

3W HI-POWER LED (NovaBrite-60°)

EMITTER:

DEVICE NUMBER	VHP-3A3R01-F1-LS2	VHP-3A3G01-F1-LS2	VHP-3A3B01-F1-LS2	VHP-3A3K01-F1-LS2	VHP-3A3A01-F1-LS2	VHP-3A3W01-F1-LS2
Color	Red	Green	Blue	Yellow	White**	Warm White**
Total Flux(Typ.)	75lm	105lm	30lm	75lm	105lm	75lm
λ d/CCT	620~630nm	520~530nm	460~470nm	586nm~596nm	5000~8000K	2800~3800K
Forward Voltage (Typ.)	2.2V	3.5V	3.5V	2.2V	3.5V	3.5v
Angle of off axis peak intensity $2\theta_{1/2}$	60°					

MODULE:

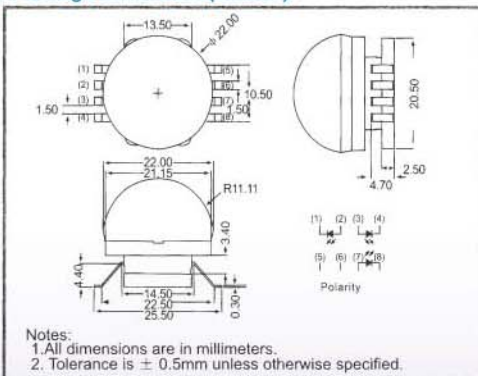
DEVICE NUMBER	VHP-3A3R01S-LS2	VHP-3A3G01S-LS2	VHP-3A3B01S-LS2	VHP-3A3K01S-LS2	VHP-3A3A01S-LS2	VHP-3A3W01S-LS2
Color	Red	Green	Blue	Yellow	White**	Warm White**
Total Flux(Typ.)	75lm	105lm	30lm	75lm	105lm	75lm
λ d/CCT	620~630nm	520~530nm	460~470nm	586nm~596nm	5000~8000K	2800~3800K
Forward Voltage (Typ.)	12V					
Angle of off axis peak intensity $2\theta_{1/2}$	60°					

※ All measured at $T_c=25^\circ\text{C}$, $I_f=350\text{mA}$.
 **Packaged with Non-YAG phosphor.

Features:

- High Luminous Flux Performance
- Easy Assembly to Heat sink
- Low Thermal Resistance Package* ($R\theta_j-c=6^\circ\text{C/W}$)
- *The values are based on 3-dice performance.

Package dimensions(Emitter):

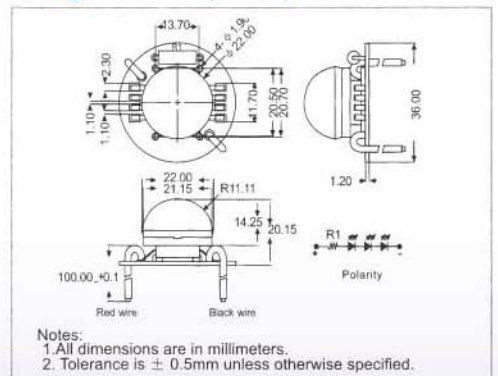


Applications:

- Desk Light
- Architectural Lighting
- LCD Backlight
- Special Area Lighting



Package dimensions(Module):

