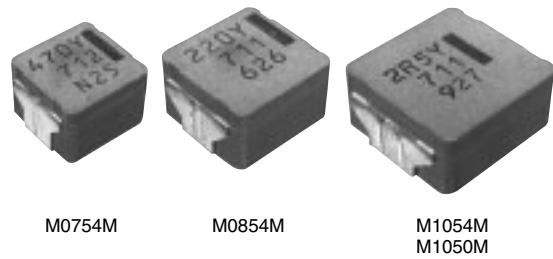


Power Choke Coil for Automotive application

Series: **PCC-M0754M (MC)**
PCC-M0854M (MC)
PCC-M1054M (MC)
PCC-M1050M (MC)

Realize high heat resistance and high reliability with metal composite core(MC)

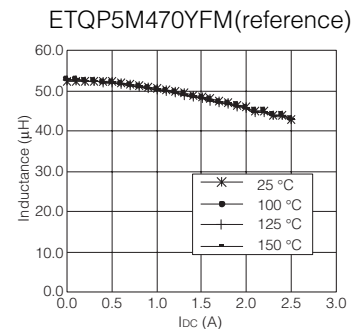
Industrial Property : patents 21 (Registered 2/Pending 19)



Features

- High heat resistance : Operation up to 150 °C
- High-reliability : High vibration tolerance in high temperature due to newly developed integral construction and severe condition of automotive application is cleared
- High bias current : Excellent inductance stability by using ferrous alloy magnetic material(Fig.1)
- Temp. stability : Excellent inductance stability in wide temp. range (Fig.1)
- Low buzz noise : New metal composite core technology
- High efficiency : Low R_{DC} of winding and low eddy-current loss of the core

● Fig.1 Inductance v.s. DC current, Temp.



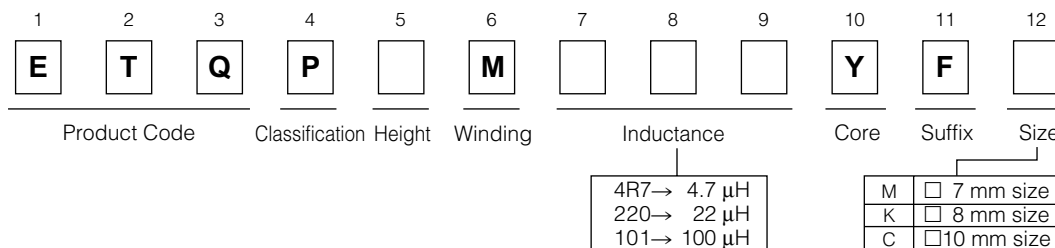
Recommended Applications

- Noise filter for various drive circuitry requiring high temp. operation and peak current handling capability
- DC-DC converters

Standard Packing Quantity

- 500 pcs./Reel

Explanation of Part Numbers



Temperature rating

Operating temperature range		Tc : -40 °C to +150 °C(Including self-temperature rise)
Storage condition	After PCB mounting	
	Before PCB mounting	Ta : -5 °C to +35 °C 85%RH max.

Standard Parts

Series	Part No.	Inductance *1		Rated current ΔT=15K*2 (A)	Reference current ΔT=40K*3 (A)	DC resistance	
		L0 (µH)	Tolerance (%)			Typ. (mΩ)	Tolerance (%)
PCC-M0754M	ETQP5M4R7YFM	4.7	±20	2.8	4.5	20.4	±10
	ETQP5M470YFM	48	±20	1.0	1.6	156	±10
PCC-M0854M	ETQP5M2R5YFK	2.45	±20	4.5	7.5	7.6	±10
	ETQP5M220YFK	22	±20	1.6	2.6	63	±10
	ETQP5M470YFK	48	±20	1.1	1.8	125	±10
PCC-M1054M	ETQP5M2R5YFC	2.5	±20	6.0	10	5.3	±10
	ETQP5M3R3YFC	3.3	±20	5.1	8.6	7.1	±10
	ETQP5M4R7YFC	4.7	±20	4.4	7.2	10.2	±10
PCC-M1050M	ETQP5M101YGC	97	±20	1.0	1.6	208	±10

(*1) Inductance is measured at 100 kHz.

