

Deluxe Power 5mm Round Ultra Bright Red LED

OS5REA5111P

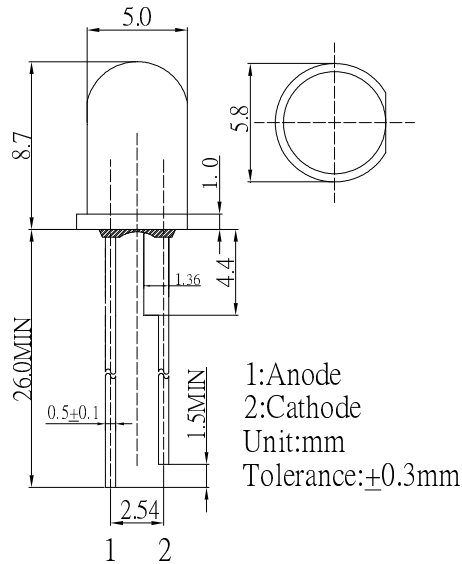
■ Features

- High Luminous LEDs
- 5mm Round Standard Directivity
- Superior Weather-resistance
- UV Resistant Epoxy
- Water Clear Type

■ Applications

- Traffic signal, Portable light source
- Signage and channel letter
- Decorating and entertainment lighting
- Architectural lighting
- Outdoor/Indoor applications/Other Lighting

■ Outline Dimension



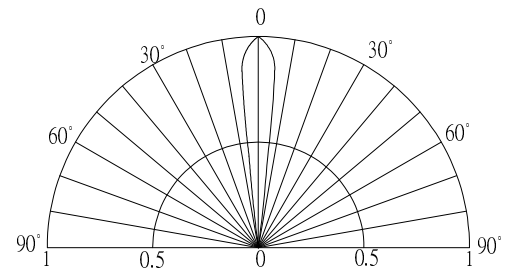
■ Absolute Maximum Rating

(Ta=25°C)

Item	Symbol	Value	Unit
DC Forward Current	I _F	50	mA
Pulse Forward Current*	I _{FP}	120	mA
Reverse Voltage	V _R	5	V
Power Dissipation	P _D	130	mW
Operating Temperature	T _{opr}	-30 ~ +85	°C
Storage Temperature	T _{stg}	-40 ~ +100	°C
Lead Soldering Temperature	T _{sol}	260°C / 5sec	-

*Pulse width Max.10ms Duty ratio max 1/10

■ Directivity



■ Electrical -Optical Characteristics

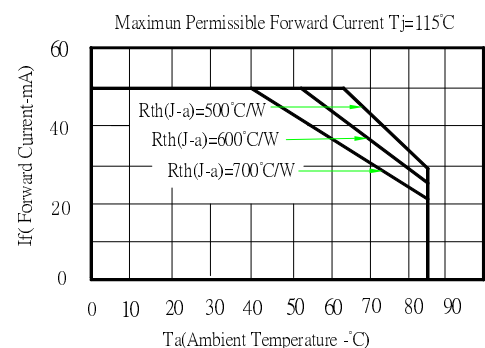
(Ta=25°C)

Item	Symbol	Condition	Min.	Typ.	Max.	Unit
DC Forward Voltage	V _F	I _F =50mA	2.0	2.3	2.6	V
DC Reverse Current	I _R	V _R =5V	-	-	10	μA
Domi. Wavelength*	λ _D	I _F =50mA	620	625	630	nm
Luminous Intensity*	I _v	I _F =50mA	60000	75000	-	mcd
50% Power Angle	2θ _{1/2}	I _F =50mA	-	15	-	deg

*1 Tolerance of dominant wavelength is ±1nm

*2 Tolerance of luminous intensity is ±15%

■ Maximum Forward DC Current



5mm Round Ultra Bright Red LED

OS5RKP5111A

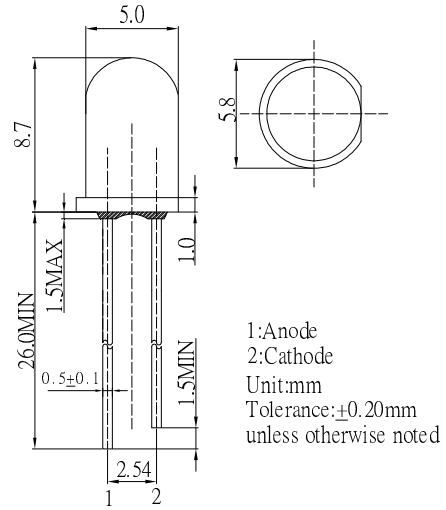
■ Features

- High Luminous LEDs
- 5mm Round Standard Directivity
- Superior Weather-resistance
- UV Resistant Epoxy
- Water Clear Type
- Perfect Beam Pattern