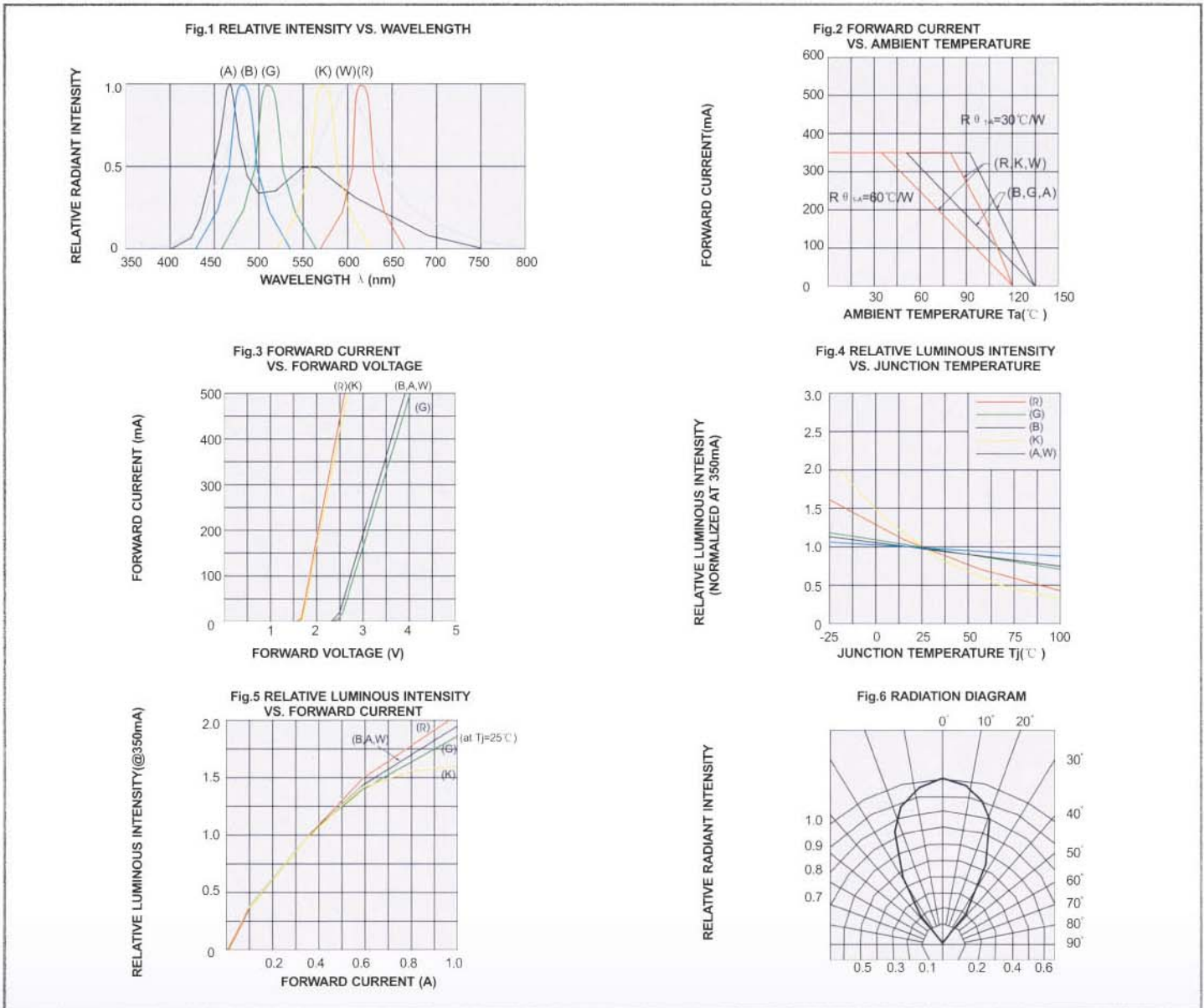


Parameter	Symbol	Rating	Unit
Power Dissipation	P_D	3.0	W
DC Forward Current ^{*1}	I_F	350	mA
Peak Pulsed Forward Current ^{*2}	I_{FP}	1.0	A
LED Junction Temperature	T_J	130	$^{\circ}\text{C}$
Operating Temperature	T_{opr}	-30~120	$^{\circ}\text{C}$
Storage Temperature	T_{stg}	-40~120	$^{\circ}\text{C}$
Reverse Voltage	VR	5	V
Soldering Temperature (T=5 sec)	T_{sol}	300 ± 5	$^{\circ}\text{C}$

*1Proper current derating must be followed to keep LED junction temperature (T_J) below the maximum.

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

Typical electro-optical characteristics curves:



1W HI-POWER LED (MagnaBrite-Lambertian Type)

DEVICE NUMBER	VHP-2B1R01	VHP-2B1G01	VHP-2B1B01	VHP-2B1K01	VHP-2B1A01	VHP-2B1W01

Color	Red	Green	Blue	Yellow	White**	Warm White**
Total Flux(Typ.)	25lm	35lm	7lm	25lm	35lm	25lm
λ d/CCT	620~630nm	520~530nm	460~470nm	586nm~596nm	5000~8000K	2800~3800K
Forward Voltage (Typ.)	2.2V	3.5V	3.5V	2.2V	3.5V	3.5V
Angle of off axis peak intensity $2\theta_{1/2}$	120°					

※ All measured at $T_j=25^\circ\text{C}$, $I_f=350\text{mA}$.
 **Packaged with Non-YAG phosphor.

Features:

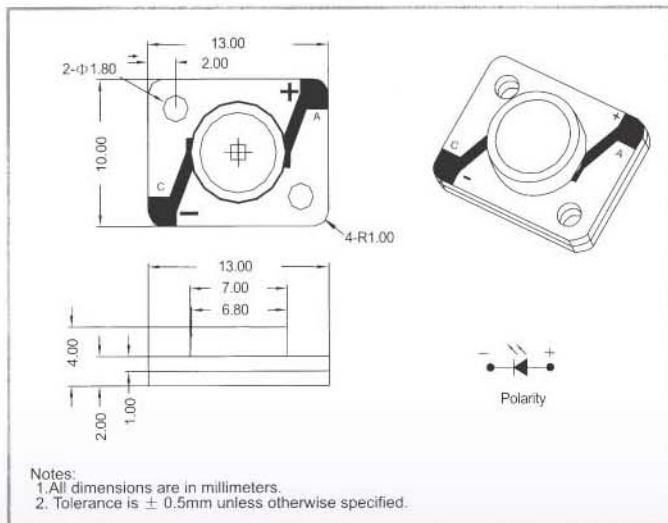
- High Luminous Flux Performance
- Easy Adaptable to Heat sink
- Low Thermal Resistance Package ($R_{\theta j-c}=15\text{-}18^\circ\text{C/W}$)

