

白色 超薄型 チップ LED 1608

White Chip LED

SDDW

Series



特長

超薄型チップLED
(1.6 × 0.8 × 0.4)
白色発光 (青色LED + 赤・緑2波長蛍光体)
静電気耐圧 ±2kV (Min.)

用途

インジケータ
照光スイッチ
懐中電灯等の簡易光源
ファインピッチディスプレイ光源

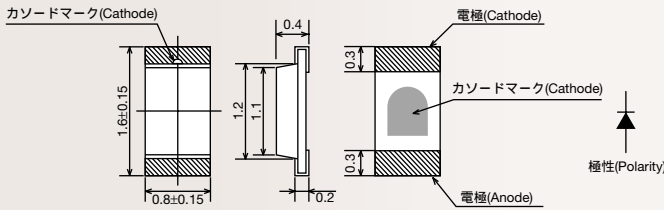
Features

Ultra-thin chip LED
(1.6 × 0.8 × 0.4)
White light (blue LED + 2-wavelength
[red and green] phosphor)
ESD tolerance: ±2 kV (Min.)

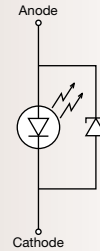
Applications

Indicators
Illuminated switches
Electric torch light sources
Fine-pitch display light sources

外形寸法図 Package Dimensions



回路図 Circuit Diagram



推奨はんだ付けパターン Recommended soldering pattern



単位 Unit : mm

絶対最大定格 (Ta=25) Absolute Maximum Ratings

許容損失 (mW) Power Dissipation	順方向電流 (mA) DC Forward Current	パルス順方向電流 (mA) Peak Pulse Forward Current	逆方向電流 (mA) Reverse Current	動作温度 () Operating Temperature Range	保存温度 () Storage Temperature Range
80	20	100	120	-35 ~ +85	-40 ~ +100

: Duty 1/10 Pulse Width 10ms

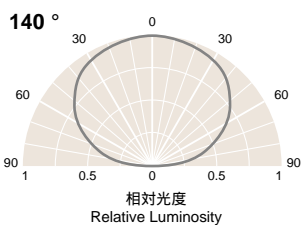
保存温度は、チップLED単体 (梱包部材は除く) の温度です。

The above storage temperature range is specified only for chip LEDs (packing materials excluded).

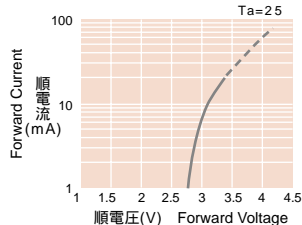
電気的・光学的特性 (Ta=25) Electro-Optical Characteristics

発光色 Emitting Color	品番 Part No.	指向角 Typical Viewing Angle 2 / 1/2	基準電流 (mA) Standard Current	光度 (mcd) Luminosity		順方向電圧 (V) Forward Voltage		逆方向電流 (mA) Reverse Current Max. (Vr=1.0V)	色度座標 Chromatic Coordinates			
				Typ.	Max.	Typ.	Max.		Min.	Typ.	Max.	
白 White	SDDW16040B1	140°	10	53		3.1	3.5	120	x=	0.257	0.292	0.328
									y=	0.251	0.304	0.358

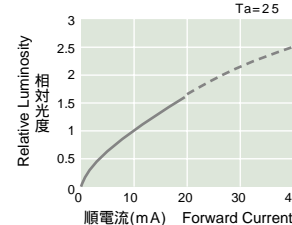
指向代表特性 Directive Characteristics



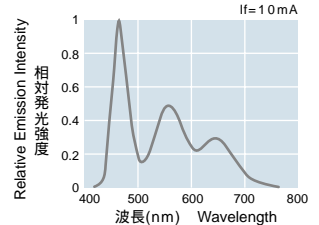
順電流-順電圧特性 Forward Current vs. Forward Voltage



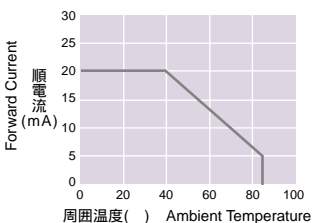
相対光度-順電流特性 Relative Luminosity vs. Forward Current



発光スペクトル Relative Emission Intensity vs. Wavelength



順電流-周囲温度特性 Forward Current vs. Ambient Temperature



白色 超薄型 チップ LED 1608

White Chip LED



Low Voltage

SDDW

Series



特長

超薄型チップLED
(1.6 × 0.8 × t0.4)
白色発光 (青色LED + 赤・緑2波長蛍光体)
低電圧駆動
静電気耐圧 ±2kV (Min.)