■ Applications

- Advertising Board
- Horticulture Application
- Traffic Light / Signal Light
- Beauty Product
- Other Lighting

■ Outline Dimension



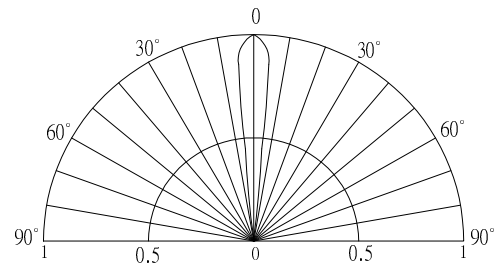
■ Absolute Maximum Rating (Ta=25°C)

(Ta=25°C)

Item	Symbol	Value	Unit
DC Forward Current	I _F	30	mA
Pulse Forward Current*	I _{FP}	100	mA
Reverse Voltage	V _R	5	V
Power Dissipation	P _D	78	mW
Operating Temperature	T _{opr}	-30 ~ +85	°C
Storage Temperature	T _{stg}	-40 ~ +100	°C
Lead Soldering Temperature	T _{sol}	260°C/5sec	-

*Pulse width Max.10ms Duty ratio max 1/10

■ Directivity



■ Electrical -Optical Characteristics (Ta=25°C)

(Ta=25°C)

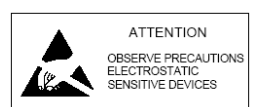
Item	Symbol	Condition	Min.	Typ.	Max.	Unit
DC Forward Voltage	V _F	I _F =30mA	1.8	2.1	2.6	V
DC Reverse Current	I _R	V _R =5V	-	-	10	μA
Luminous Flux	Φ _v	I _F =30mA	3.5	4.5	-	lm
Luminous Intensity*	I _v	I _F =30mA	22	25	-	cd
Domi. Wavelength*	λ _D	I _F =30mA	620	625	630	nm
50% Power Angle	2θ _{1/2}	I _F =30mA	-	15	-	deg

*1 Tolerance of measurements of dominant wavelength is ±1nm

*2 Tolerance of measurements of luminous intensity is ±15%

*3 Tolerance of measurements of forward voltage is ±0.1V

LED & Application Technologies



5mm Round Red LED

OS5RKA5111A

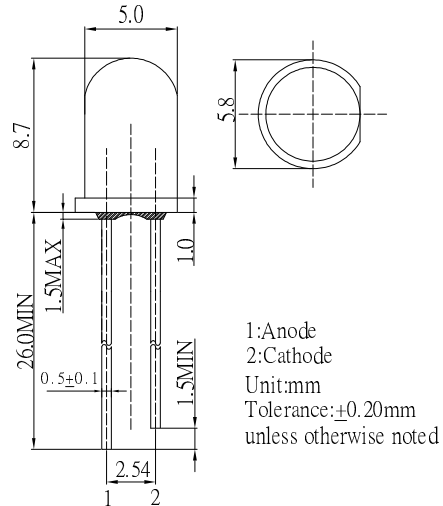
■Features

- High Luminous LEDs
- 5mm Round Standard Directivity
- Superior Weather-resistance
- UV Resistant Epoxy
- Water Clear Type

■Applications

- Traffic Signal
- Backlighting
- Signal and channel letter
- Other Lighting

■Outline Dimension

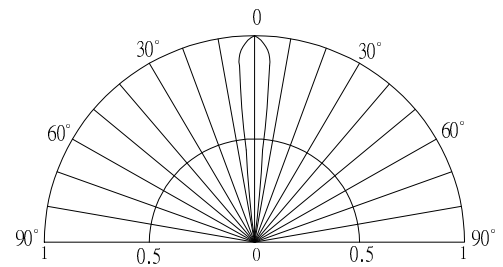


■Absolute Maximum Rating (Ta=25°C)

Item	Symbol	Value	Unit
DC Forward Current	I _F	50	mA
Pulse Forward Current*	I _{FP}	120	mA
Reverse Voltage	V _R	5	V
Power Dissipation	P _D	130	mW
Operating Temperature	T _{opr}	-40~ +85	°C
Storage Temperature	T _{stg}	-40 ~ +100	°C
Lead Soldering Temperature	T _{sol}	260°C/5sec	-

*Pulse width Max.10ms , Duty ratio max 1/10

■Directivity



■Electrical -Optical Characteristics (Ta=25°C)