Applications:

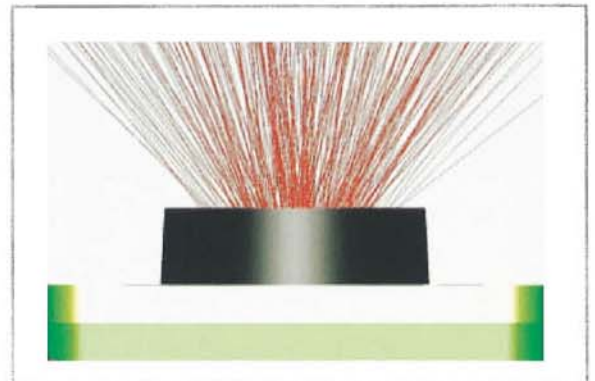
- Torch, Head Light
- Architectural Lighting
- LCD Backlight



Package dimensions:



Simulation Result:

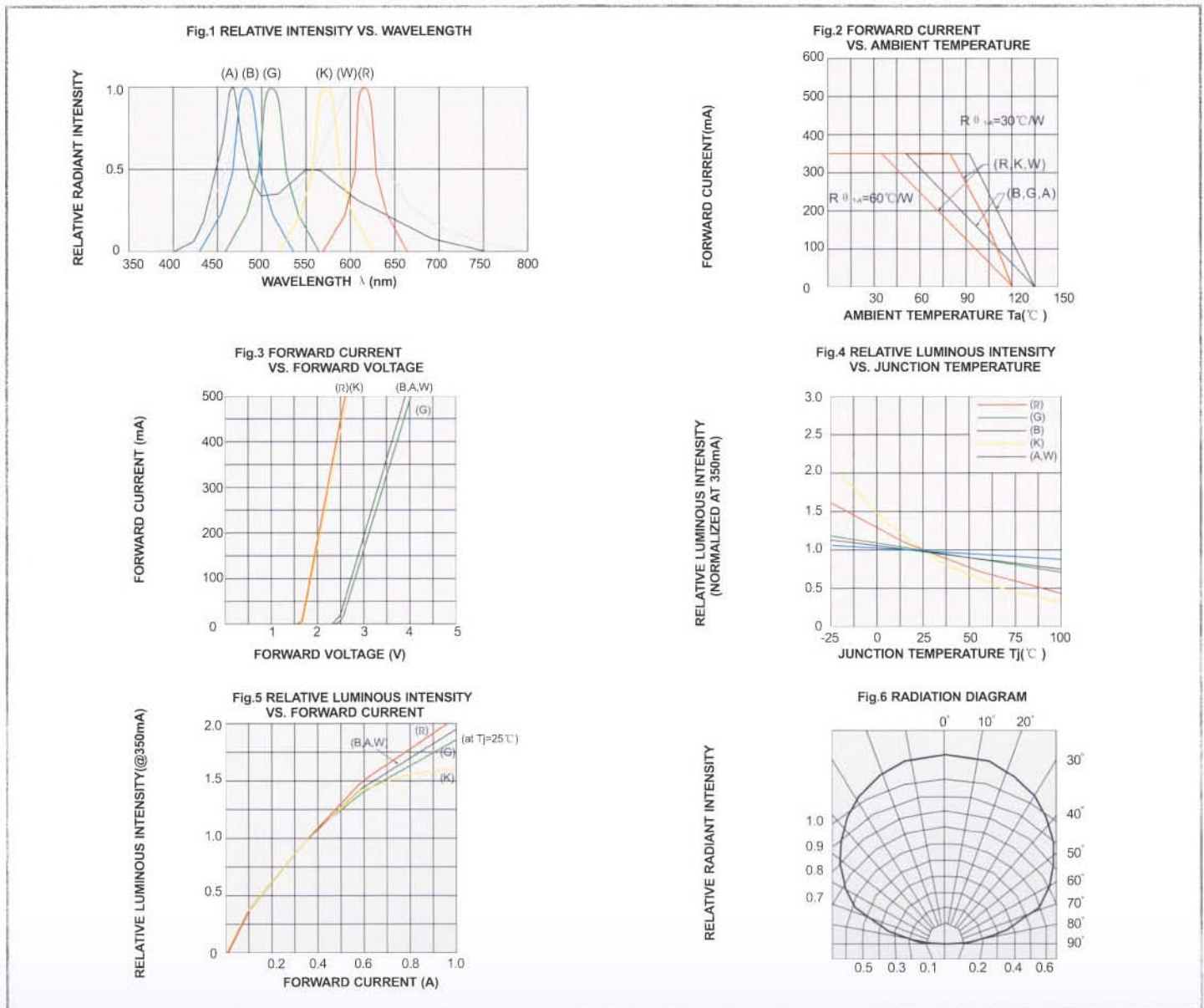


Parameter	Symbol	Rating	Unit
Power Dissipation	P_o	1.0	W
DC Forward Current ^{*1}	I_F	350	mA
Peak Pulsed Forward Current ^{*2}	I_{FP}	1.0	A
LED Junction Temperature	T_J	130	$^{\circ}\text{C}$
Operating Temperature	T_{opr}	-30~120	$^{\circ}\text{C}$
Storage Temperature	T_{stg}	-40~120	$^{\circ}\text{C}$
Reverse Voltage	VR	5	V
Soldering Temperature (T=5 sec)	T_{sol}	300 ± 5	$^{\circ}\text{C}$

