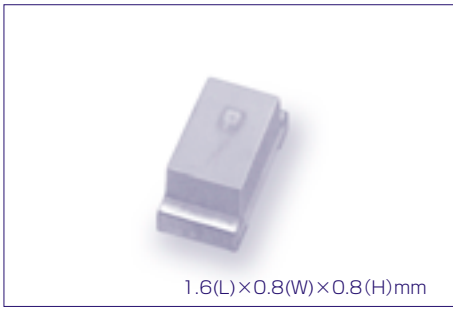


CL-190 Series

Mono-Color Upward-Lighting Type **CL-190 Series**



● 小型のチップLEDです。

● Compact chip LED

発光色のラインアップにつきましては、発注時にお問い合わせの上、ご確認ください。

Please contact us at the time of order for the lineup of luminescent colors.

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

Product code	Pd (mW)	I _F (mA)	I _{FP} (mA)	V _R (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_{FP}の条件はduty 1/10、パルス巾30msecです。

*1 Condition for I_{FP} is pulse of 1/10 duty and 30msec width.

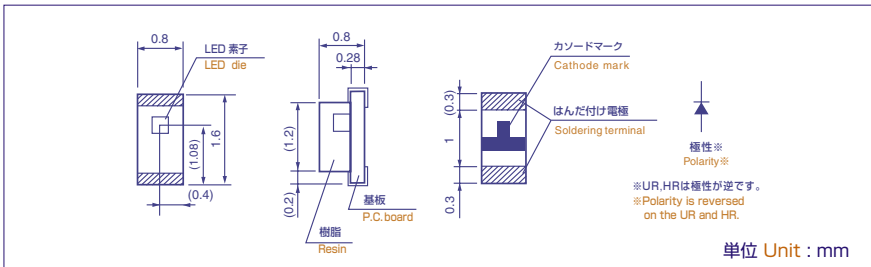
●電気的光学的特性 Electro-optical Characteristics (Ta 25°C)

Product code	Lighting color	V _F			λ _p typ (nm)	Δλ typ (nm)	I _V * (mcd)		
		I _F (mA)	typ (V)	max (V)			I _F (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

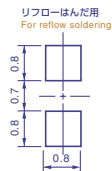
*Per NIST standards

●外形寸法図 Outline drawing



推奨はんだ付けパターン

The following soldering patterns are recommended for reflow-soldering:



■ 諸特性 Characteristics

