TDK

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

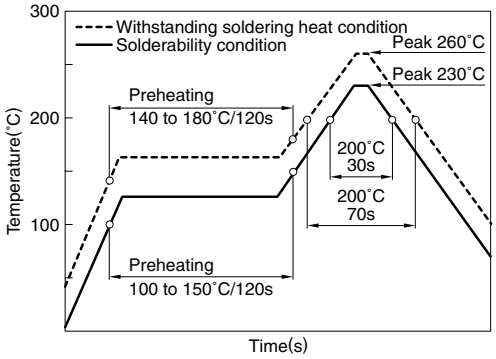
Portable audio visual devices (DSCs, DVCs, etc.)
Mobile communication devices (cellular phones, etc.)
Information devices (PCs, etc.)

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

(3) Packaging style

T	Taping

(4) Inductance

1R0	1µH

(5) Inductance tolerance

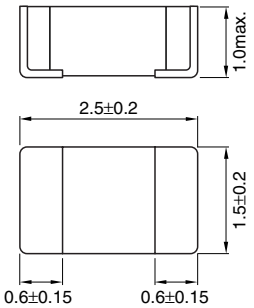
M	±20%

PACKAGING STYLE AND QUANTITIES

Packaging style	Quantity
Taping	2000 pieces/reel

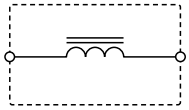
- Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.
- Please contact our Sales office when your application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

SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM/RECOMMENDED PC BOARD PATTERN

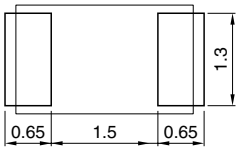


Weight:16mg

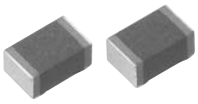
Dimensions in mm



• No polarity



Dimensions in mm



ELECTRICAL CHARACTERISTICS

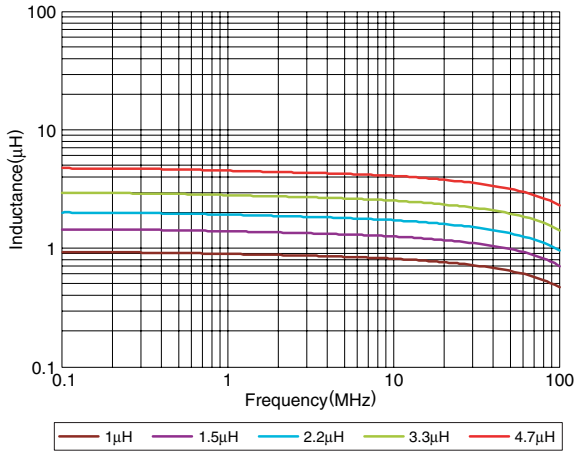
Inductance (μH)	Inductance tolerance (%)	DC resistance (Ω)±30%	Rated current*1 (mA)max.	Rated current*2 (mA)max.	Part No.
1	±20	0.09	1200	1200	CPL2510T1R0M
1.5	±20	0.12	1000	1000	CPL2510T1R5M
2.2	±20	0.135	800	800	CPL2510T2R2M
3.3	±20	0.27	700	700	CPL2510T3R3M
4.7	±20	0.38	650	650	CPL2510T4R7M

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

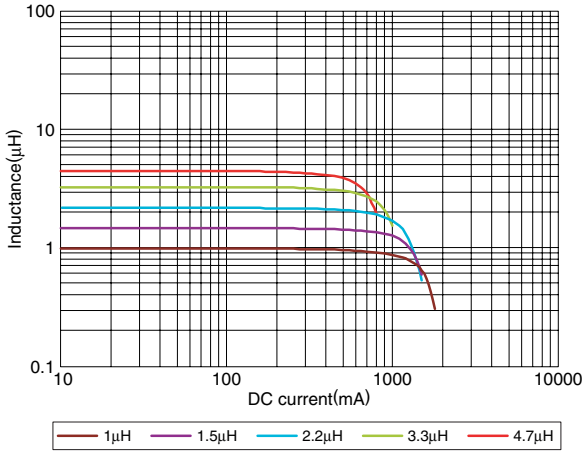
*2 Rated current based on increasing product temperature: Current when temperature of the product reaches +40°C

TYPICAL ELECTRICAL CHARACTERISTICS

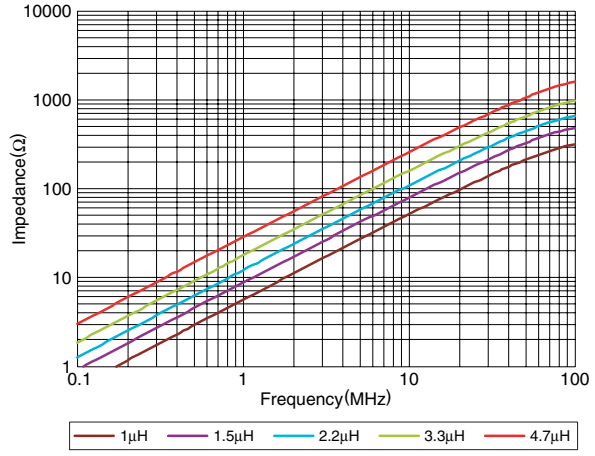
INDUCTANCE vs. FREQUENCY CHARACTERISTICS



INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS



IMPEDANCE vs. FREQUENCY CHARACTERISTICS



DC SUPERPOSITION vs. INDUCTANCE DECREASING RATE