*1)Proper current derating must be followed to keep LED junction temperature (T_J) below the maximum.

*2)Condition for I_{FP} is pulsed with 1/10 duty and 0.1msec width.

Typical electro-optical characteristics curves:



1W HI-POWER LED (Brimon-Lambertian Type)



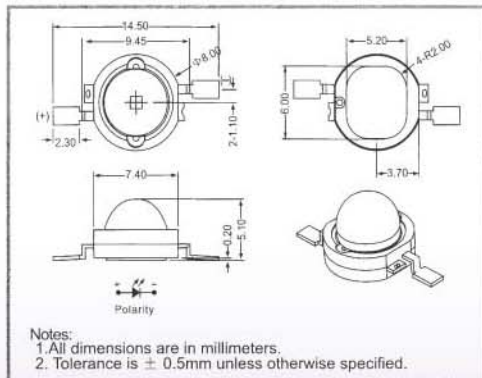
Color	Red	Green	Blue	Yellow	White**	Warm White**
Total Flux(Typ.)	25lm	35lm	7lm	25lm	35lm	25lm
λ d/CCT	620~630nm	520~530nm	460~470nm	586nm~ 596nm	5000~8000K	2800~3800K
Forward Voltage (Typ.)	2.2V	3.5V	3.5V	2.2V	3.5V	3.5V
Angle of off axis peak intensity $2\theta_{1/2}$	140°					

※All measured at $T_j=25^\circ\text{C}$, $I_f=350\text{mA}$.
 **Packaged with Non-YAG phosphor.

Features:

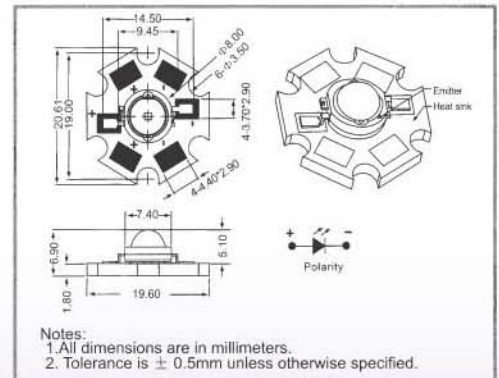
High Luminous Flux Performance
 Adaptable to General Soldering Pads
 Low Thermal Resistance Package ($R_{\theta j-c}=15\text{-}18^\circ\text{C/W}$)

Package dimensions:



Applications:

Torch, Head Light
 Architectural Lighting
 LCD Backlight



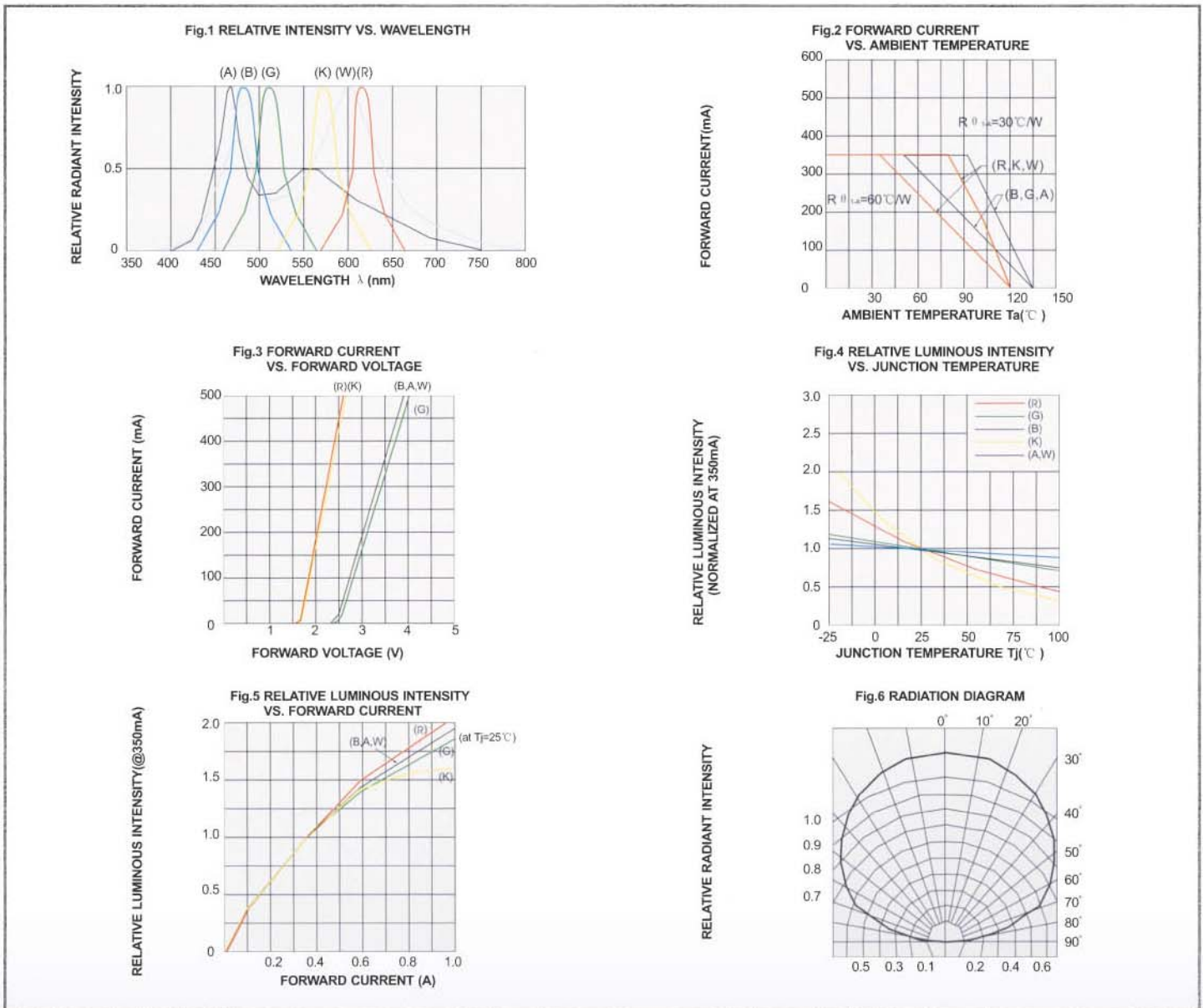
Absolute maximum ratings($T_J=25^{\circ}\text{C}$):

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

*1Proper current derating must be followed to keep LED junction temperature (T_J) below the maximum.

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

Typical electro-optical characteristics curves:





1W HI-POWER LED (Brimon-Side Emitting Type)

EMITTER:



Color	Red	Green	Blue	Yellow	White**	Warm White**
Total Flux(Typ.)	25lm	35lm	7lm	25lm	35lm	25lm
λ d/CCT	620~630nm	520~530nm	460~470nm	586nm~596nm	5000~8000K	2800~3800K
Forward Voltage (Typ.)	2.2V	3.5V	3.5V	2.2V	3.5V	3.5V
Angle of off axis peak intensity θ peak	75°~85°					

※All measured at $T_j=25^\circ\text{C}$, $I_f=350\text{mA}$.
 **Packaged with Non-YAG phosphor.

Features:

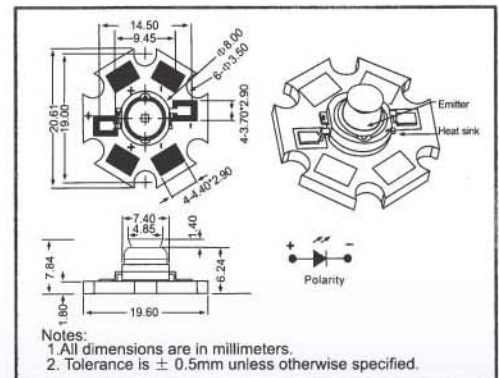
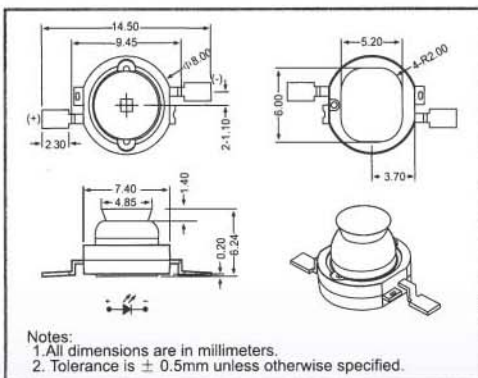
High Luminous Flux Performance
 Adaptable to General Soldering Pads
 Low Thermal Resistance Package ($R_{\theta j-c}=15\text{-}18^\circ\text{C/W}$)

Applications:

Torch, Head Light
 Architectural Lighting
 LCD Backlight



Package dimensions:



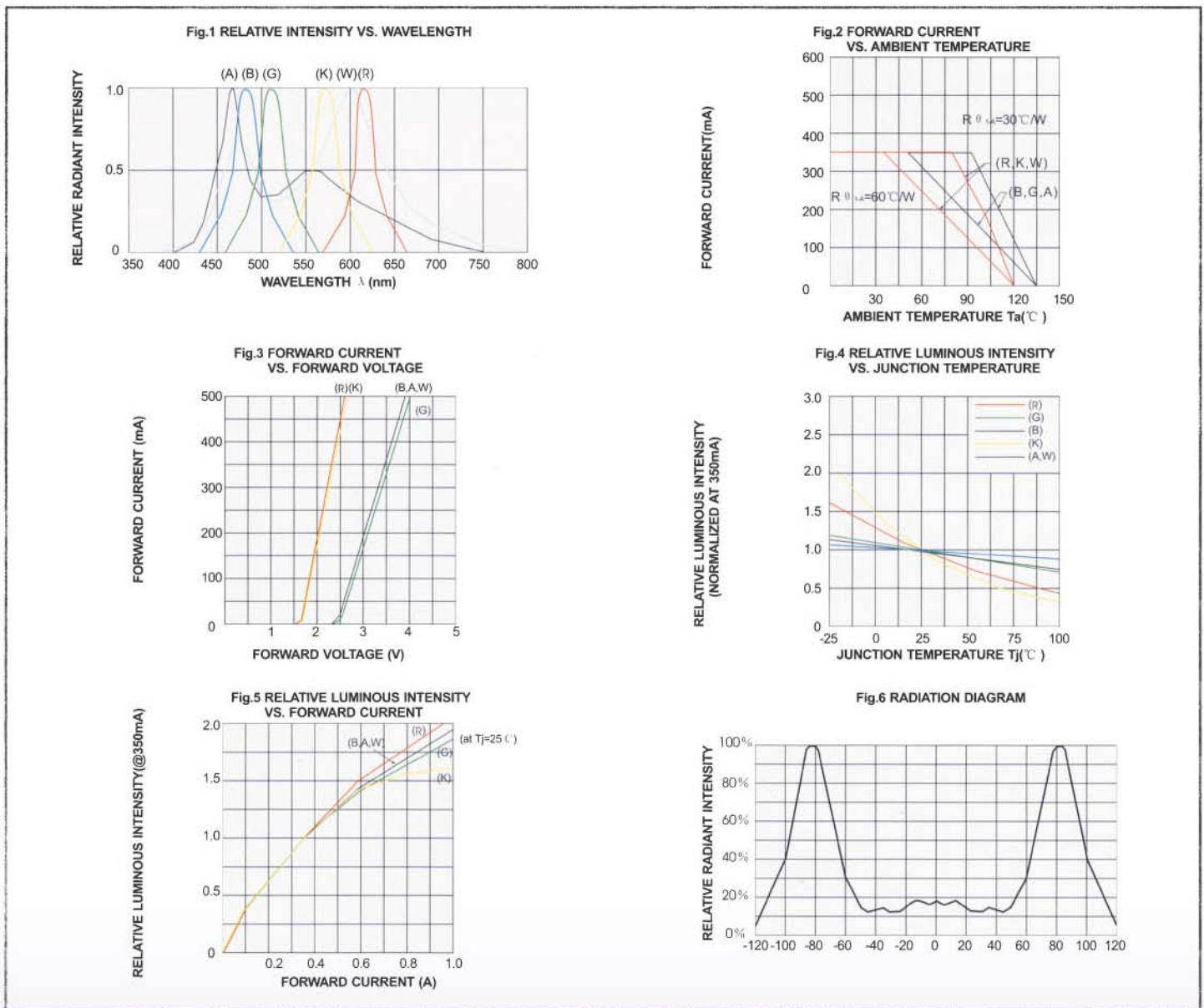
Absolute maximum ratings($T_J=25^{\circ}\text{C}$):

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

*1Proper current derating must be followed to keep LED junction temperature (T_J) below the maximum.

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

Typical electro-optical characteristics curves:



3W HI-POWER LED (NovaBrite-120°)

EMITTER:

DEVICE NUMBER	VHP-3A3R01-F1	VHP-3A3G01-F1	VHP-3A3B01-F1	VHP-3A3K01-F1	VHP-3A3A01-F1	VHP-3A3W01-F1
Color	Red	Green	Blue	Yellow	White**	Warm White**
Total Flux(Typ.)	75lm	105lm	30lm	75lm	105lm	75lm
λ d/CCT	620~630nm	520~530nm	460~470nm	586nm~596nm	5000~8000K	2800~3800K
Forward Voltage (Typ.)	2.2V	3.5V	3.5V	2.2V	3.5V	3.5V
Angle of off axis peak intensity $2\theta_{1/2}$	120°					

MODULE:

DEVICE NUMBER	VHP-3A3R01S	VHP-3A3G01S	VHP-3A3B01S	VHP-3A3K01S	VHP-3A3A01S	VHP-3A3W01S
Color	Red	Green	Blue	Yellow	White**	Warm White**
Total Flux(Typ.)	75lm	105lm	30lm	75lm	105lm	75lm
λ d/CCT	620~630nm	520~530nm	460~470nm	586nm~596nm	5000~8000K	2800~3800K
Forward Voltage (Typ.)	12V					
Angle of off axis peak intensity $2\theta_{1/2}$	120°					

