

## Power Choke Coil

Series : **PCC-M1040L (MC)**



Small mounting size  
for multi-phase DC/DC converter circuits

### Features

- Small type (11.5×10.0×H4.0 mm)
- High power (21 A to 28 A)
- Low loss ( $R_{DC}$  :0.7 to 1.56 mΩ)
- Tighter DCR tolerance ( $\pm 5\%$  to  $\pm 10\%$ )
- Suitable for high frequency circuit (up to 1 MHz)
- Low buzz noise due to its gap-less structure
- RoHS compliant

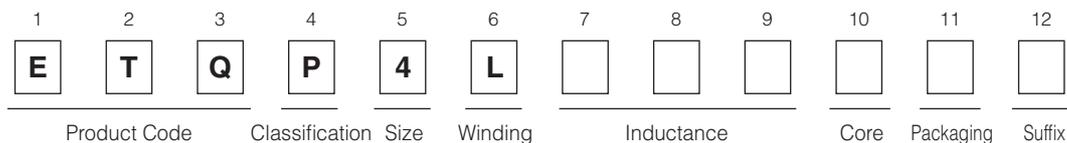
### Recommended Applications

- Servers, Routers, DC/DC converters for driving CPUs
- Notebook PC power supply modules

### Standard Packing Quantity (Minimum Quantity/Packing Unit)

- 2,000 pcs./box (2 reel) : ETQP4LR36WFC, ETQP4LR56WFC, ETQP4LR45XFC
- 1,000 pcs./box (2 reel) : ETQP4LR19WFC

### Explanation of Part Numbers



### Standard Parts

Part No.	Inductance (at 20 °C)*1					Rated current (A)*2	Rated current (ref) (A)*3	DC resistance (at 20 °C) (mΩ)
	L0 at 0A	L1		L2 (Reference)*4				
	(μH)	(μH)	Measurement current (A)	(μH)	Measurement current (A)			
ETQP4LR19WFC	(0.20)	0.19±20 %	21	(0.17)	30	28	38	0.70±10 %
ETQP4LR36WFC	(0.37)	0.36±20 %	17	(0.34)	24	24	33	1.10± 5 %
ETQP4LR56WFC	(0.60)	0.56±20 %	15	(0.53)	21	21	28	1.56± 5 %
ETQP4LR45XFC	0.45 <sup>+20%</sup> / <sub>-25%</sub>	—	—	(0.38)	25	25	33	1.10± 5 %

(\*1) Inductance is measured at 100 kHz.

(\*2) Rated current defines actual value of DC current, when temperature rise of coil becomes 40 K. (Method A)

(\*3) Rated current defines actual value of DC current, when temperature rise of coil becomes 40 K. (Method B)

(\*4) Reference only

(\*5) Method A (PANASONIC's standard measurement conditions),

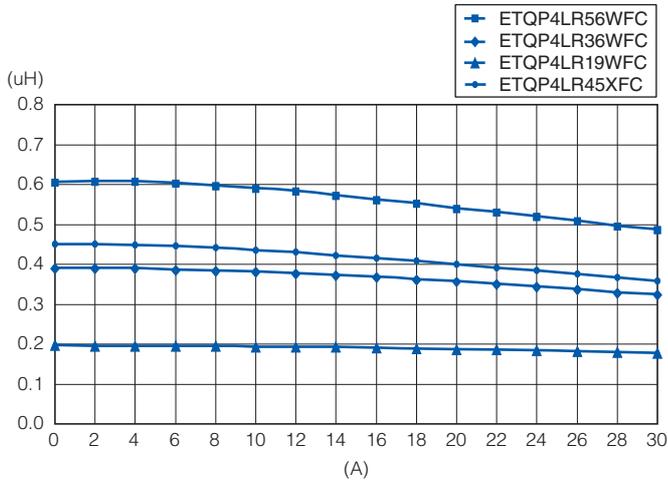
Method B (high heat dissipation measurement) is different from Method A by the measurement methods.

In normal application condition, the part's temperature depends on circuit design and heat dissipation condition.

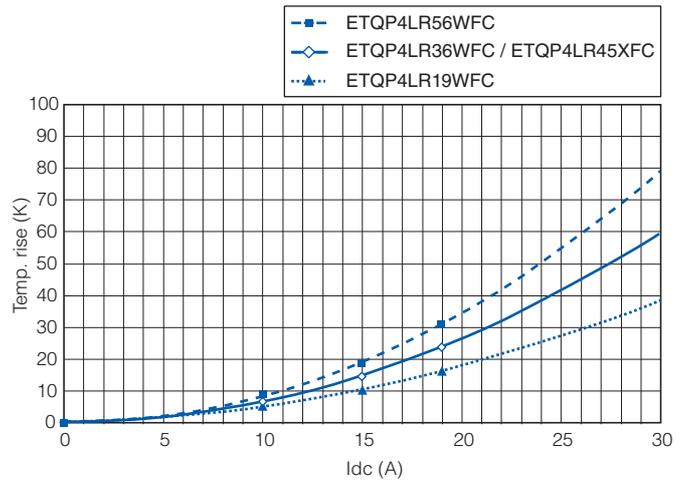
This condition shall be verified by the worst operational condition.

## Performance Characteristics (Reference)

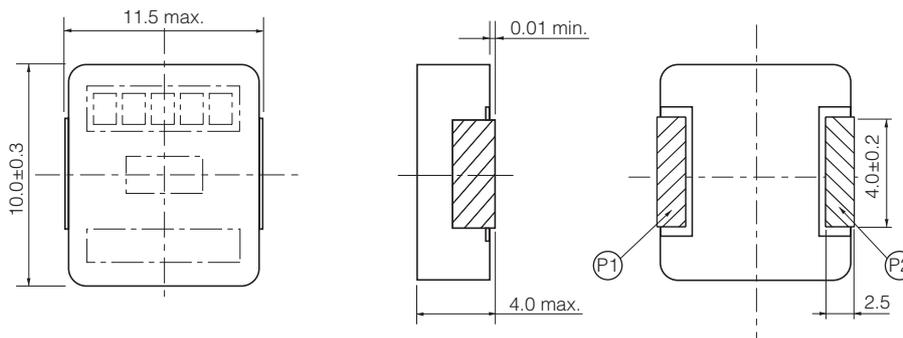
Inductance vs DC Current



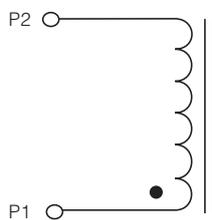
Case Temperature vs DC Current (Method A)



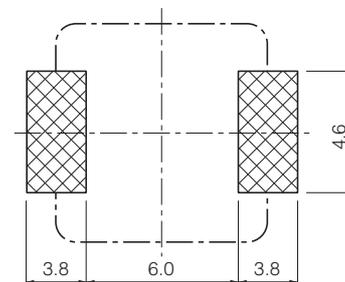
## Dimensions in mm (not to scale)



## Connection



## Recommended land patterns in mm (not to scale)



## As for Packaging Methods, Soldering Conditions and Safety Precautions (Power Choke Coils for Consumer use),

Please see Data Files