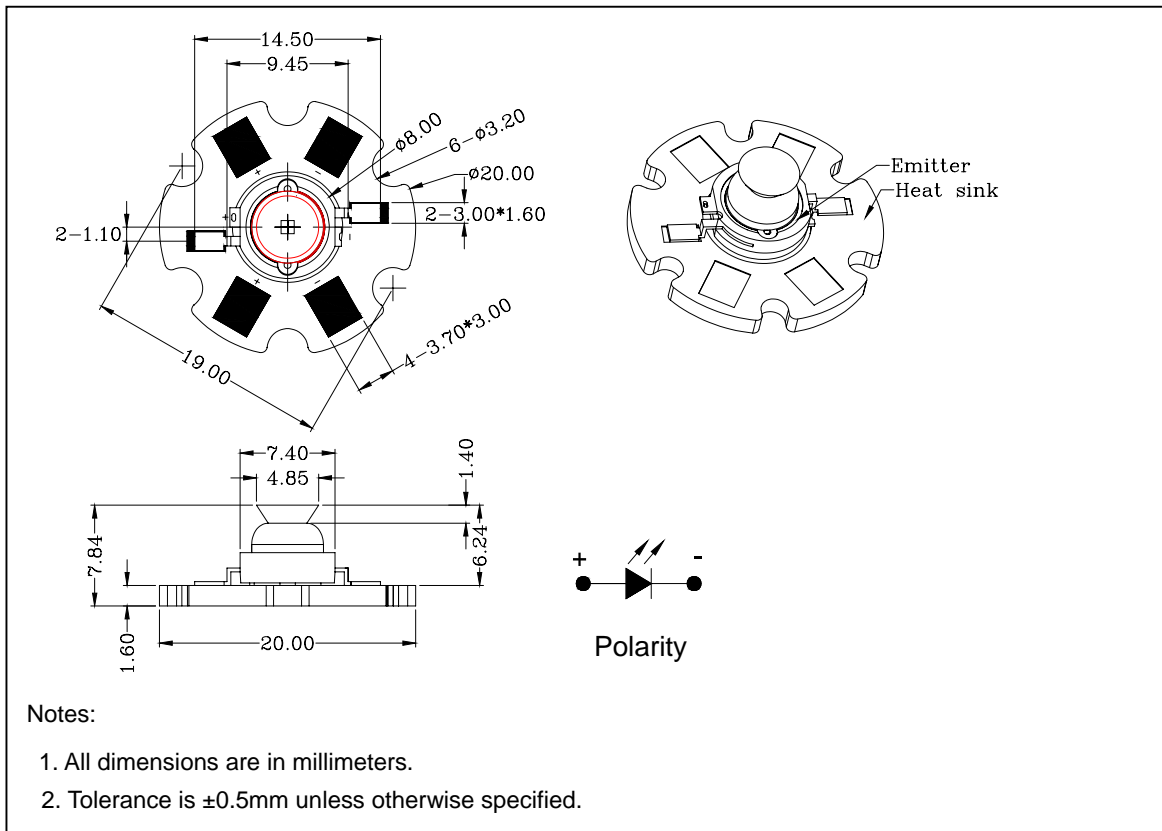
1. Bin categories are established for classification of products.  
Products may not be available in all bin categories.

**Features:**

1. Input power: 1W.
2. Chip material: AlInGaN.
3. Emitted color: White.
4. High lumen output.
5. High flux density.
6. Low power consumption.
7. Efficient heat transfer.

**Applications:**

1. Light engine.
2. Torch.
3. Desk lamp.
4. General lighting.

**Package dimensions :**

**Absolute maximum ratings(Ta=25 )**

Parameter	Symbol	Rating	Unit
Power Dissipation	$P_D$	1.0	W
DC Forward Current* <sup>1</sup>	$I_F$	350	mA
Peak Pulsed Forward Current* <sup>2</sup>	$I_{FP}$	1.0	A
LED Junction Temperature	$T_j$	130	°C
Operating Temperature	$T_{opr}$	-30~120	°C
Storage Temperature	$T_{stg}$	-40~120	°C
Reverse Voltage	$V_R$	5	V
Soldering Temperature (T=5 sec)	$T_{sol}$	300 ± 5	°C

\*<sup>1</sup>Proper current derating must be followed to keep LED junction temperature ( $T_j$ ) below the maximum.

\*<sup>2</sup>Condition for  $I_{FP}$  is pulsed with 1/10 duty and 0.1msec width.

**Electrical & Optical Characteristics LED (Ta=25 )**

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	$V_F$	$I_F = 350\text{mA}$	-	3.5	4.0	V
Total Flux	$\nu$	$I_F = 350\text{mA}$	20	25	-	lm
Color Temperature	CCT	$I_F = 350\text{mA}$	5000	6500	8000	K
Color Rendering Index	CRI	$I_F = 350\text{mA}$	80	-	-	
Reverse Current	$I_R$	5V	-	-	50	$\mu\text{A}$
Thermal Resistance, Junction To Case	$R_{j-c}$	$T_J = 25$ , $I_F = 350\text{mA}$	-	15	-	/W
Viewing Angle	peak	$I_F = 350\text{mA}$	-	75-85	-	degree
Chromaticity Coordinates	x	$I_F = 350\text{mA}$	-	0.32	-	
	y	$I_F = 350\text{mA}$	-	0.31	-	