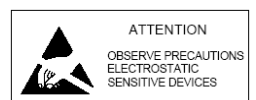
Item	Symbol	Condition	Min.	Typ.	Max.	Unit
DC Forward Voltage	V _F	I _F =20mA	2.0	2.2	2.6	V
DC Reverse Current	I _R	V _R =5V	-	-	10	μA
Domi. Wavelength*	λ _D	I _F =20mA	620	625	630	nm
Luminous Intensity*	I _v	I _F =20mA	50000	60000	-	mcd
50% Power Angle	2θ _{1/2}	I _F =20mA	-	15	-	deg

*1 Tolerance of measurements of dominant wavelength is ±1nm

*2 Tolerance of measurements of luminous intensity is ±15%

*3 Tolerance of measurements of forward voltage is±0.1V

LED & Application Technologies



5mm Round Pure White LED

OS4WFL5A31A

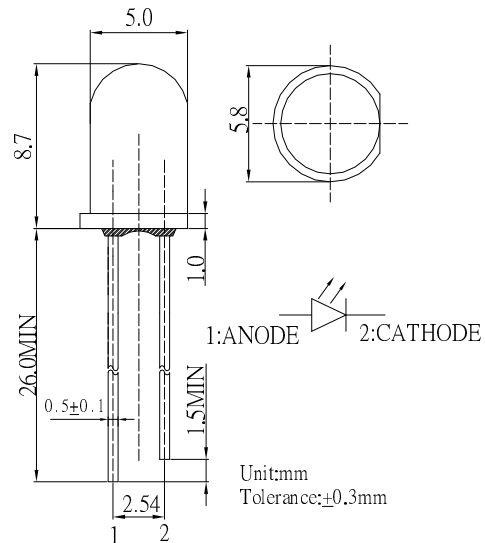
■ Features

- High luminous Flux LEDs
- 5mm Round Standard Directivity
- Superior Weather-resistance
- UV Resistant Epoxy
- Water Clear Type

■ Applications

- Backlighting (illuminated advertising etc.)
- Substitution of Micro Incandescent Lamps
- Reading Lamps / Emergency Lighting
- Marker lights (e.g. steps, exit ways, etc.)
- Other Lighting

■ Outline Dimension



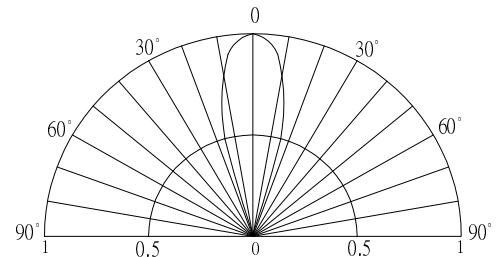
■ Absolute Maximum Rating

(Ta=25°C)

Item	Symbol	Value	Unit
DC Forward Current	I _F	60	mA
Pulse Forward Current*	I _{FP}	120	mA
Reverse Voltage	V _R	5	V
Power Dissipation	P _D	216	mW
Operating Temperature	T _{opr}	-30 ~ +85	°C
Storage Temperature	T _{stg}	-40 ~ +100	°C
Lead Soldering Temperature	T _{sol}	260°C/5sec	-

*Pulse width Max 10ms , Duty ratio max 1/10

■ Directivity



■ Electrical -Optical Characteristics

(Ta=25°C)

Item	Symbol	Condition	Min.	Typ.	Max.	Unit
DC Forward Voltage	V _F	I _F =50mA	2.9	3.1	3.6	V
DC Reverse Current	I _R	V _R =5V	-	-	10	μA
Luminous Flux	Φ _v	I _F =50mA	19	21	-	lm
Luminous Intensity*	I _v	I _F =50mA	30000	40000	-	mcd
Color Temperature	CCT	I _F =50mA	-	6500	-	K
Chromaticity Coordinates*	x	I _F =50mA	-	0.31	-	
	y	I _F =50mA	-	0.33	-	
50% Power Angle	2θ _{1/2}	I _F =50mA	-	30	-	deg

*1 Tolerance of chromaticity coordinates is ±10%

*2 Tolerance of luminous intensity is ±15%

LED & Application Technologies



Super Deluxe Power 5mm Bullet LED

OSXXXL5201P

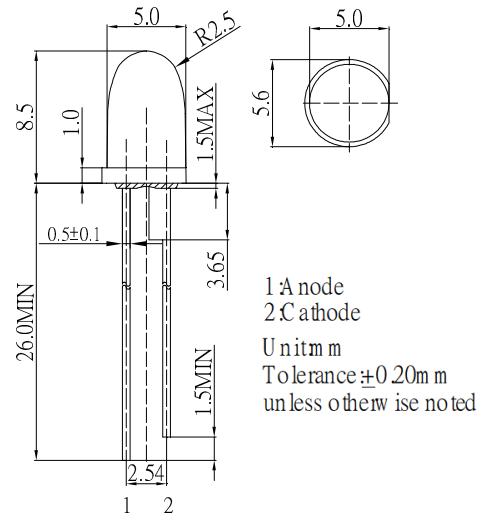
■ Features

- High Luminous LEDs
- 5mm Round Standard Directivity
- UV Resistant Epoxy
- Water Clear Type