用途

携帯電話のキーパッド等
低駆動電圧製品
電池 (低電圧) 駆動等による光源

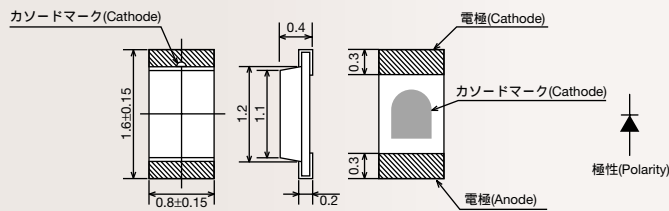
Features

Ultra-thin chip LED
(1.6 × 0.8 × t0.4)
White light (blue LED + 2-wavelength [red and green] phosphor)
Low voltage operated
ESD tolerance: ±2 kV (Min.)

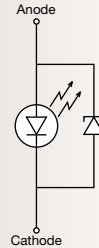
Applications

Mobile phone key pads, etc
Low voltage drive products
Battery-powered (low voltage) light sources

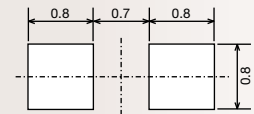
外形寸法図 Package Dimensions



回路図 Circuit Diagram



推奨はんだ付けパターン Recommended soldering pattern



単位 Unit : mm

絶対最大定格 (Ta=25) Absolute Maximum Ratings

許容損失 (mW) Power Dissipation	順方向電流 (mA) DC Forward Current	パルス順方向電流 (mA) Peak Pulse Forward Current	逆方向電流 (mA) Reverse Current	動作温度 () Operating Temperature Range	保存温度 () Storage Temperature Range
80	20	100	120	-35 ~ +85	-40 ~ +100

: Duty 1/10 Pulse Width 10ms

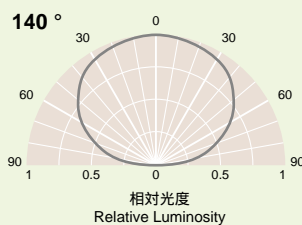
保存温度は、チップLED単体 (梱包部材は除く) の温度です。

The above storage temperature range is specified only for chip LEDs (packing materials excluded).

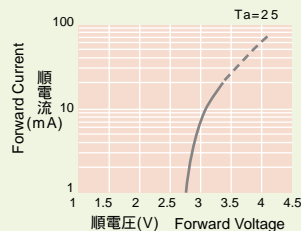
電氣的・光学的特性 (Ta=25) Electro-Optical Characteristics Low Voltage

発光色 Emitting Color	品番 Part No.	指向角 Typical Viewing Angle 2 1/2	基準電流 (mA) Standard Current	光度 (mcd) Luminosity	順方向電圧 (V) Forward Voltage		逆方向電流 (mA) Reverse Current Max. (Vr=1.0V)	色度座標 Chromatic Coordinates			
				Typ.	Typ.	Max.		Min.	Typ.	Max.	
白 White	SDDW16041B1	140°	5	23	2.85	3.2	120	x=	0.257	0.292	0.328
								y=	0.251	0.304	0.358

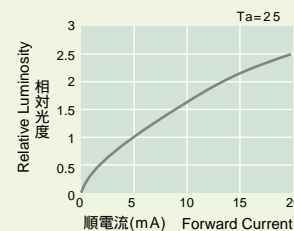
指向代表特性 Directive Characteristics



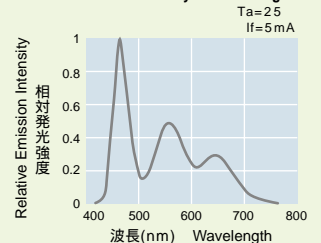
順電流-順電圧特性 Forward Current vs. Forward Voltage



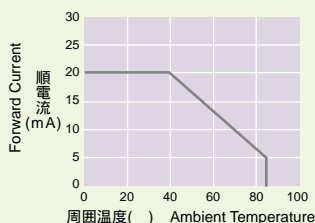
相対光度-順電流特性 Relative Luminosity vs. Forward Current



発光スペクトル Relative Emission Intensity vs. Wavelength



順電流-周囲温度特性 Forward Current vs. Ambient Temperature



単色 超薄型 チップ LED 1608

Monochrome Chip LED

SDD/SDC

Series



SDD

SDC

特長

超薄型チップLED
(1.6 × 0.8 × t0.4)
静電気耐圧 ±2kV (Min.)