(*2) Rated current defines actual value of DC current which is case temperature rise becomes 15 K.

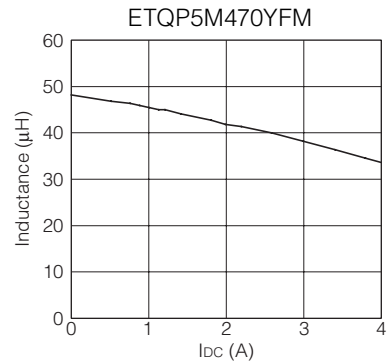
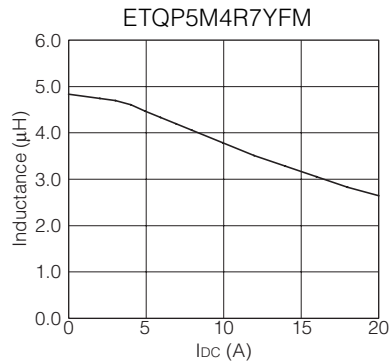
(*3) Reference current defines actual value of DC current which is case temperature rise becomes 40 K.

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.

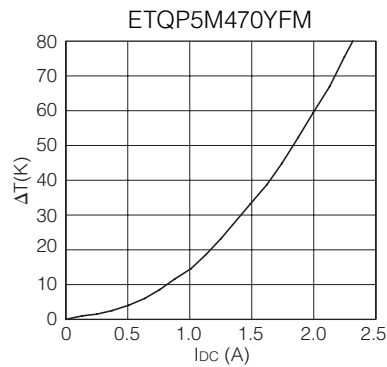
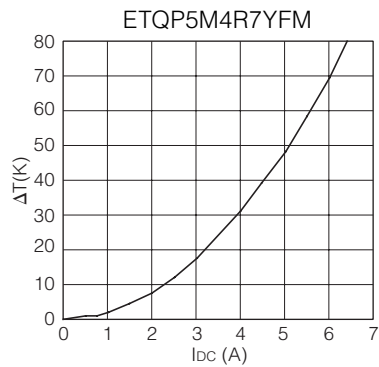
1. PCC-M0754M Series(ETQP5M□□□YFM)

■ Performance Characteristics (Reference)

● Inductance vs DC Current



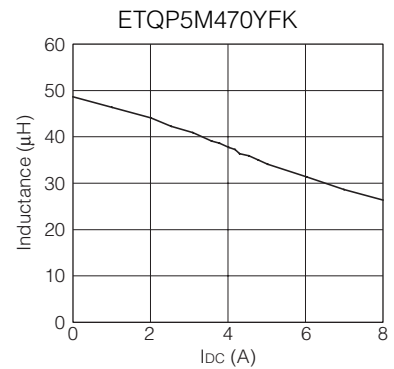
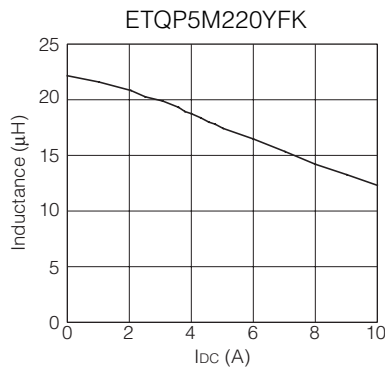
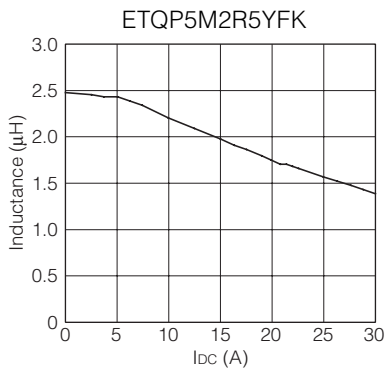
● Case Temperature vs DC Current*