■ Applications

- Electronic Signs And Signals
- Small Area Illuminations
- Back Lighting
- Other Lighting

■ Outline Dimension

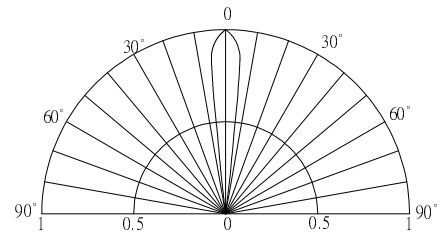


■ Absolute Maximum Rating

(Ta=25°C)

Item	Symbol	Value	Unit
DC Forward Current	I_F	75	mA
Pulse Forward Current#	I_{FP}	120	mA
Reverse Voltage	V_R	5	V
Power Dissipation	P_D	270	mW
Operating Temperature	T_{opr}	-30 ~ +85	°C
Storage Temperature	T_{stg}	-40 ~ +100	°C
Lead Soldering Temperature	T_{sol}	260°C/5sec	-

■ Directivity



#Pulse width Max.10ms Duty ratio max 1/10

■ Electrical -Optical Characteristics

(Ta=25°C)

Part Number	Color			V_F (V)*			I_R (μ A)	I_v (mcd)*			W_d (nm)/CCT(K)*			$2\theta_{1/2}$ (deg)
				Min.	Typ.	Max.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Typ.
				$I_F=70$ mA			$V_R=5$ V	$I_F=70$ mA						
OSW47L5201P	Pure White	W		2.8	3.2	3.6	10	90000	110000	-	5500-8500K(X:0.31,Y:0.34)			8
OSM57L5201P	Warm White	M	■	2.8	3.2	3.6	10	90000	110000	-	2700-3200K(X:0.44,Y:0.41)			8
OSB56L5201P	Blue	B	■	2.8	3.2	3.6	10	50000	60000	-	465	470	475	8
OSG59L5201P	Pure Green	PG	■	2.8	3.2	3.6	10	160000	180000	-	520	525	530	8

*1 Tolerance of measurements of chromaticity coordinate is $\pm 10\%$

*2 Tolerance of measurements of dominant wavelength is ± 1 nm

*3 Tolerance of measurements of luminous flux is $\pm 15\%$

*4 Tolerance of measurements of forward voltage is ± 0.1 V

5mm Round 9V 60° LED

OSXX9V5B61A

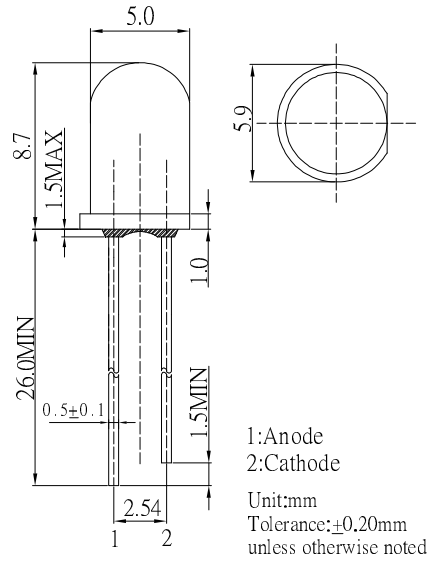
■ Features

- High Luminous LEDs
- 5mm Round Standard Directivity
- UV Resistant Epoxy
- Water Clear Type
- High Voltage Operation

■ Applications

- Backlighting (illuminated advertising etc.)
- Substitution of Micro Incandescent Lamps
- Reading Lamps / Emergency Lighting
- Marker lights (e.g. steps, exit ways, etc.)
- Other Lighting

■ Outline Dimension



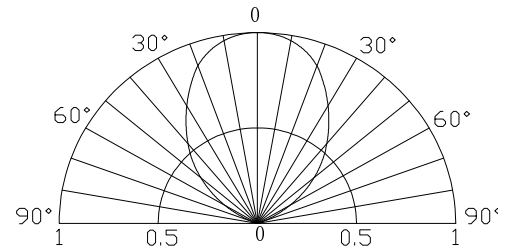
■ Absolute Maximum Rating

(Ta=25°C)

Item	Symbol	Value	Unit
DC Forward Current	I _F	20	mA
Pulse Forward Current#	I _{FP}	100	mA
Reverse Voltage	V _R	15	V
Power Dissipation	P _D	190	mW
Operating Temperature	T _{opr}	-30 ~ +85	°C
Storage Temperature	T _{stg}	-40 ~ +100	°C
Lead Soldering Temperature	T _{sol}	260°C/5sec	-

#Pulse width Max 10ms , Duty ratio max 1/10

■ Directivity



■ Electrical -Optical Characteristics

(Ta=25°C)

Part Number	Color			V _F (V)*1			I _R (μA)	Φ _V (LM)*2			I _v (mcd)*3			CCT(K)*4/x,y*5			2θ1/2(deg)
				Min.	Typ.	Max.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Typ.
				I _F =15mA			V _R =15V			I _F =15mA							
OSW59V5B61A	Cool White	W		7.8	8.5	9.5	10	11	13	-	25000	30000	-	8500-10000-18000K(X:0.27,Y:0.28)			60
OSW49V5B61A	Pure White	W		7.8	8.5	9.5	10	11	13	-	25000	30000	-	5500-6500-8500K(X:0.31,Y:0.34)			60
OSM59V5B61A	Warm White	M	■	7.8	8.5	9.5	10	10	12	-	22000	25000	-	2700-3000-3200K(X:0.44,Y:0.41)			60
OSB69V5B61A	Ice Blue	B	■	7.8	8.5	9.5	10	11	13	-	25000	30000	-	X:0.19,Y:0.29			60

*1 Tolerance of measurements of forward voltage is ±0.1V

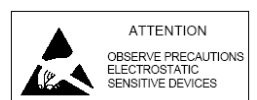
*2 Tolerance of measurements of luminous flux is ±15%

*3 Tolerance of measurements of luminous intensity is ±15%

*4 Tolerance of measurements of color temperature is ±10%

*5 Tolerance of measurements of chromaticity coordinate is ±10%

LED & Application Technologies



5mm Round Pure Green LED

OSG5DA5111A

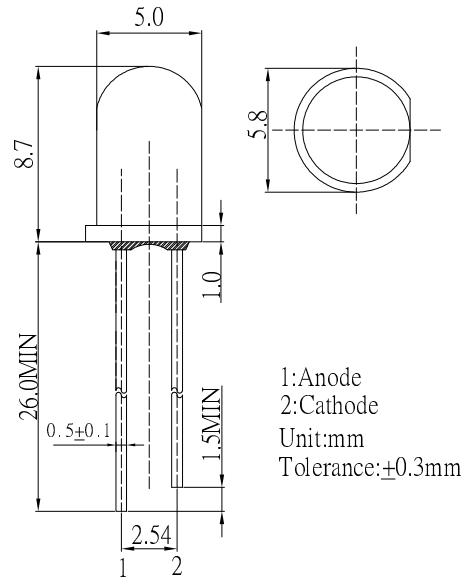
■Features

- High Luminous LEDs
- 5mm Round Standard Directivity
- Superior Weather-resistance
- UV Resistant Epoxy
- Water Clear Type

■Applications

- Electronic Signs And Signals
- Small Area Illuminations
- Back Lighting
- Other Lighting

■Outline Dimension



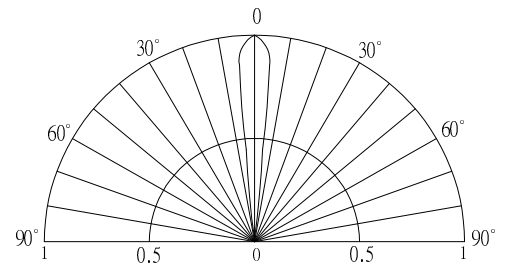
■Absolute Maximum Rating

(Ta=25°C)

Item	Symbol	Value	Unit
DC Forward Current	I _F	30	mA
Pulse Forward Current*	I _{FP}	100	mA
Reverse Voltage	V _R	5	V
Power Dissipation	P _D	108	mW
Operating Temperature	T _{opr}	-30 ~ +85	°C
Storage Temperature	T _{stg}	-40 ~ +100	°C
Lead Soldering Temperature	T _{sol}	260°C/5sec	-

*Pulse width Max.10ms Duty ratio max 1/10

■Directivity



■Electrical -Optical Characteristics

(Ta=25°C)

Item	Symbol	Condition	Min.	Typ.	Max.	Unit
DC Forward Voltage	V _F	I _F =20mA	2.9	3.1	3.6	V
DC Reverse Current	I _R	V _R =5V	-	-	10	μA
Domi. Wavelength*	λ _D	I _F =20mA	520	525	530	nm
Luminous Intensity*	I _v	I _F =20mA	25000	30000	-	mcd
50% Power Angle	2θ _{1/2}	I _F =20mA	-	15	-	deg

*1 Tolerance of measurements of dominant wavelength is ±1nm

*2 Tolerance of measurements of luminous intensity is ±15%

*3 Tolerance of measurements of forward voltage is ±0.1V

LED & Application Technologies



5mm Round Ultra Bright Warm White LED

OSM54P5111A

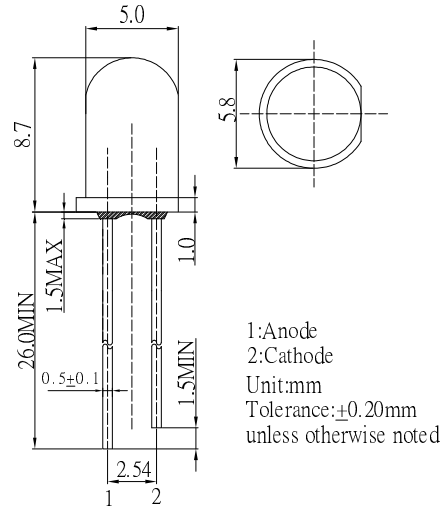
■ Features

- High Luminous LEDs
- 5mm Round Standard Directivity
- Superior Weather-resistance
- UV Resistant Epoxy
- Water Clear Type
- Perfect Beam Pattern

■ Applications

- Advertising Board
- Horticulture Application
- Traffic Light / Signal Light
- Beauty Product
- Other Lighting

■ Outline Dimension



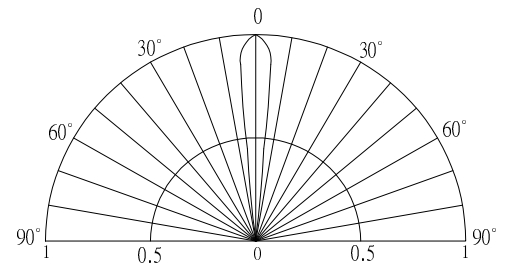
■ Absolute Maximum Rating

(Ta=25°C)

Item	Symbol	Value	Unit
DC Forward Current	I _F	30	mA
Pulse Forward Current*	I _{FP}	100	mA
Reverse Voltage	V _R	5	V
Power Dissipation	P _D	102	mW
Operating Temperature	T _{opr}	-30 ~ +85	°C
Storage Temperature	T _{stg}	-40 ~ +100	°C
Lead Soldering Temperature	T _{sol}	260°C/5sec	-

*Pulse width Max.10ms Duty ratio max 1/10

■ Directivity



■ Electrical -Optical Characteristics

(Ta=25°C)

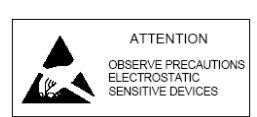
Item	Symbol	Condition	Min.	Typ.	Max.	Unit
DC Forward Voltage	V _F	I _F =30mA	2.7	2.9	3.4	V
DC Reverse Current	I _R	V _R =5V	-	-	10	μA
Luminous Flux	Φ _v	I _F =30mA	8.5	10	-	lm
Luminous Intensity*	I _v	I _F =30mA	43	60	-	cd
Color Temperature	CCT	I _F =30mA	-	3000	-	K
Chromaticity Coordinates*	x	I _F =30mA	-	0.44	-	
	y	I _F =30mA	-	0.41	-	
50% Power Angle	2θ _{1/2}	I _F =30mA	-	15	-	deg

*1 Tolerance of measurements of chromaticity coordinates is ±10%

*2 Tolerance of measurements of luminous intensity is ±15%

*3 Tolerance of measurements of forward voltage is ±0.1V

LED & Application Technologies



5mm Round 9V 15° LED

OSXX9V5111A

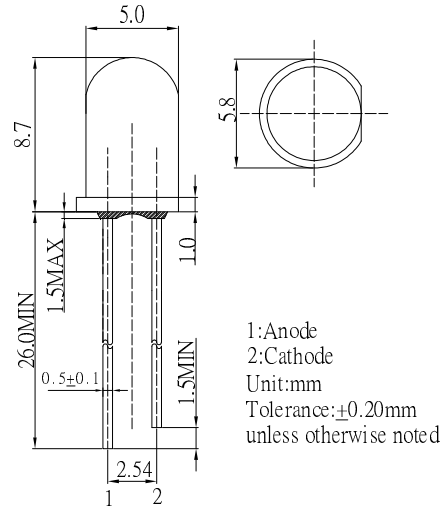
■ Features

- High Luminous LEDs
- 5mm Round Standard Directivity
- UV Resistant Epoxy
- Water Clear Type
- High Voltage Operation

