

1.6(L)×0.8(W)×0.8(H)mm

● 外形寸法は1.6(L)×0.8(W)×0.8(H)mmの超小型タイプです。

● Dimensions: 1.6(L)×0.8(W)×0.8(H)mm, being ultra-small size

### ●絶対最大定格/Absolute Maximum Rating (Ta 25°C)

Series	Pd (mW)	I <sub>F</sub> (mA)	I <sub>FP</sub> (mA)	V <sub>R</sub> (V)	Top (°C)	Tst (°C)
CL-190 (UR,HRを除く) (Except UR and HR)	50	20	100*1	5	-25~+80	-30~+85
CL-190UR/HR	78	30				

\*1 I<sub>FP</sub>の条件はduty 1/10、パルス巾0.1msecです。

\*1 Condition for I<sub>FP</sub> is pulse of 1/10 duty and 0.1msec width.

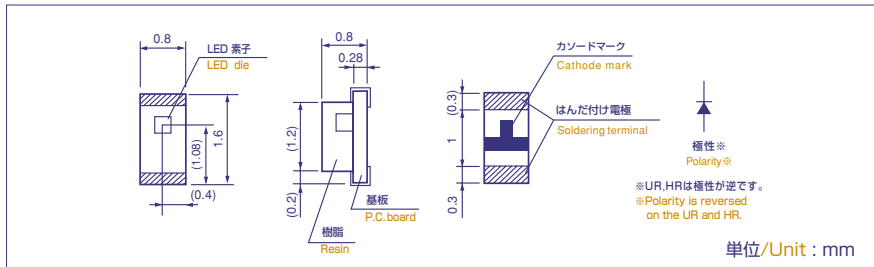
### ●電気的光学的特性/Electro-optical Characteristics (Ta 25°C)

Code for parts	Lighting color	V <sub>F</sub>			λ <sub>p</sub> typ (nm)	Δλ typ (nm)	I <sub>v</sub> * (mcd)		
		I <sub>F</sub> (mA)	typ (V)	max (V)			I <sub>F</sub> (mA)	min (mcd)	typ (mcd)
CL-190R	Red	20	2.2	2.6	700	100	20	0.5	1.3
CL-190D	Orange	20	2.2	2.6	605	40	20	2.4	7.1
CL-190Y	Yellow	20	2.1	2.6	589	40	20	2.6	6.4
CL-190YG	Yellow green	20	2.2	2.6	570	30	20	5	18
CL-190G	Green	20	2.2	2.6	567	26	20	2.5	10
CL-190FG	Fresh green	20	2.2	2.6	560	26	20	2.2	6.5
CL-190PG	Pure green	20	2.2	2.6	557	24	20	1	3
CL-190SR	Super brightness red	20	2	2.6	650	40	20	1.5	4.3
CL-190SD	Super brightness orange	20	2	2.6	630	40	20	2	6.2
CL-190UR	Ultra brightness red	20	1.8	2.6	660	20	20	3.5	13
CL-190HR	High brightness red	20	1.8	2.6	660	20	20	5	23

\*NIST規格に準拠

\*Per NIST standards

### ●外形寸法図/Outline drawing

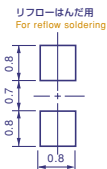


極性※  
Polarity※  
※UR,HRは極性が逆です。  
※Polarity is reversed on the UR and HR.

単位/Unit : mm

#### 推奨はんだ付けパターン

The following soldering patterns are recommended for reflow-soldering:



## ■ 諸特性 / Characteristics