Typical electro-optical characteristics curves

Fig.1 RELATIVE INTENSITY VS. WAVELENGTH

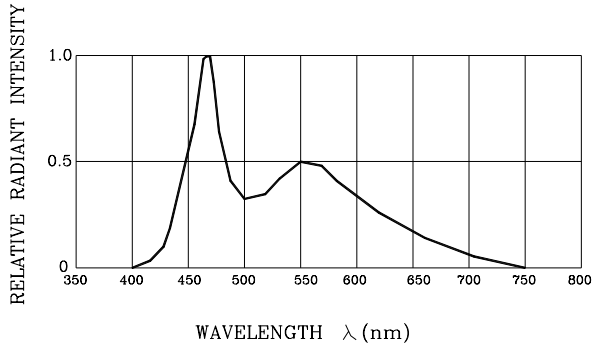


Fig.2 FORWARD CURRENT DERATING CURVE

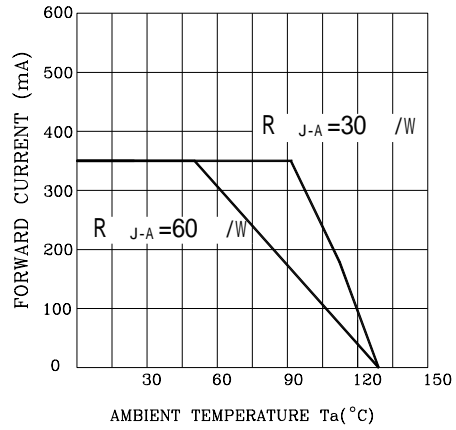


Fig.3 FORWARD CURRENT VS. FORWARD VOLTAGE

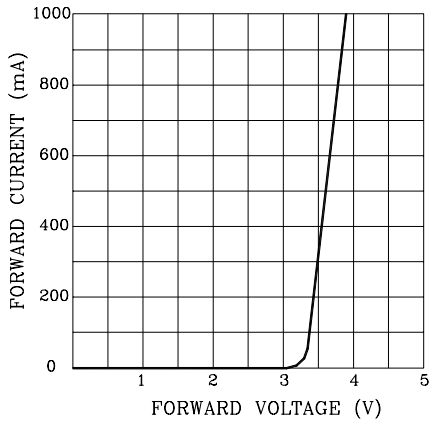


Fig.4 RELATIVE LUMINOUS INTENSITY VS. AMBIENT TEMPERATURE

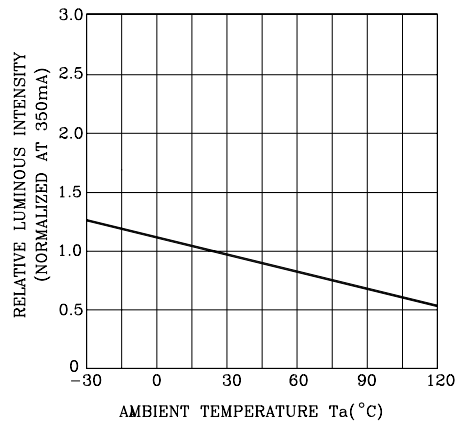


Fig.5 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

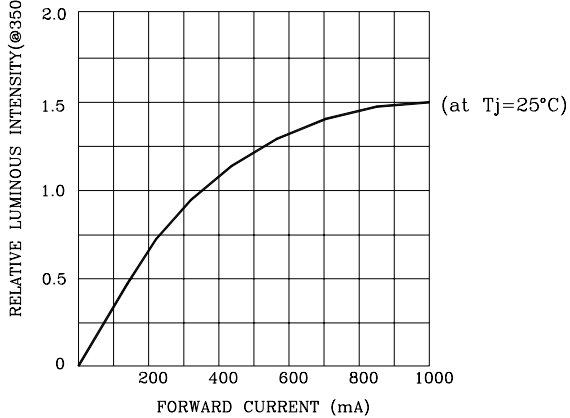
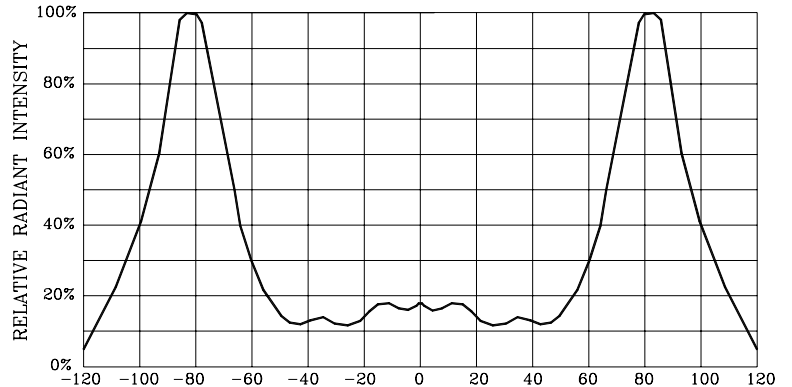
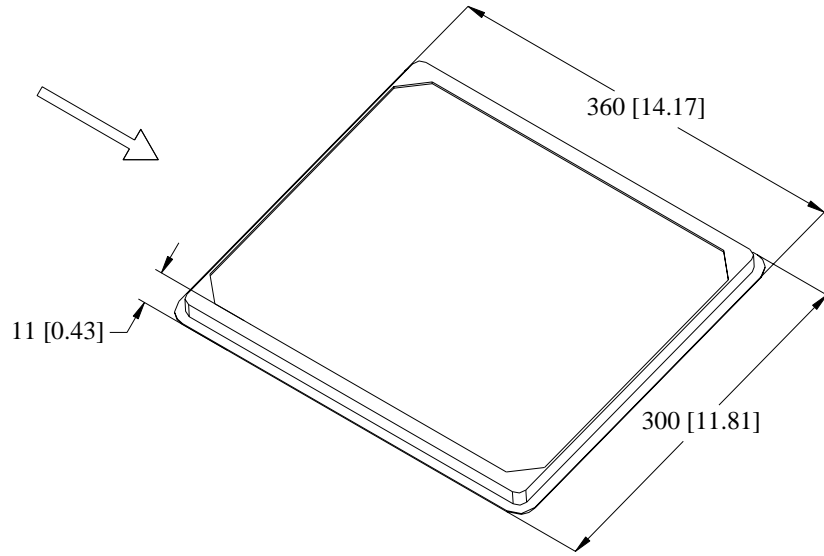
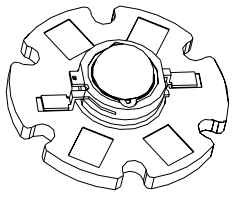


Fig.6 RADIATION DIAGRAM



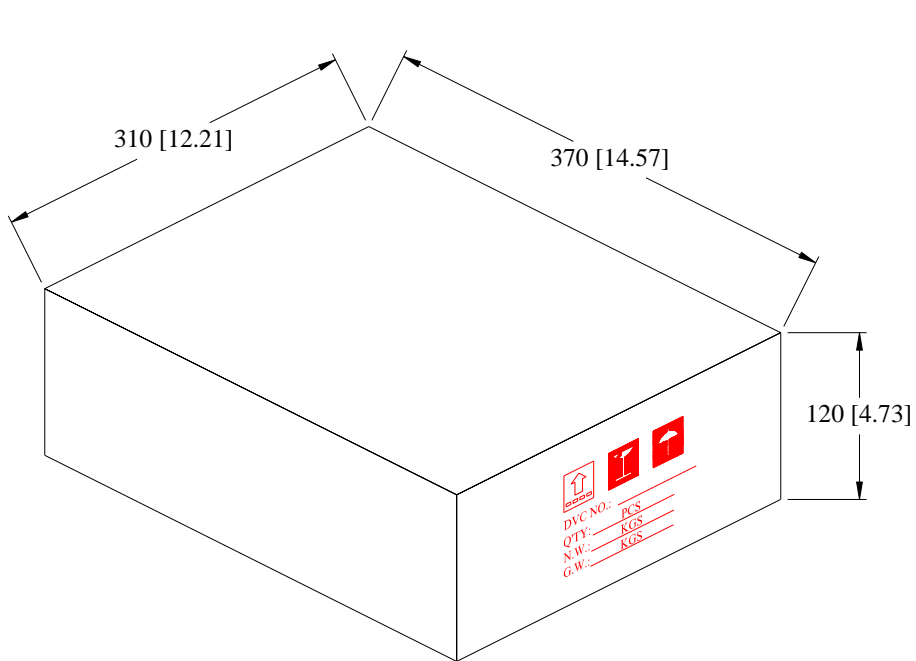


Package Method : (unit:mm)



80 pcs/tray

Tray



10 tray / carton

Carton

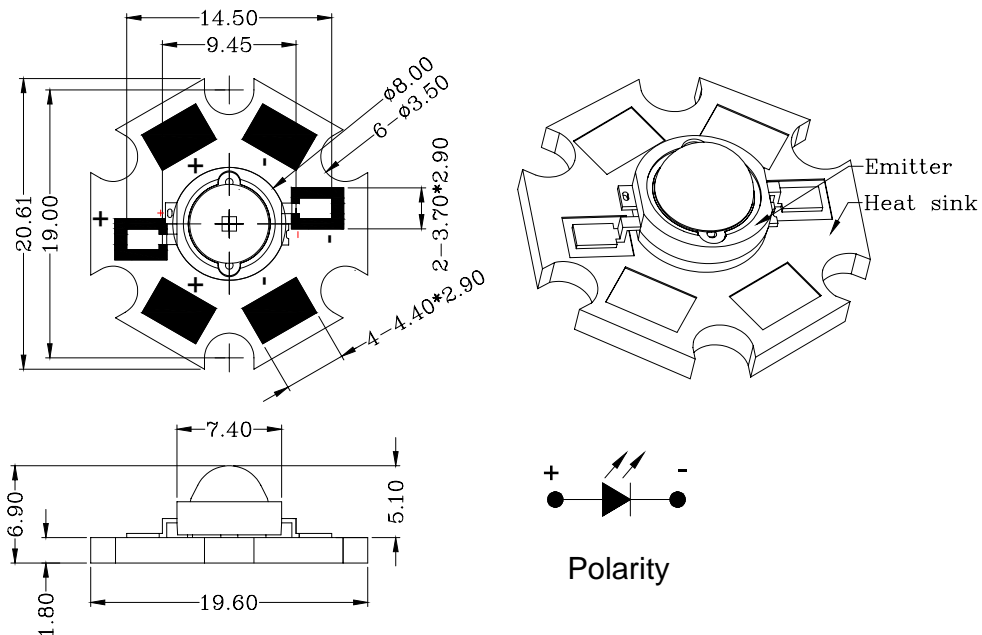
NOTES : Tray : Tolerance is  $\pm 5$  mm unless otherwise noted.  
Carton : Tolerance is  $\pm 10$  mm unless otherwise noted.

**Features:**

1. Input power: 1W.
2. Chip material: AlInGaN, Flip chip.
3. Emitted color: Green.
4. High lumen output.
5. High flux density.
6. Low power consumption.
7. Efficient heat transfer.
8. With heat sink.

**Applications:**

1. Torch.
2. Head Light.
3. Architectural Lighting.
4. LCD Backlight.

**Package dimensions :****Notes:**

1. All dimensions are in millimeters.
2. Tolerance is  $\pm 0.5$ mm unless otherwise specified.

**Absolute maximum ratings( $T_J=25$  )**

Parameter	Symbol	Rating	Unit
Power Dissipation	$P_D$	1.0	W
DC Forward Current* <sup>1</sup>	$I_F$	350	mA
Peak Pulsed Forward Current* <sup>2</sup>	$I_{FP}$	1.0	A
LED Junction Temperature	$T_J$	130	°C
Operating Temperature	$T_{opr}$	-30~120	°C
Storage Temperature	$T_{stg}$	-40~120	°C
Reverse Voltage	$V_R$	5	V
Soldering Temperature (T=5 sec)	$T_{sol}$	$300 \pm 5$	°C

\*<sup>1</sup>Proper current derating must be followed to keep LED junction temperature ( $T_J$ ) below the maximum.

\*<sup>2</sup>Condition for  $I_{FP}$  is pulsed with 1/10 duty and 0.1msec width.

**Electrical & Optical Characteristics ( $T_J=25$  )**

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	$V_F$	$I_F = 350\text{mA}$	-	3.5	4.0	V
Total Flux	$\nu$	$I_F = 350\text{mA}$	25	35	-	lm
Peak Wavelength	$\rho$	$I_F = 350\text{mA}$	-	525	-	nm
Dominant Wavelength	$d$	$I_F = 350\text{mA}$	520	-	530	nm
Spectral Line Half-width		$I_F = 350\text{mA}$	-	35	-	nm
Reverse Current	$I_R$	$V_R = 5\text{V}$	-	-	50	$\mu\text{A}$
Thermal Resistance, Junction To Case	$R_{J-C}$	$I_F = 350\text{mA}$	-	15	-	/W
Viewing Angle	$2\frac{1}{2}$	$I_F = 350\text{mA}$	-	140	-	degree

Typical electro-optical characteristics curves

Fig.1 RELATIVE INTENSITY VS. WAVELENGTH

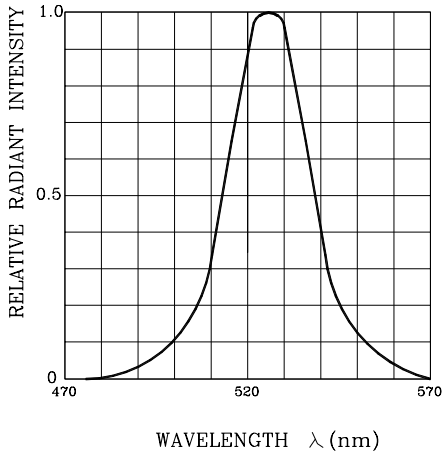


Fig.2 FORWARD CURRENT VS. AMBIENT TEMPERATURE

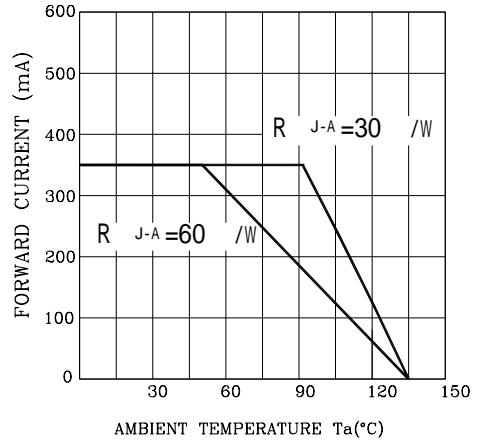


Fig.3 FORWARD CURRENT VS. FORWARD VOLTAGE

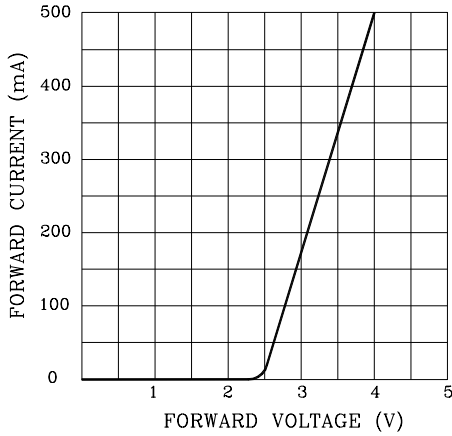


Fig.4 RELATIVE LUMINOUS INTENSITY VS. JUNCTION TEMPERATURE

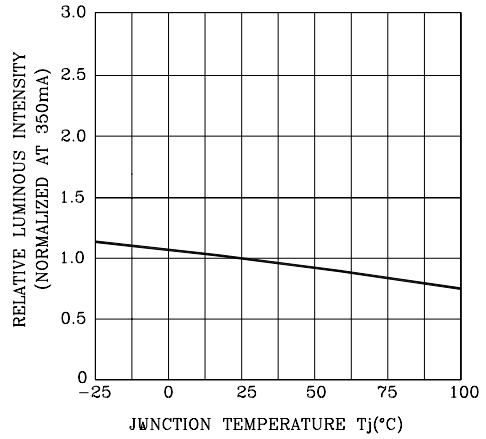


Fig.5 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

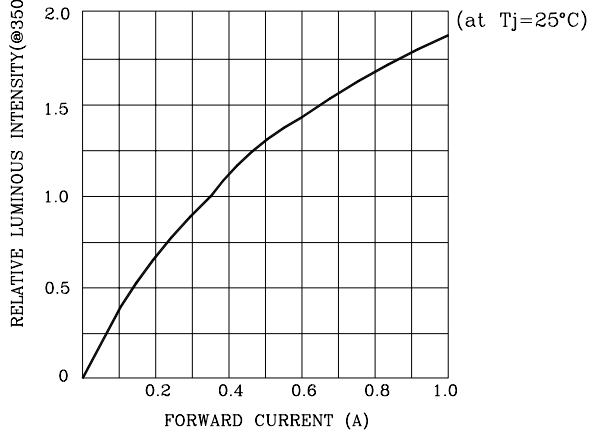
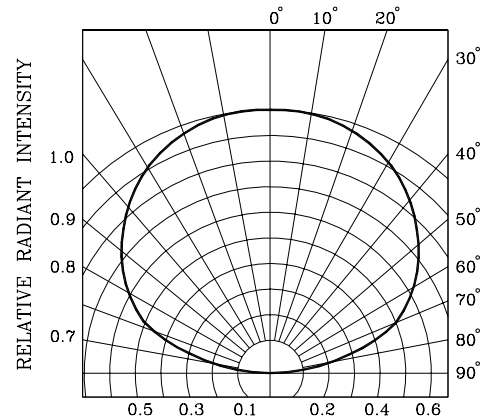
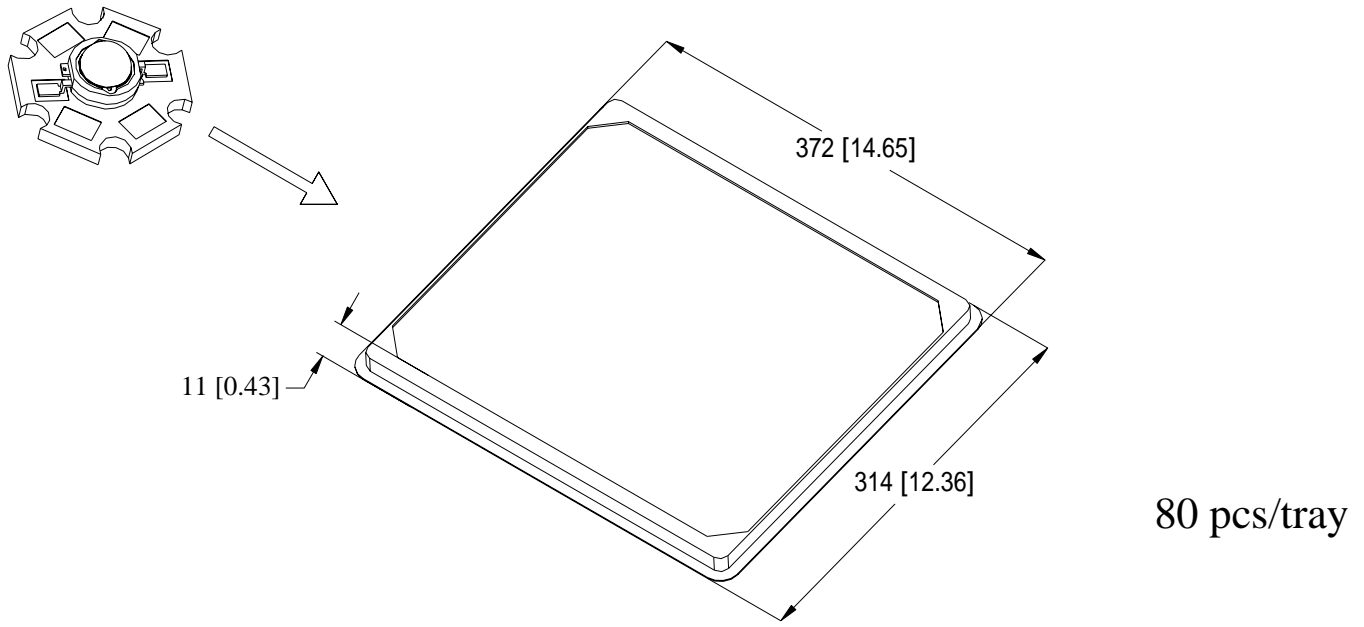


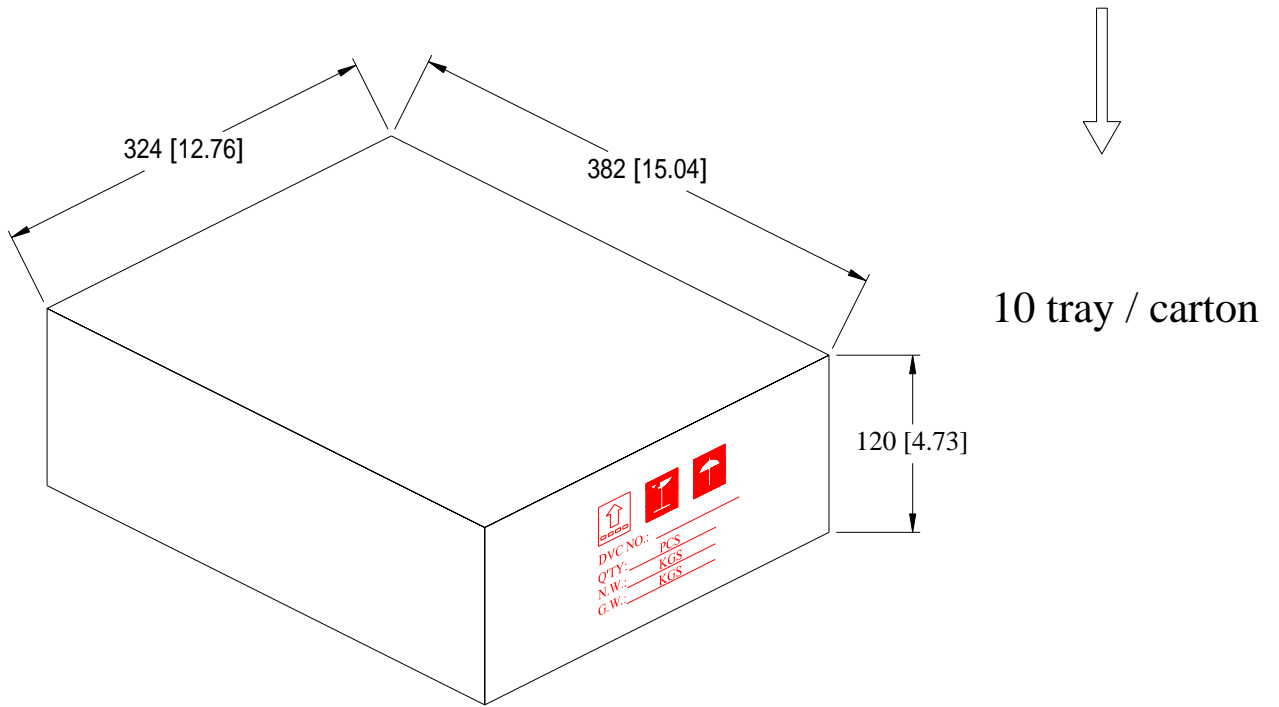
Fig.6 RADIATION DIAGRAM



Package Method : (unit:mm)



Tray



Carton

NOTES : Tray : Tolerance is  $\pm 5$  mm unless otherwise noted.

Carton : Tolerance is  $\pm 10$  mm unless otherwise noted.

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**Total Flux Bin Limits (At 350mA)**

<b>BIN CODE</b>	<b>Min. (lm)</b>	<b>Max. (lm)</b>
K	25	33
L	33	42
M	42	55

Tolerance for each Bin limit is  $\pm 15\%$

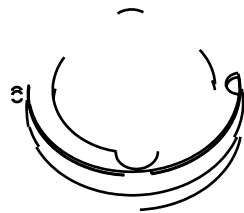
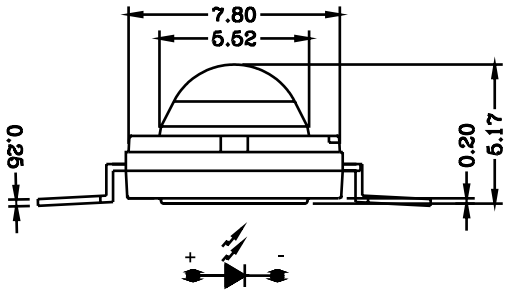
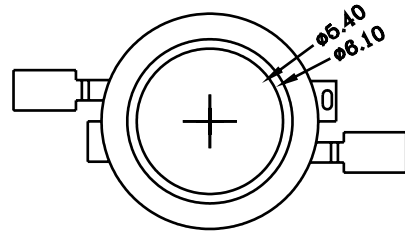
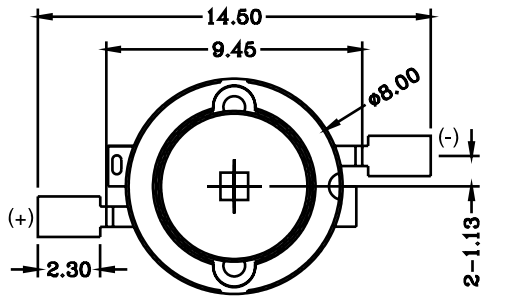
**Color Bin Limits(At 350mA)**

<b>BIN CODE</b>	<b>Min. (nm)</b>	<b>Max. (nm)</b>
6	520	525
7	525	530

Tolerance for each Bin limit is  $\pm 1\text{ nm}$


**Notes:**

1. Bin categories are established for classification of products.  
Products may not be available in all bin categories.



Notes: dimensions are in millimeters.

2. Tolerance is  $\pm 0.5\text{mm}$  unless otherwise specified.

**Absolute maximum ratings (T<sub>J</sub>=25 )**

Parameter	Symbol	Rating	Unit
Power Dissipation	P <sub>D</sub>	1.4	W
DC Forward Current* <sup>1</sup>	I <sub>F</sub>	700	mA
Peak Pulsed Forward Current* <sup>2</sup>	I <sub>FP</sub>	1.5	A
LED Junction Temperature	T <sub>J</sub>	125	°C
Operating Temperature	T <sub>opr</sub>	-30~110	°C
Storage Temperature	T <sub>stg</sub>	-40~120	°C
Reverse Voltage	V <sub>R</sub>	5	V
Soldering Temperature (T=5 sec)	T <sub>sol</sub>	300 ± 5	°C

\*<sup>1</sup>Proper current derating must be followed to keep LED junction temperature (T<sub>J</sub>) below the maximum.

\*<sup>2</sup>Condition for I<sub>FP</sub> is pulsed with 1/10 duty and 0.1msec width.

**Electrical & Optical Characteristics (T<sub>J</sub>=25 )**

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> = 700mA	1.5	1.9	2.4	V
Radiant Power	P <sub>o</sub>	I <sub>F</sub> = 700mA	-	240	-	mW
Peak Wavelength	ρ	I <sub>F</sub> = 700mA	-	850	-	nm
Spectral Line Half-width		I <sub>F</sub> = 700mA	-	50	-	nm
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =5V	-	-	50	μA
Rise/Fall Time PW=10uS DC=1%	T <sub>r</sub>	I <sub>FP</sub> =700mA	-	500	-	ns
Rise/Fall Time PW=10uS DC=1%	T <sub>f</sub>	I <sub>FP</sub> =700mA	-	200	-	ns
Thermal Resistance, Junction To Case	R <sub>J-C</sub>	I <sub>F</sub> = 700mA	-	15	-	/W
Viewing Angle	2 1/2	I <sub>F</sub> = 700mA	-	120	-	degree



Typical electro-optical characteristics curves

Fig.1 RELATIVE INTENSITY VS. WAVELENGTH

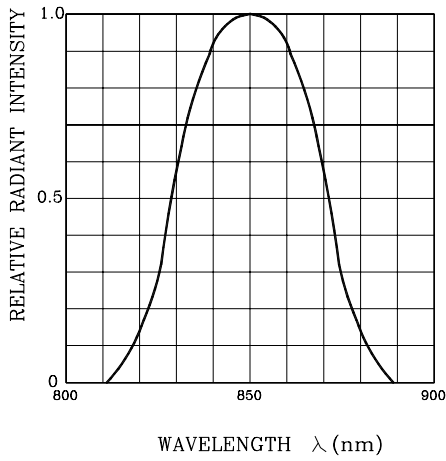


Fig.2 FORWARD CURRENT VS. AMBIENT TEMPERATURE

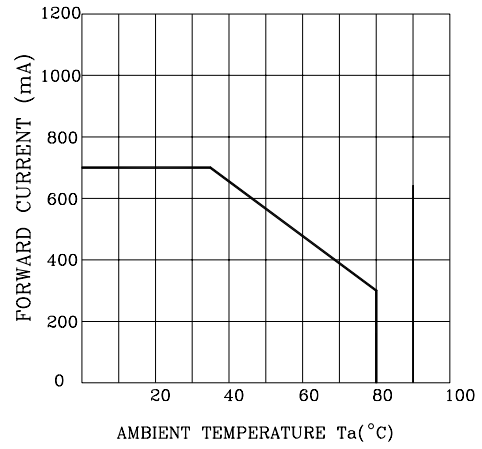


Fig.3 FORWARD CURRENT VS. FORWARD VOLTAGE

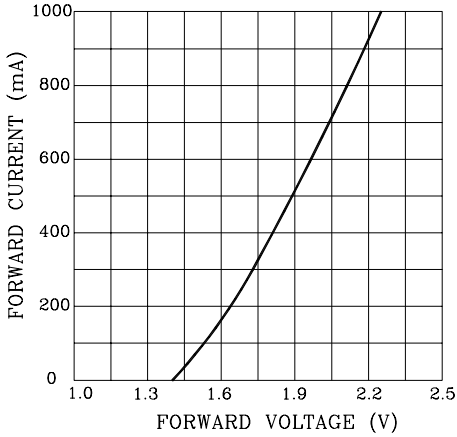


Fig.4 RELATIVE LUMINOUS INTENSITY VS. AMBIENT TEMPERATURE

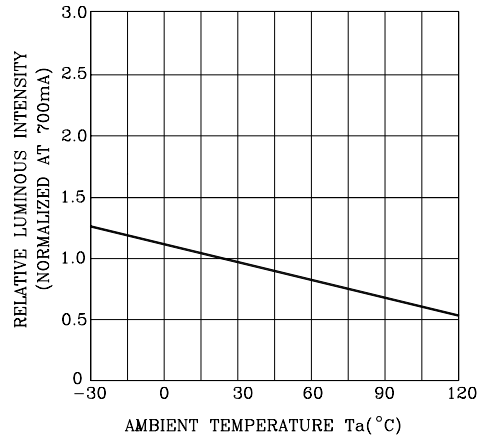


Fig.5 RELATIVE RADIANT POWER VS. FORWARD CURRENT

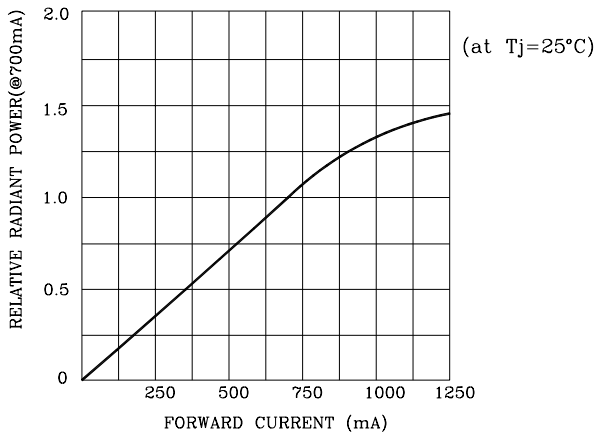
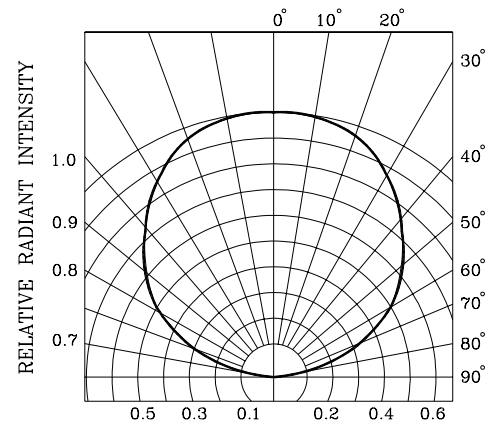
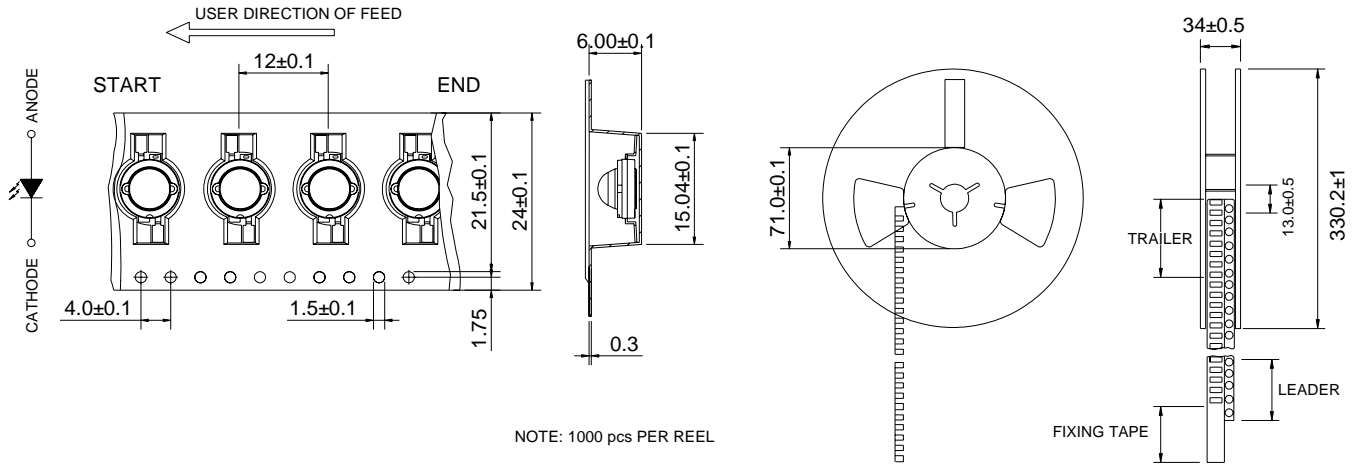


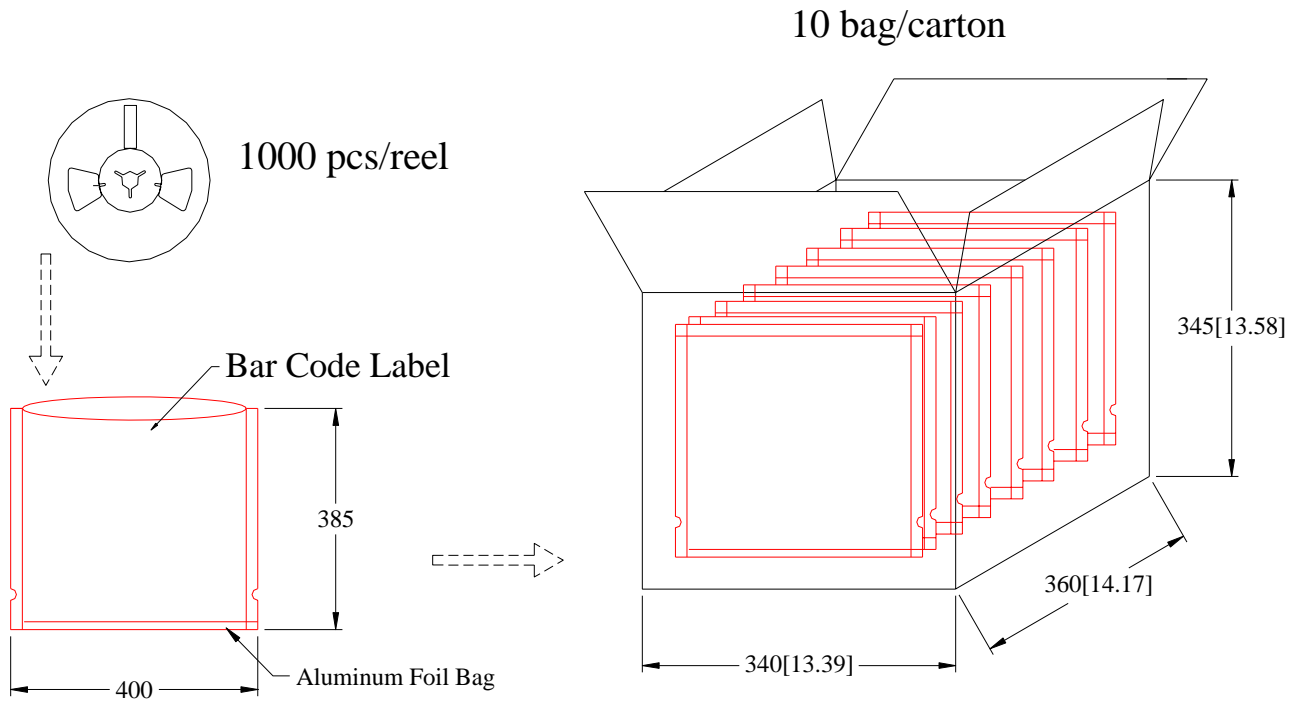
Fig.6 RADIATION DIAGRAM



**Tapping and packaging specifications(Units: mm)**



**Package Method : (unit:mm)**



NOTES : Bag : Tolerance is ± 5 mm unless otherwise noted.  
 Carton : Tolerance is ± 10 mm unless otherwise noted.