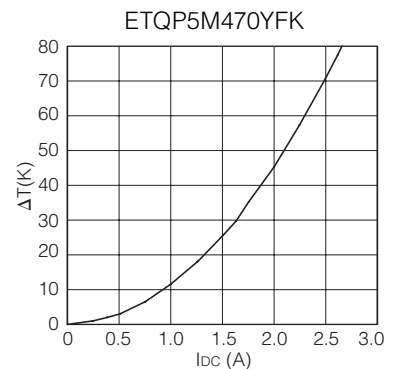
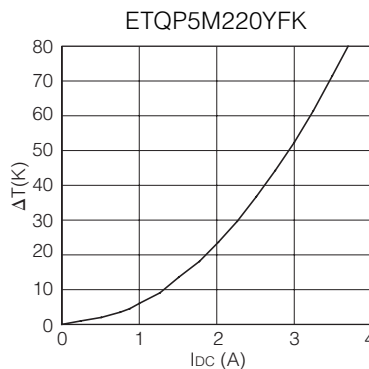
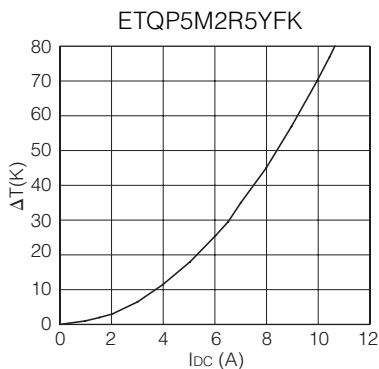
2. PCC-M0854M Series(ETQP5M□□□YFK)

■ Performance Characteristics (Reference)

● Inductance vs DC Current



● Case Temperature vs DC Current*

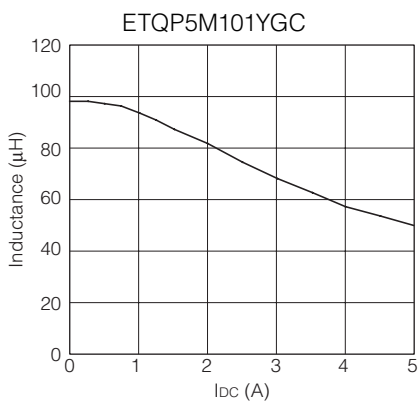
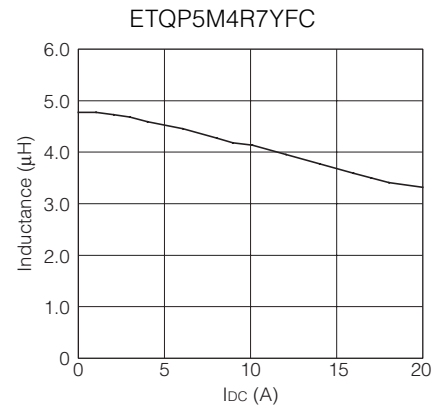
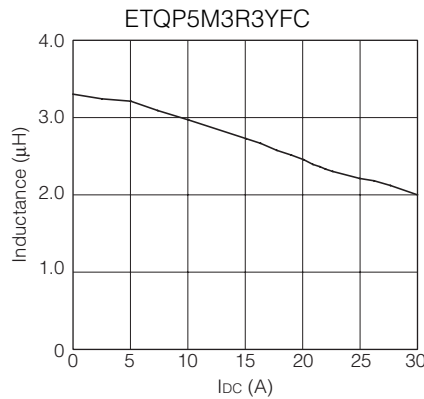
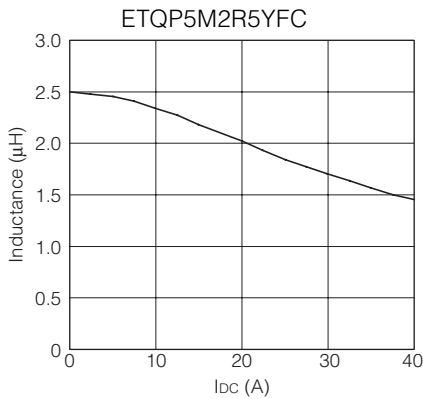


* Above temperature rise is measured at Panasonic standard PCB condition. And actual temperature rise at application have different value due to PCB design and heat dissipation etc. So please confirm it at customer's application.