■ Applications

- Backlighting (illuminated advertising etc.)
- Substitution of Micro Incandescent Lamps
- Reading Lamps / Emergency Lighting
- Marker lights (e.g. steps, exit ways, etc.)
- Other Lighting

■ Outline Dimension



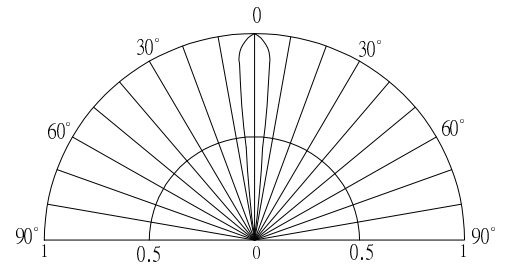
■ Absolute Maximum Rating

(Ta=25°C)

Item	Symbol	Value	Unit
DC Forward Current	I _F	20	mA
Pulse Forward Current#	I _{FP}	100	mA
Reverse Voltage	V _R	15	V
Power Dissipation	P _D	190	mW
Operating Temperature	Topr	-30 ~ +85	°C
Storage Temperature	Tstg	-40 ~ +100	°C
Lead Soldering Temperature	Tsol	260°C/5sec	-

#Pulse width Max 10ms , Duty ratio max 1/10

■ Directivity



■ Electrical -Optical Characteristics

(Ta=25°C)

Part Number	Color			V _F (V)*1			I _R (μA)	Φ _V (LM)*2			I _v (mcd)*3			CCT(K)*4/x,y*5			2θ1/2(deg)
				Min.	Typ.	Max.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Typ.
				I _F =15mA			V _R =15V	I _F =15mA									
OSW59V5111A	Cool White	W		7.8	8.5	9.5	10	11	13	-	90000	100000	-	8500-10000-18000K(X:0.27,Y:0.28)			15
OSW49V5111A	Pure White	W		7.8	8.5	9.5	10	11	13	-	90000	100000	-	5500-6500-8500K(X:0.31,Y:0.34)			15
OSM59V5111A	Warm White	M	■	7.8	8.5	9.5	10	10	12	-	80000	90000	-	2700-3000-3200K(X:0.44,Y:0.41)			15
OSB69V5111A	Ice Blue	B	■	7.8	8.5	9.5	10	11	13	-	90000	100000	-	X:0.19,Y:0.29			15

*1 Tolerance of measurements of forward voltage is ±0.1V

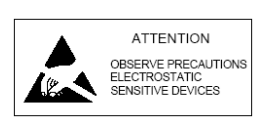
*2 Tolerance of measurements of luminous flux is ±15%

*3 Tolerance of measurements of luminous intensity is ±15%

*4 Tolerance of measurements of color temperature is ±10%

*5 Tolerance of measurements of chromaticity coordinate is ±10%

LED & Application Technologies



5mm Round Ultra Bright White LED

OSW44P5111A

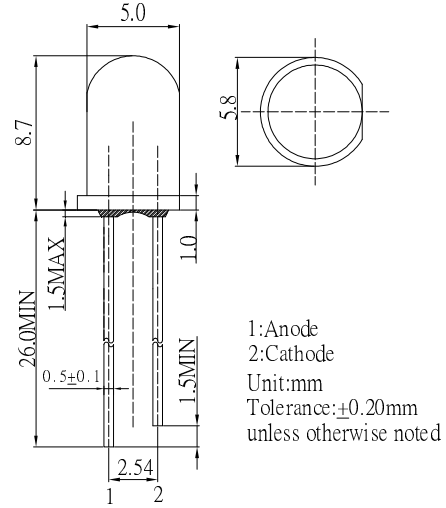
■ Features

- High Luminous LEDs
- 5mm Round Standard Directivity
- Superior Weather-resistance
- UV Resistant Epoxy
- Water Clear Type
- Perfect Beam Pattern

■ Applications

- Advertising Board
- Horticulture Application
- Traffic Light / Signal Light
- Beauty Product
- Other Lighting

