

## 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
- Shielded construction

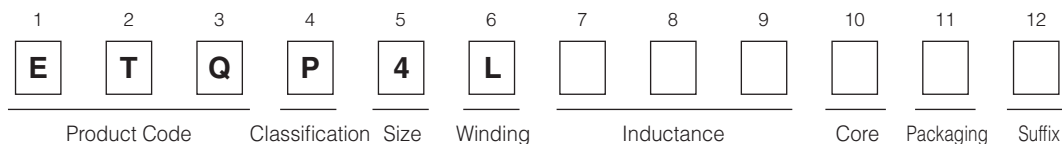
### Recommended Applications

- 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.

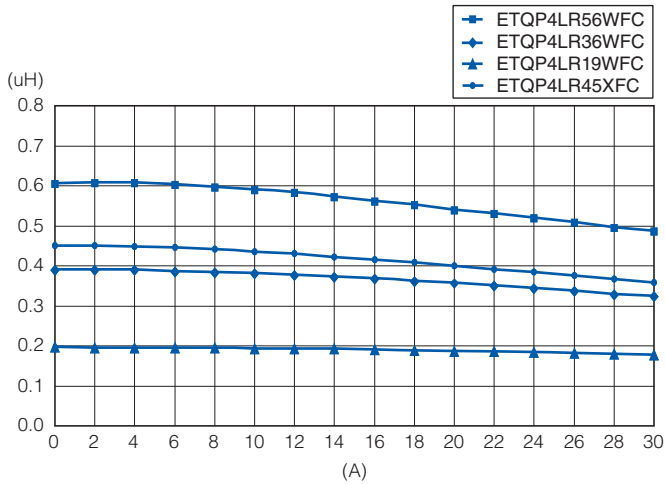
Design and specifications are each subject to change without notice. Ask factory for the current technical specifications before purchase and/or use.

Should a safety concern arise regarding this product, please be sure to contact us immediately.

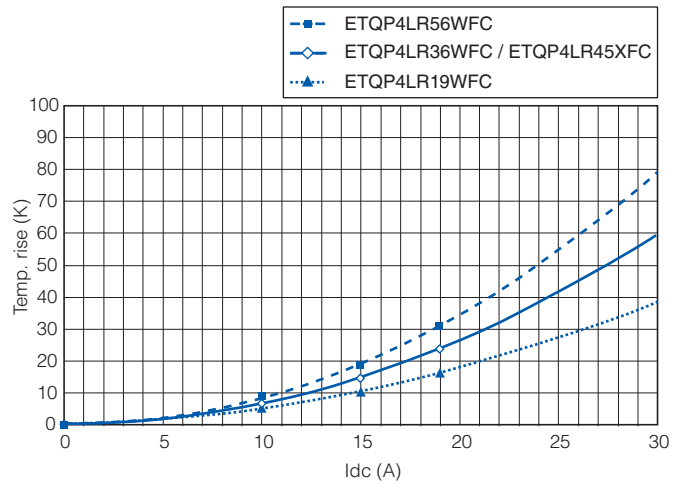
05 May. 2015

## Performance Characteristics (Reference)

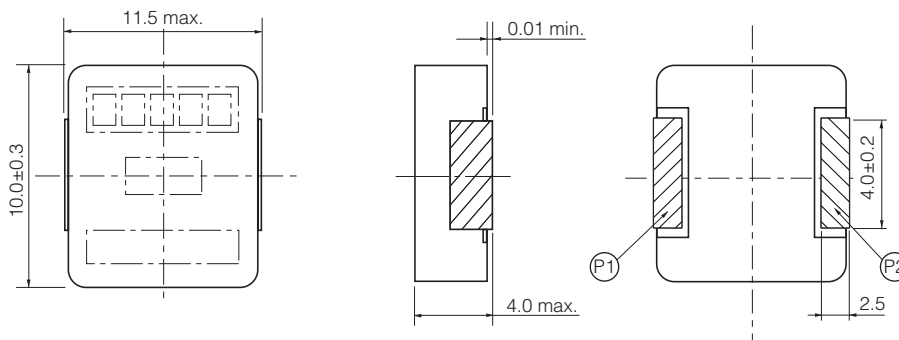
Inductance vs DC Current



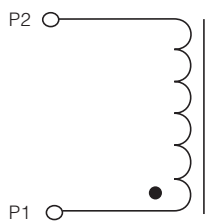
Case Temperature vs DC Current (Method A)



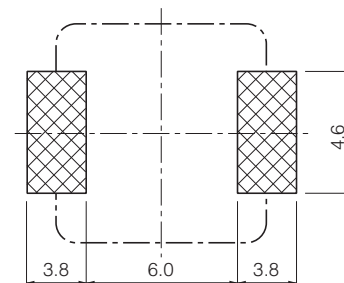
## Dimensions in mm (not to scale)



## 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

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