

# SMD Inductors(Coils)

## For Power Line(Wound, Magnetic Shielded)

Conformity to RoHS Directive

### CPL Series CPL2510

#### FEATURES

- It delivers low Rdc with high Idc.
- It is lead-free compatible.  
The product contains no lead whatsoever.  
It is able to withstand high temperature reflows (260°C during the peak) used in lead-free soldering.

#### APPLICATIONS

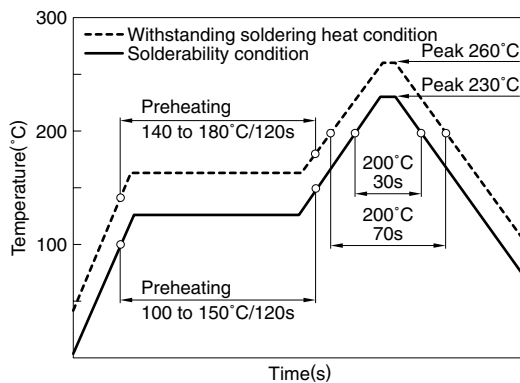
Portable audio visual devices (DSCs, DVCs, etc.)  
Mobile communication devices (cellular phones, etc.)  
Information devices (PCs, etc.)

#### SPECIFICATIONS

Operating temperature range	-40 to +105°C [Including self-temperature rise]
Storage temperature range	-40 to +105°C

#### RECOMMENDED SOLDERING CONDITIONS

##### REFLOW SOLDERING



#### PRODUCT IDENTIFICATION

CPL	2510	T	1R0	M
(1)	(2)	(3)	(4)	(5)

(1) Series name

(2) Dimensions

2510	2.5×1.5×1.0mm
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(3) Packaging style

T	Taping
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(4) Inductance

1R0	1μH
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(5) Inductance tolerance

M	±20%
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#### PACKAGING STYLE AND QUANTITIES

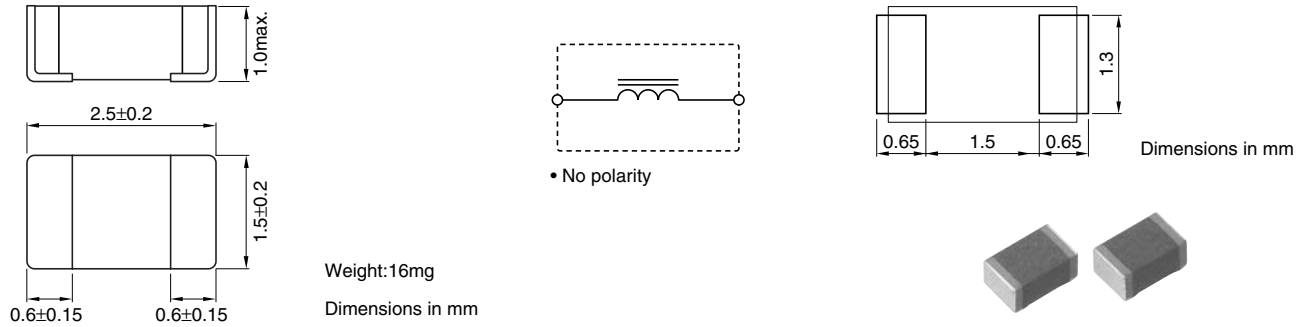
Packaging style	Quantity
Taping	2000 pieces/reel

- Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

- Please contact our Sales office when your application are considered the following:  
The device's failure or malfunction may directly endanger human life (e.g. application for automobile/aircraft/medical/nuclear power devices, etc.)

- All specifications are subject to change without notice.

## SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM/RECOMMENDED PC BOARD PATTERN



## ELECTRICAL CHARACTERISTICS

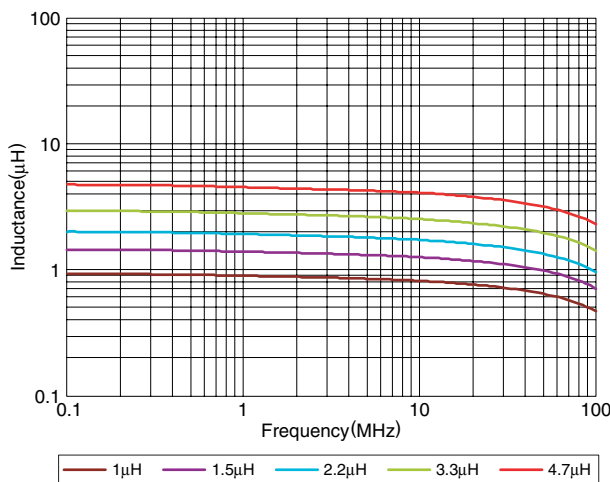
Inductance ( $\mu\text{H}$ )	Inductance tolerance (%)	DC resistance ( $\Omega$ ) $\pm 30\%$	Rated current*1 (mA)max.	Rated current*2 (mA)max.	Part No.
1	$\pm 20$	0.09	1200	1200	CPL2510T1R0M
1.5	$\pm 20$	0.12	1000	1000	CPL2510T1R5M
2.2	$\pm 20$	0.135	800	800	CPL2510T2R2M
3.3	$\pm 20$	0.27	700	700	CPL2510T3R3M
4.7	$\pm 20$	0.38	650	650	CPL2510T4R7M

\*1 Rated current based on inductance variation: Current when inductance decreases by 30% of the initial value due to direct current superimposed characteristics

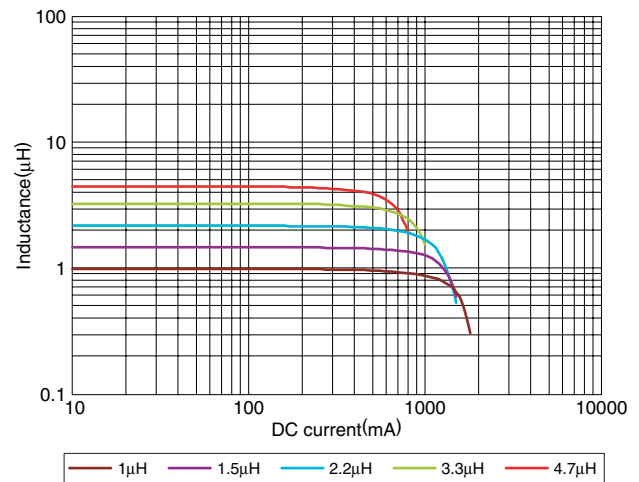
\*2 Rated current based on increasing product temperature: Current when temperature of the product reaches  $+40^\circ\text{C}$

## TYPICAL ELECTRICAL CHARACTERISTICS

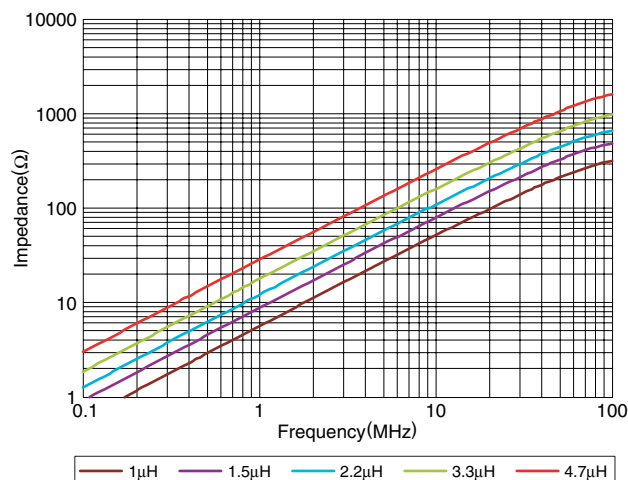
### INDUCTANCE vs. FREQUENCY CHARACTERISTICS



### INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS



### IMPEDANCE vs. FREQUENCY CHARACTERISTICS



### DC SUPERPOSITION vs. INDUCTANCE DECREASING RATE