用途

インジケータ
照光スイッチ
懐中電灯等の簡易光源
ファインピッチディスプレイ光源

Features

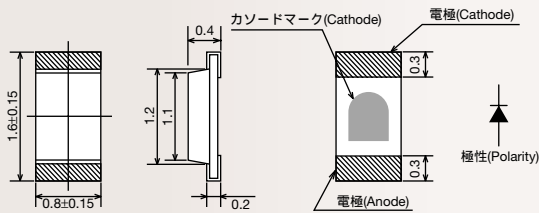
Ultra-thin chip LED
(1.6 × 0.8 × t0.4)
ESD tolerance: ±2 kV (Min.)

Applications

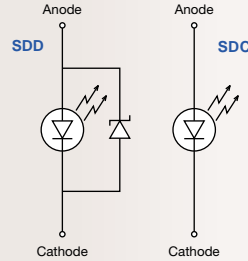
Indicators
Illuminated switches
Electric torch light sources
Fine-pitch display light sources

外形寸法図

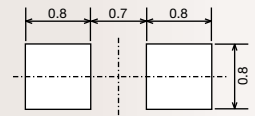
Package Dimensions



回路図 Circuit Diagram



推奨はんだ付けパターン Recommended soldering pattern



単位 Unit : mm

絶対最大定格 (Ta=25) Absolute Maximum Ratings

許容損失 (mW) Power Dissipation	順方向電流 (mA) DC Forward Current	パルス順方向電流 (mA) Peak Pulse Forward Current	逆方向電流 (mA) Reverse Current	逆方向電圧 (V) Reverse Voltage	動作温度 (°C) Operating Temperature Range	保存温度 (°C) Storage Temperature Range
80	20	100	120	-	-35 ~ +85	-40 ~ +100
	30		-	5		

: Duty 1/10 Pulse Width 10ms

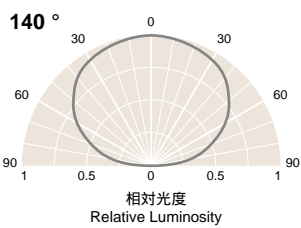
保存温度は、チップLED単体 (梱包部材は除く) の温度です。

The above storage temperature range is specified only for chip LEDs (packing materials excluded).

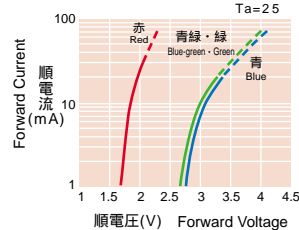
電気的・光学的特性 (Ta=25) Electro-Optical Characteristics

発光色 Emitting Color	品番 Part No.	指向角 Typical Viewing Angle 2 1/2	基準電流 (mA) Standard Current	光度 (mcd) Luminosity	順方向電圧 (V) Forward Voltage		逆方向電流 (mA) Reverse Current	逆方向電流 (µA) Reverse Current	ドミナント波長 (nm) Dom. Wavelength		
				Typ.	Typ.	Max.	Max. (Vr=1.0V)	Max. (Vr=5.0V)	Min.	Typ.	Max.
青 Blue	SDDB16000A1	140°	10	37	3.1	3.5	120	-	460	470	480
青緑 Blue-green	SDDC16000A1			85	3.0				490	500	510
緑 Green	SDDG16000A1			100	3.0	520			530	540	
赤 Red	SDCR16000A1			45	1.8	2.3			-	50	611

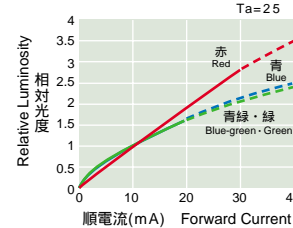
指向代表特性 Directive Characteristics



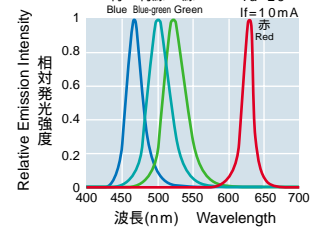
順電流-順電圧特性 Forward Current vs. Forward Voltage