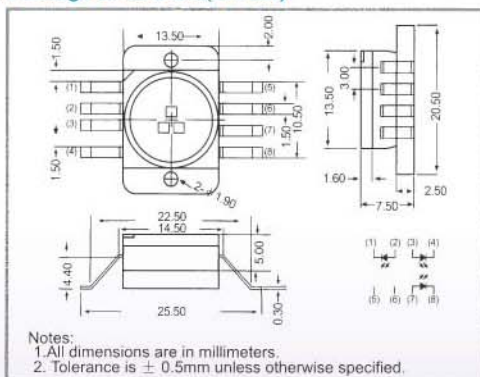
※All measured at $T_j=25^\circ\text{C}$ $I_f=350\text{mA}$
 **Packaged with Non-YAG phosphor.

Features:

- High Luminous Flux Performance
- Easy Assembly to Heat sink
- Low Thermal Resistance Package* ($R_{\theta j-c}=6^\circ\text{C/W}$)

*The values are based on 3-dice performance.

Package dimensions(Emitter):

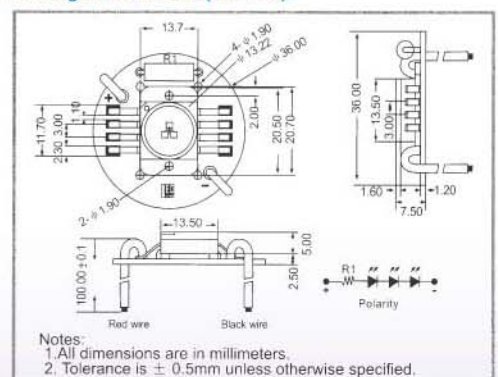


Applications:

- Desk Light
- Architectural Lighting
- LCD Backlight
- Special Area Lighting



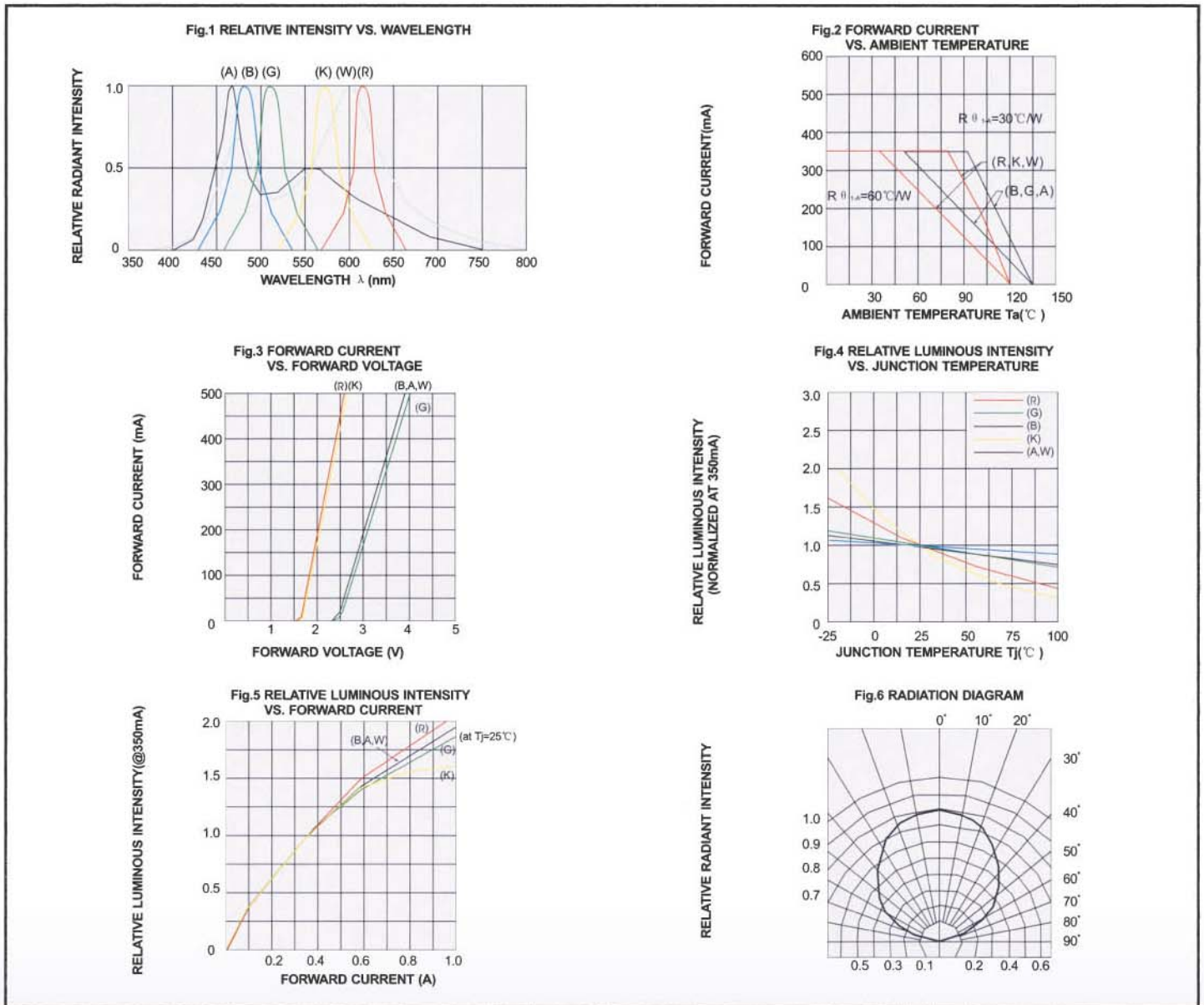
Package dimensions(Module):