■ Outline Dimension



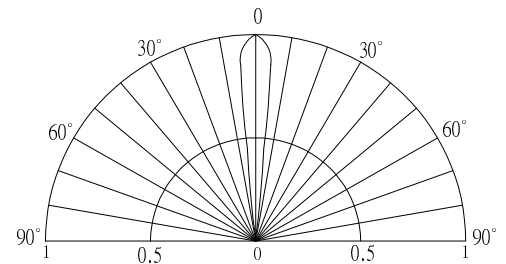
■ Absolute Maximum Rating

(Ta=25°C)

Item	Symbol	Value	Unit
DC Forward Current	I _F	30	mA
Pulse Forward Current*	I _{FP}	100	mA
Reverse Voltage	V _R	5	V
Power Dissipation	P _D	102	mW
Operating Temperature	Topr	-30 ~ +85	°C
Storage Temperature	Tstg	-40 ~ +100	°C
Lead Soldering Temperature	Tsol	260°C/5sec	-

*Pulse width Max.10ms Duty ratio max 1/10

■ Directivity



■ Electrical -Optical Characteristics

(Ta=25°C)

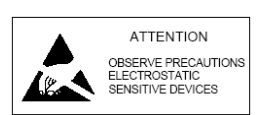
Item	Symbol	Condition	Min.	Typ.	Max.	Unit
DC Forward Voltage	V _F	I _F =30mA	2.7	2.9	3.4	V
DC Reverse Current	I _R	V _R =5V	-	-	10	μA
Luminous Flux	Φ _v	I _F =30mA	8.5	10	-	lm
Luminous Intensity*	I _v	I _F =30mA	43	60	-	cd
Color Temperature	CCT	I _F =30mA	-	6500	-	K
Chromaticity Coordinates*	x	I _F =30mA	-	0.31	-	
	y	I _F =30mA	-	0.33	-	
50% Power Angle	2θ _{1/2}	I _F =20mA	-	15	-	deg

*1 Tolerance of measurements of chromaticity coordinates is ±10%

*2 Tolerance of measurements of luminous intensity is ±15%

*3 Tolerance of measurements of forward voltage is ±0.1V

LED & Application Technologies



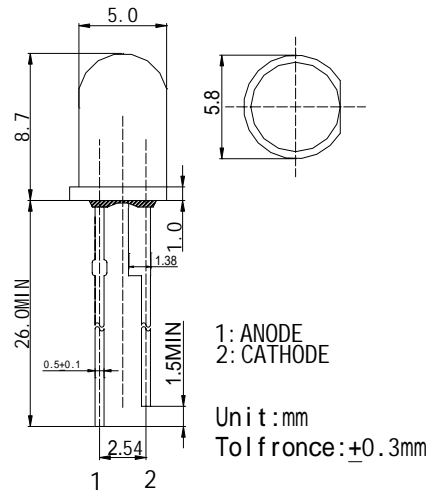
■Features

- Deluxe Power LEDs
- 5ø Standard Directivity
- Superior Weather-resistance
- UV Resistant Epoxy
- Water Clear Type

■Applications

- Automotive Dashboard Lighting
- Back Lighting

■Outline Dimension

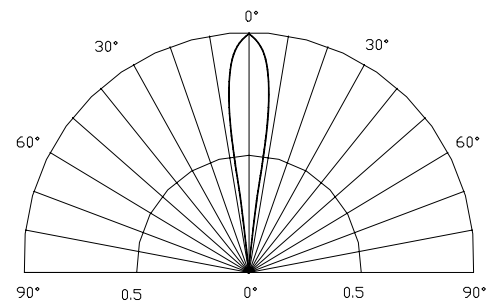


■Absolute Maximum Rating (Ta=25 °C)

Item	Symbol	Value	Unit
DC Forward Current	I_F	100	mA
Pulse Forward Current*	I_{FP}	150	mA
Reverse Voltage	V_R	5	V
Power Dissipation	P_D	500	mW
Operating Temperature	T_{opr}	-30 ~ +80	
Storage Temperature	T_{stg}	-30 ~ +100	
Lead Soldering Temperature	T_{sol}	260 /3sec	-

*Pulse width Max.10ms Duty ratio max 1/10

■Directivity



■Electrical -Optical Characteristics (Ta=25 °C)

Item	Symbol	Condition	Min.	Typ.	Max.	Unit
DC Forward Voltage	V_F	$I_F=75mA$	3.0	3.6	4.2	V
DC Reverse Current	I_R	$V_R=5V$			10	μA
Luminous Intensity	I_v	$I_F=75mA$	30000	40000	50000	mcd
Chromaticity Coordinate*	x	$I_F=75mA$	0.19	0.25	0.29	
	y	$I_F=75mA$	0.21	0.25	0.28	
50% Power Angle	$2\theta_{1/2}$	$I_F=75mA$		15	-	deg