



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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高輝度白色LED

# WHITE LED

High Brightness White LED



世界トップレベルの薄さと明るさ。  
高いコストパフォーマンスを誇る白色LED。

With the world's thinnest surface  
and highest brightness,  
the white LED boasts superb cost performance.

## ■ カラーLCDバックライト用 For Color LCD Backlight Source

- 携帯電話等のLCDバックライト光源に適した、超高輝度・薄型のパッケージをご用意しました。  
Ultra brightness and thin packages are suitable for LCD backlight sources in cellular phones.
- CL-A100シリーズは、カーナビ等のLCDバックライト光源に適した中型サイズです。  
CL-A100 series is medium size and suitable for LCD backlight sources in car navigation systems.
- 全てのWhite LEDは鉛フリー対応製品です。  
All White LEDs are lead-free products.

### ● パッケージ Package

Series	Die type	Reflector	Size (L·W·H)	Page
CL-A100	1W2	○	4.5×1.6×0.8	P.36
	2W2			
CL-A120	1W	○	2.8×0.95×0.8	P.59
CL-932	BW05	○	2.8×1.05×0.6	P.68
CL-934		○	2.8×0.85×0.5	P.69
CL-935		○	2.8×0.85×0.4	P.70



CL-932



CL-A100



CL-934



CL-A120



CL-935

### ● 絶対最大定格 Absolute Maximum Rating

(Ta 25°C)

Series	Die type	P (mW)	I <sub>F</sub> (mA)	I <sub>FP</sub> (mA)*1	V <sub>R</sub> (V)	I <sub>R</sub> (mA)	Top (°C)	Tst (°C)
CL-A100	1W2	242	70	150	—	70	-40~+100	-40~+100
	2W2	300	90	180	—	90		
CL-A120	1W	155	40	100	—	40	-40~+100	-40~+100
CL-932/934/935	BW05	114	30	100	5	—	-25~+85	-30~+90

\*1 I<sub>FP</sub>の条件はduty 1/10、パルス巾0.1msecです。Conditions for I<sub>FP</sub> are pulse of 1/10 duty and 0.1msec width.

●電光的学的特性 Electro-optical Characteristics

(Ta 25°C)

I<sub>F</sub>=60mA

Product code	V <sub>F</sub> (V)		I <sub>v</sub> (cd)	
	Typ	Max	Min	Typ
CL-A100-1W2-SD	3.15	3.4	6.1	7.8

I<sub>F</sub>=20mA

Product code	V <sub>F</sub> (V)		I <sub>v</sub> (mcd)	
	Typ	Max	Min	Typ
CL-932F-BW05-SD	(3.3)	(3.6)	—	(2,200)

I<sub>F</sub>=80mA

Product code	V <sub>F</sub> (V)		I <sub>v</sub> (cd)	
	Typ	Max	Min	Typ
CL-A100-2W2-SD	3.05	3.3	7.5	9.5

I<sub>F</sub>=20mA

Product code	V <sub>F</sub> (V)		I <sub>v</sub> (mcd)	
	Typ	Max	Min	Typ
CL-934F-BW05-SD	(3.3)	(3.6)	—	(2,050)

I<sub>F</sub>=30mA

Product code	V <sub>F</sub> (V)		I <sub>v</sub> (cd)	
	Typ	Max	Min	Typ
CL-A120-1W-SD	3.45	3.7	3.09	3.4