Parameter	Symbol	Rating	Unit
Power Dissipation	P_D	3.0	W
DC Forward Current ^{*1}	I_F	350	mA
Peak Pulsed Forward Current ^{*2}	I_{FP}	1.0	A
LED Junction Temperature	T_J	130	$^{\circ}\text{C}$
Operating Temperature	T_{opr}	-30~120	$^{\circ}\text{C}$
Storage Temperature	T_{stg}	-40~120	$^{\circ}\text{C}$
Reverse Voltage	VR	5	V
Soldering Temperature (T=5 sec)	T_{sol}	300 ± 5	$^{\circ}\text{C}$

*Proper current derating must be followed to keep LED junction temperature (T_J) below the maximum.
^{*2}Condition for I_{FP} is pulsed with 1/10 duty and 0.1msec width.

Typical electro-optical characteristics curves:





1W HI-POWER LED (MagnaBrite-Side Emitting Type)

DEVICE NUMBER	VHP-2C1R01	VHP-2C1G01	VHP-2C1B01	VHP-2C1K01	VHP-2C1A01	VHP-2C1W01

Color	Red	Green	Blue	Yellow	White**	Warm White**
Total Flux(Typ.)	25lm	35lm	7lm	25lm	35lm	25lm
λ d/CCT	620~630nm	520~530nm	460~470nm	586nm~596nm	5000~8000K	2800~3800K
Forward Voltage (Typ.)	2.2V	3.5V	3.5V	2.2V	3.5V	3.5V
Angle of off axis peak intensity θ peak	75°~85°					

※ All measured at $T_c=25^\circ\text{C}$, $I_f=350\text{mA}$.
 **Packaged with Non-YAG phosphor.

Features:

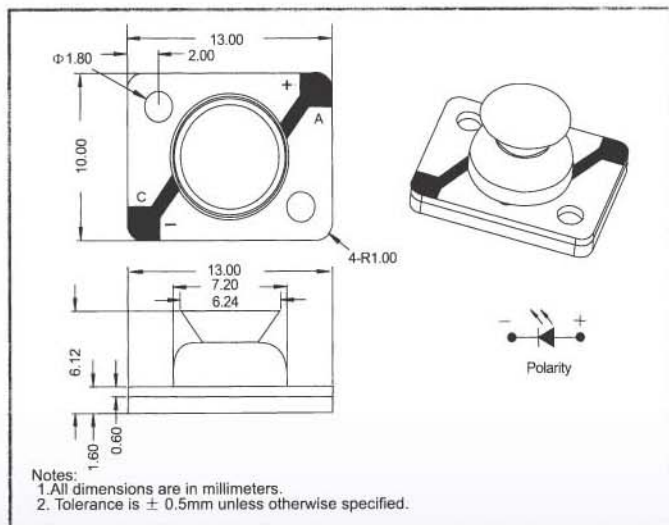
- High Luminous Flux Performance
- Easy Adaptable to Heat sink
- Low Thermal Resistance Package ($R_{\theta j-c}=15\text{-}18^\circ\text{C/W}$)

Applications:

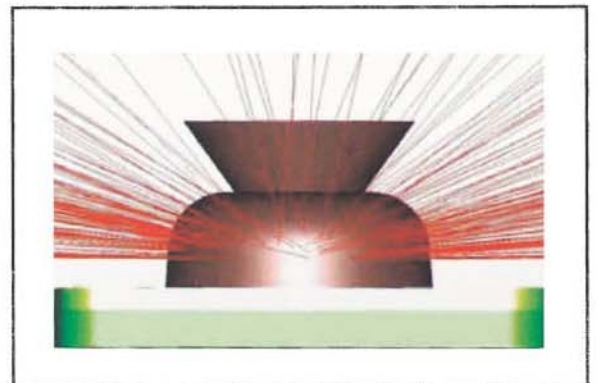
- Torch, Head Light
- Architectural Lighting
- LCD Backlight



Package dimensions:



Simulation Result:



Absolute maximum ratings($T_j=25^{\circ}\text{C}$):

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

*1Proper current derating must be followed to keep LED junction temperature (T_j) below the maximum.

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

Typical electro-optical characteristics curves:

