### Precautions for use of Compact Chip LED products

- (1) When adopting the product for mass production, please exchange formal specifications with us.
- (2) Do not reverse-engineer the product including disassemble or analyze without our approval.
- (3) The product is not in conformity to IATF16949 or intended to be used for invehicle application. The product is not designed or manufactured to be used for special application (e.g. trains, ships, airplanes, spaceships, submarine repeaters, atomic energy control systems, traffic equipment, combustion equipment, medical devices, and safety devices). We will not guarantee any application suitability for goods like those described above that require special quality and reliability. In cases where the product is used in special applications and it causes extensive property damage, threatens human life or damages the human body, we will not be held liable.
- (4) The specification and appearance of the product may change without notice for improvement, etc.
- (5) This technical information and data is provided for users as is, and we do not guarantee that it is free from errors or defect in technical information and data, or this technical information and data conform to special applications, or this technical information and data does not infringe any rights of the user or third parties other than the user, or any other contents (including changes in contents for improvement of the specification and appearance of the product) thereof.

# CL-963 Series



1.4(L) × 1.05(W) × 0.6(H) mm

#### ●絶対最大定格 Absolute Maximum Rating\*1

(Ta 25℃)

Product code	Pd (mW)	lF (mA)	IFP*2 (mA)	VR (V)	Top (℃)	Tst (℃)	
CL-963-1W-C01	32	10	50	4	-25~+80	-30~+85	

- \*1 1素子当たりの値です。/\*2 IFPの条件はduty 1/10、パルス幅0.1msecです。
- \*1 The values are based on 1-die performance. / \*2 Conditions for IFP are pulse of 1/10 duty and 0.1 msec width.

## ●電気的光学的特性 Electrical and Optical Characteristics

(Ta 25℃)

Parameter	Symbol	Conditions	М	IN	TYP	MAX	Unit
順電圧 Forward Voltage*1	VF	IF=7mA	_		2.8	3.42	V
逆電流 Reverse Current*1	lr	VR=4V				2	μΑ
光度 Luminous Intensity*2	lv	IF=7mA	362		520	754	mcd
色度座標 Chromaticity coordinates*3	х, у	IF=7mA		x(±	0.02)	$y(\pm 0.02)$	
			а	0.	263	0.210	
			b	0.	257	0.240	
			С	0.	298	0.317	
			d	0.	304	0.287	

- \*1 1素子当たりの値です。/\*2 NIST規格に準拠、各素子同時点灯の値です。/\*3 色度座標は、a、b、c、dに囲まれた範囲です。
- \*1 The values are based on 1-die performance./\*2 Compliant with NIST standards. The values are based on the condition that each die lights simultaneously./\*3 Chromaticity coordinates are surrounded by points a, b, c, and d.

包装数量:3,000個/1リール(φ180mm) Loaded quantity:3,000pcs./1 reel(φ180mm)

#### 特徴 Features

1. 白色LED

White LED

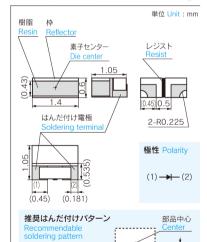
2. 側面発光、小型

Side-lighting, compact type

3. 3面発光

Three-face lighting type

# ●外形寸法図 Outline drawing



(Top view)