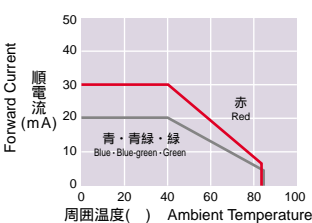
相対光度-順電流特性 Relative Luminosity vs. Forward Current



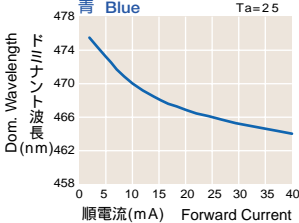
発光スペクトル Relative Emission Intensity vs. Wavelength



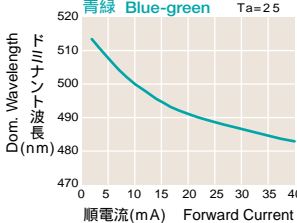
順電流-周囲温度特性 Forward Current vs. Ambient Temperature



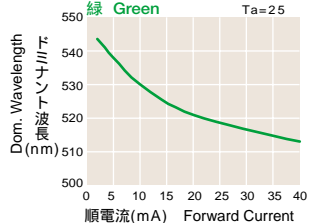
ドミナント波長-順電流特性 Dom. Wavelength vs. Forward Current



ドミナント波長-順電流特性 Dom. Wavelength vs. Forward Current



ドミナント波長-順電流特性 Dom. Wavelength vs. Forward Current



単色 超薄型 チップ LED 1608

Monochrome Chip LED

SDD Series

Low Voltage



特長

超薄型チップLED
(1.6 × 0.8 × t0.4)
低電圧駆動
静電気耐圧 ±2kV (Min.)

用途

携帯電話のキーボード等
低駆動電圧製品
電池 (低電圧) 駆動等による光源

Features

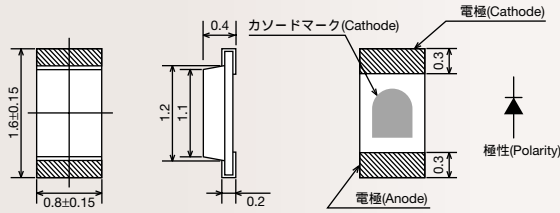
Ultra-thin chip LED
(1.6 × 0.8 × t0.4)
Low voltage operated
ESD tolerance: ±2 kV (Min.)

Applications

Cellular phone key pads
Low voltage drive products
Battery-powered (low voltage) light sources

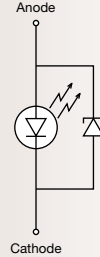
外形寸法図

Package Dimensions



回路図

Circuit Diagram



推奨はんだ付けパターン

Recommended soldering pattern



単位 Unit : mm

絶対最大定格 (Ta=25) Absolute Maximum Ratings

許容損失 (mW) Power Dissipation	順方向電流 (mA) DC Forward Current	パルス順方向電流 (mA) Peak Pulse Forward Current	逆方向電流 (mA) Reverse Current	動作温度 () Operating Temperature Range	保存温度 () Storage Temperature Range
80	20	100	120	-35 ~ +85	-40 ~ +100

: Duty 1/10 Pulse Width 10ms

保存温度は、チップLED単体 (梱包材は除く) の温度です。

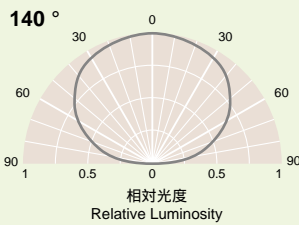
The above storage temperature range is specified only for chip LEDs (packing materials excluded).

電氣的・光学的特性 (Ta=25) Electro-Optical Characteristics

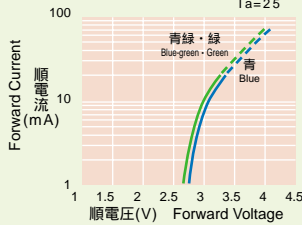
Low Voltage

発光色 Emitting Color	品番 Part No.	指向角 Typical Viewing Angle 2 1/2	基準電流 (mA) Standard Current	光度 (mcd) Luminosity		順方向電圧 (V) Forward Voltage		逆方向電流 (mA) Reverse Current Max. (Vr=1.0V)	ドミナント波長 (nm) Dom. Wavelength		
				Typ.	Max.	Typ.	Max.		Min.	Typ.	Max.
青 Blue	Sddb16001A1	140 °	5	18	2.85	3.0	120	460	470	480	
青緑 Blue-green	Sddc16001A1			42				490	500	510	
緑 Green	Sddg16001A1			49				520	530	540	