I<sub>F</sub>=20mA

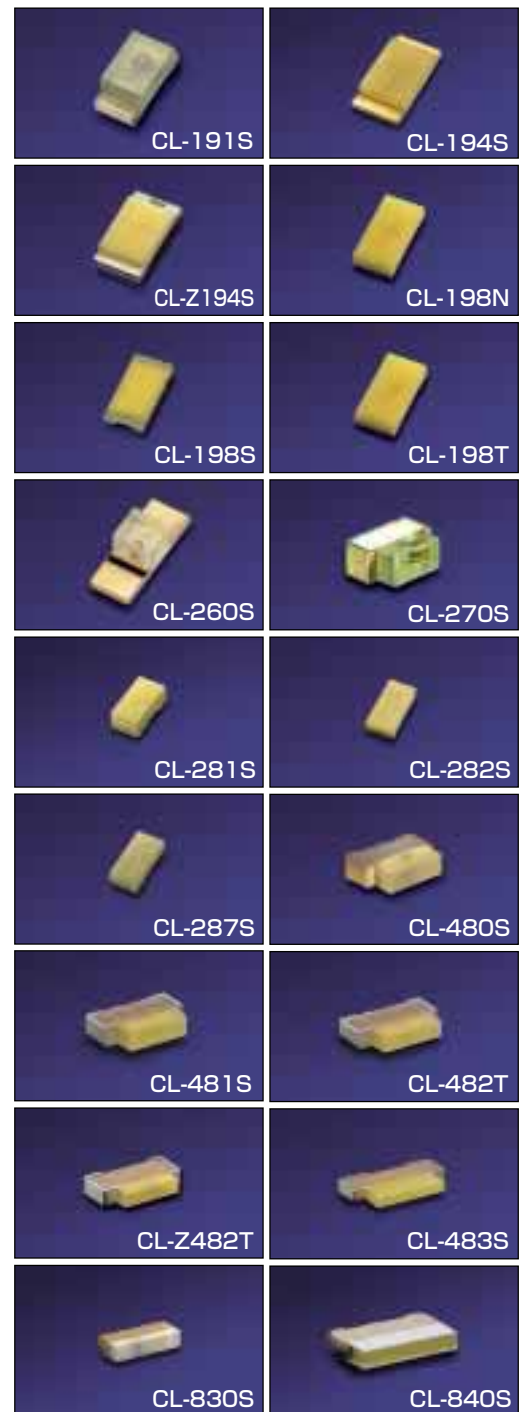
Product code	V <sub>F</sub> (V)		I <sub>v</sub> (mcd)	
	Typ	Max	Min	Typ
CL-935F-BW05-SD	(3.3)	(3.6)	—	(2,000)

■ キーパッド用 For Key Pad

- 絶対最大定格の異なる5種類のタイプからお選びいただけます。  
Five different types for absolute maximum rating are available.
- 実装形態に合わせて選べる18種類のパッケージを用意しました。  
18 kinds of packages are available to suit your set designing.

●パッケージ Package

Series	Die type	Size(L·W·H)mm	Page
CL-191S	—	1.6×0.8×0.6	—
CL-194S	WS	1.6×0.8×0.3	P.42
CL-Z194S	WS	1.6×0.8×0.3	P.44
CL-198N	WS	1.6×0.8×0.25	P.48
CL-198S	WS	1.6×0.8×0.2	P.49
CL-198T	WZ	1.6×0.8×0.2	P.50
CL-260S	—	3.4×1.25×1.1	—
CL-270S	—	1.6×1.15×0.6	—
CL-281S	WS	1.0×0.5×0.35	P.52
CL-282S	WZ	1.0×0.5×0.2	P.53
CL-287S	WQ	1.0×0.5×0.25	P.54
	WS		
CL-480S	WS	1.8×1.1×0.5	P.61
CL-481S	WS	1.8×1.1×0.4	P.62
CL-482T	WS	1.8×1.0×0.3	P.63
CL-Z482T	WS	1.8×1.0×0.3	P.64
CL-483S	WT	1.8×0.88×0.2	P.65
CL-830S	WS	1.0×0.5×0.3	P.66
CL-840S	WT	1.8×1.0×0.3	P.67



●絶対最大定格 Absolute maximum rating (Ta 25°C)

Die type	P(mw)	I <sub>F</sub> (mA)	I <sub>FP</sub> (mA)	V <sub>R</sub> (V)	Top(°C)	Tst(°C)
WQ	66	20	100	5	-25~+80	-30~+85
WS	76	20	50			
WT	76	20	100	4		
WZ	33	10	50	5		

※ 一部の機種において、Pの数値が上表と異なるものがあります。詳細は製品仕様書をご覧ください。  
The P value for some types differs from the values given above. For details refer to the product specifications.



CL-260S:プリント基板に実装された状態  
Parts mounted on PCB