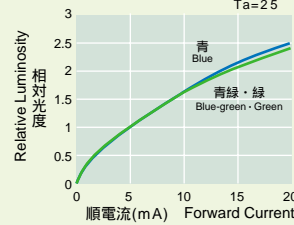
指向代表特性 Directive Characteristics



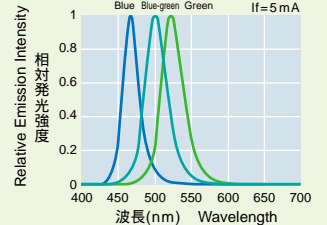
順電流-順電圧特性 Forward Current vs. Forward Voltage



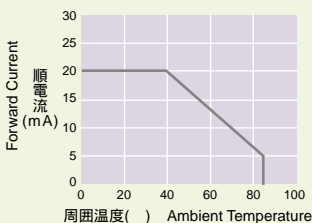
相対光度-順電流特性 Relative Luminosity vs. Forward Current



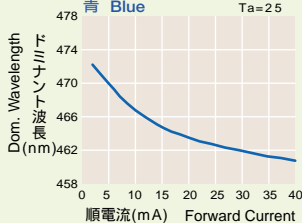
発光スペクトル Relative Emission Intensity vs. Wavelength



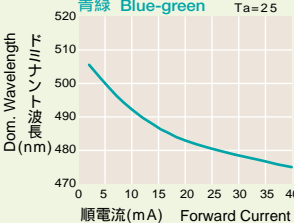
順電流-周囲温度特性 Forward Current vs. Ambient Temperature



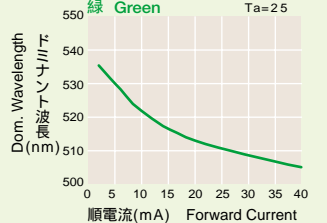
ドミナント波長-順電流特性 Dom. Wavelength vs. Forward Current



ドミナント波長-順電流特性 Dom. Wavelength vs. Forward Current



ドミナント波長-順電流特性 Dom. Wavelength vs. Forward Current



超薄型 3 in 1 チップ LED 1615

3 in 1 Chip LED

SDDF

Series



特長

超薄型マルチチップLED
(1.6 × 1.5 × t0.4)
赤 緑 青のフルカラー
静電気耐圧 ±2kV (Min.)

用途

LCDバックライト光源
インジケータ
照光スイッチ等の簡易光源
ファインピッチディスプレイ光源
移動用携帯端末
デジタル家電

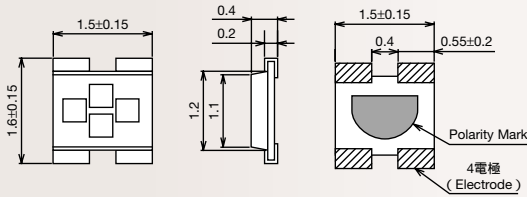
Features

Ultra-thin multi-chip LED
(1.6 × 1.5 × t0.4)
Full color (Red, Green, Blue)
ESD tolerance: ±2 kV (Min.)

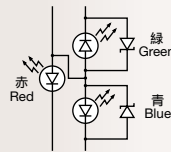
Applications

LCD backlight sources
Indicators
Light sources for illuminated switches
Fine-pitch display light sources
PDAs
Digital home appliances

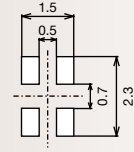
外形寸法図 Package Dimensions



回路図 Circuit Diagram



推奨はんだ付けパターン Recommended soldering pattern



単位 Unit : mm

絶対最大定格 (Ta=25) Absolute Maximum Ratings

発光色 Emitting Color	許容損失 (mW) Power Dissipation	順方向電流 (mA) DC Forward Current	パルス順方向電流 (mA) Peak Pulse Forward Current	逆方向電流 (mA) Reverse Current	逆方向電圧 (V) Reverse Voltage	動作温度 () Operating Temperature Range	保存温度 () Storage Temperature Range
青 Blue	70	20	80	120	-	- 35 ~ + 85	- 40 ~ + 100
緑 Green							
赤 Red		30		-	5		

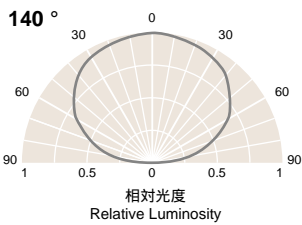
: Duty 1/10 Pulse Width 10ms
2色以上点灯した場合の許容損失は、105mW以内です。
保存温度は、チップLED単体 (梱包部材は除く) の温度です。

When two or more color LEDs are on, power dissipation is 105mW or less.
The above storage temperature range is specified only for chip LEDs (packing materials excluded).

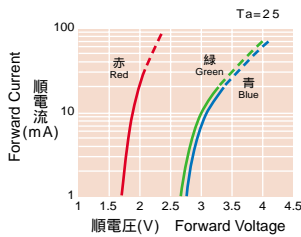
電気的・光学的特性 (Ta=25) Electro-Optical Characteristics

発光色 Emitting Color	品番 Part No.	指向角 Typical Viewing Angle 2 1/2	基準電流 (mA) Standard Current	光度 (mcd) Luminosity	順方向電圧 (V) Forward Voltage		逆方向電流 (mA) Reverse Current	逆方向電流 (μA) Reverse Current	ドミナント波長 (nm) Dom. Wavelength		
				Typ.	Typ.	Max.	Max. (Vr=1.0V)	Max. (Vr=5.0V)	Min.	Typ.	Max.
青 Blue	SDDF02000A1	140 °	10	60	3.1	3.5	120	-	460	470	480
緑 Green				180	3.0				515	525	535
赤 Red				60	1.8	2.3	-	50	611	621	631

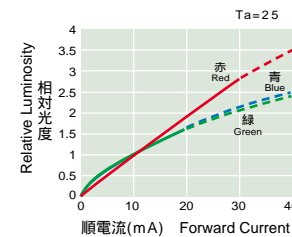
指向代表特性 Directive Characteristics



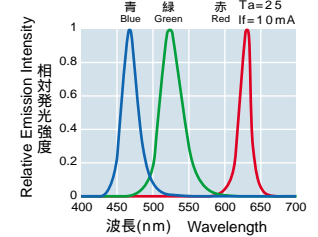
順電流-順電圧特性 Forward Current vs. Forward Voltage



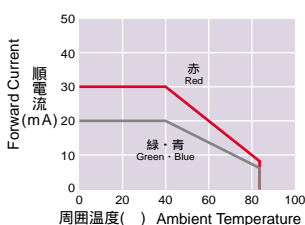
相対光度-順電流特性 Relative Luminosity vs. Forward Current



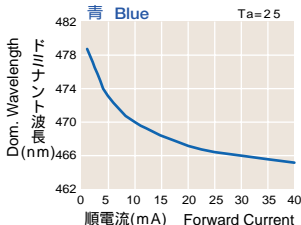
発光スペクトル Relative Emission Intensity vs. Wavelength



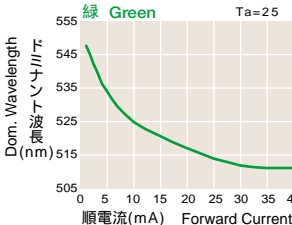
順電流-周囲温度特性 Forward Current vs. Ambient Temperature



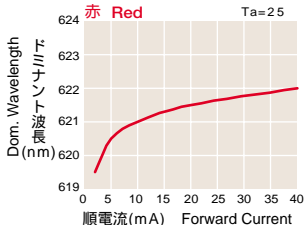
ドミナント波長-順電流特性 Dom. Wavelength vs. Forward Current



ドミナント波長-順電流特性 Dom. Wavelength vs. Forward Current



ドミナント波長-順電流特性 Dom. Wavelength vs. Forward Current



超薄型 3 in 1 チップ LED 1615

3 in 1 Chip LED

SDDF

Series



Low Voltage

特長

超薄型マルチチップLED
(1.6 × 1.5 × t0.4)
低電圧駆動
赤 緑 青のフルカラー
静電気耐圧 ±2kV (Min.)

用途

携帯電話のキーパッド等
低駆動電圧製品
電池 (低電圧) 駆動等による光源
移動用携帯端末
デジタル家電

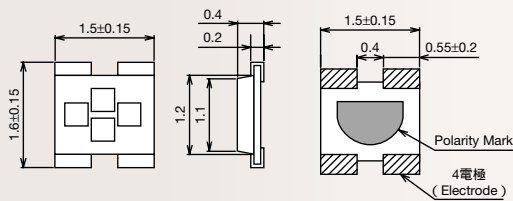
Features

Ultra-thin multi-chip LED
(1.6 × 1.5 × t0.4)
Low voltage operated
Full color (Red, Green, Blue)
ESD tolerance: ±2 kV (Min.)

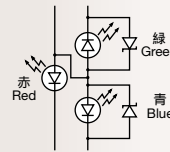
Applications

Cellular phone key pads
Low voltage drive products
Battery-powered (low voltage) light sources
PDAs
Digital home appliances

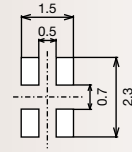
外形寸法図 Package Dimensions



回路図 Circuit Diagram



推奨はんだ付けパターン Recommended soldering pattern



単位 Unit : mm

絶対最大定格 (Ta=25) Absolute Maximum Ratings

発光色 Emitting Color	許容損失 (mW) Power Dissipation	順方向電流 (mA) DC Forward Current	パルス順方向電流 (mA) Peak Pulse Forward Current	逆方向電流 (mA) Reverse Current	逆方向電圧 (V) Reverse Voltage	動作温度 () Operating Temperature Range	保存温度 () Storage Temperature Range
青 Blue	70	20	80	120	-	- 35 ~ + 85	- 40 ~ + 100
緑 Green							
赤 Red							

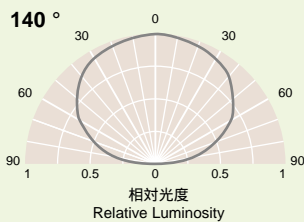
: Duty 1/10 Pulse Width 10ms
2色以上点灯した場合の許容損失は、105mW以内です。
保存温度は、チップLED単体 (梱包材は除く) の温度です。

When two or more color LEDs are on, power dissipation is 105mW or less.
The above storage temperature range is specified only for chip LEDs (packing materials excluded).

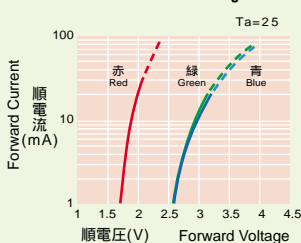
電気的・光学的特性 (Ta=25) Electro-Optical Characteristics Low Voltage

発光色 Emitting Color	品番 Part No.	指向角 Typical Viewing Angle 2 1/2	基準電流 (mA) Standard Current	光度 (mcd) Luminosity	順方向電圧 (V) Forward Voltage		逆方向電流 (mA) Reverse Current	逆方向電流 (µA) Reverse Current Max. (Vr=5.0V)	ドミナント波長 (nm) Dom. Wavelength					
				Typ.	Typ.	Max.			Max. (Vr=1.0V)	Min.	Typ.	Max.		
青 Blue	SDDF02001A1	140 °	5	30	2.85	3.0	120	-	460	470	480			
緑 Green				90								515	525	535
赤 Red				30								611	621	631

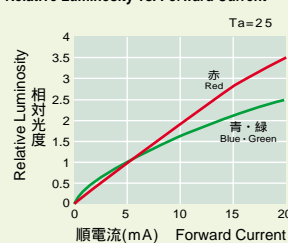
指向代表特性
Directive Characteristics



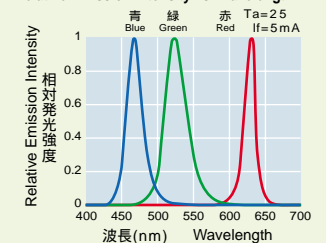
順電流-順電圧特性
Forward Current vs. Forward Voltage



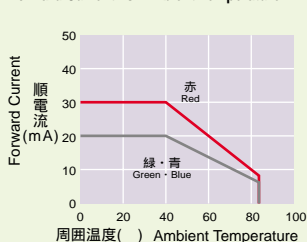
相対光度-順電流特性
Relative Luminosity vs. Forward Current



発光スペクトル
Emission Spectrum Intensity vs. Wavelength



順電流-周囲温度特性
Forward Current vs. Ambient Temperature



ドミナント波長-順電流特性
Dom. Wavelength vs. Forward Current