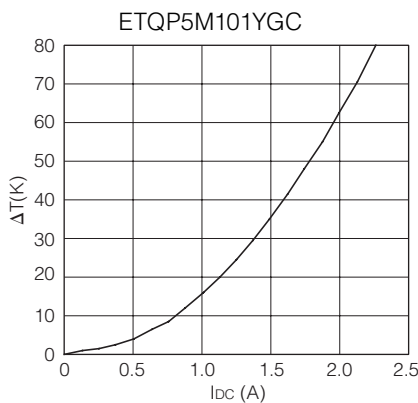
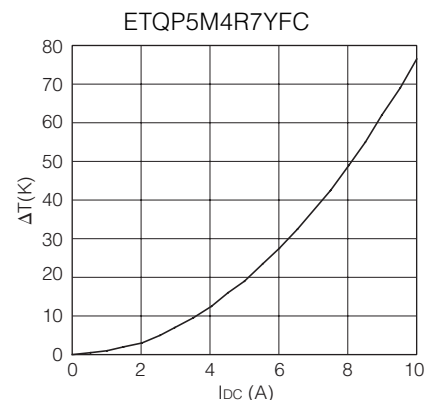
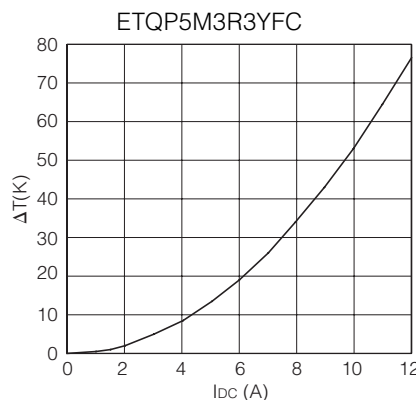
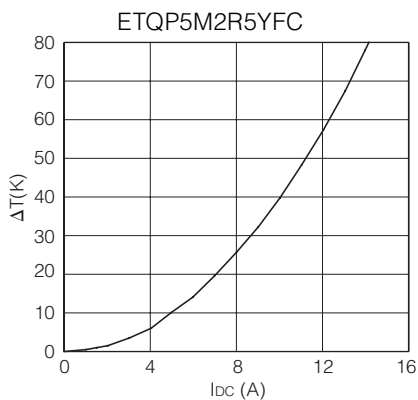
3. PCC-M1054M/PCC-M1050M Series(ETQP5M□□□YFC/ETQP5M□□□YGC)

■ Performance Characteristics (Reference)

● Inductance vs DC Current



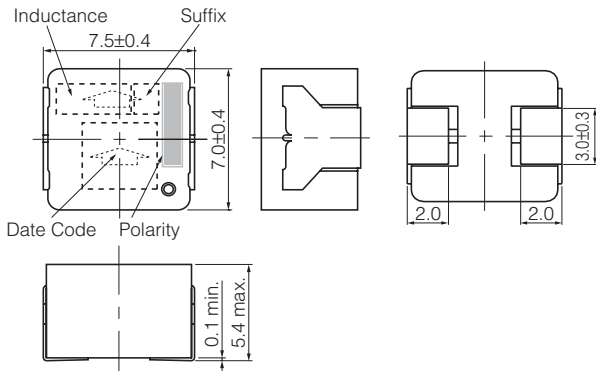
● Case Temperature vs DC Current*



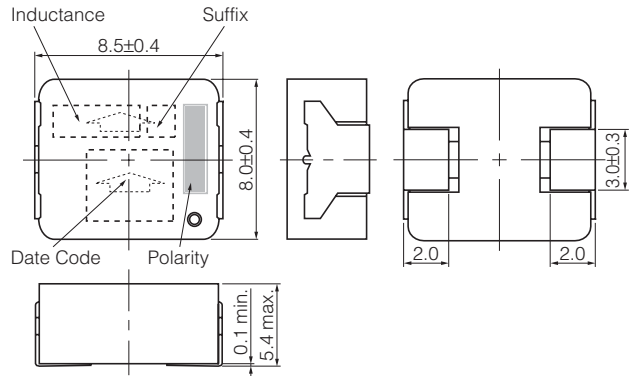
* Above temperature rise is measured at Panasonic standard PCB condition. And actual temperature rise at application have different value due to PCB design and heat dissipation etc. So please confirm it at customer's application.

■ Dimensions in mm (not to scale)
Dimensional tolerance unless noted : ± 0.5

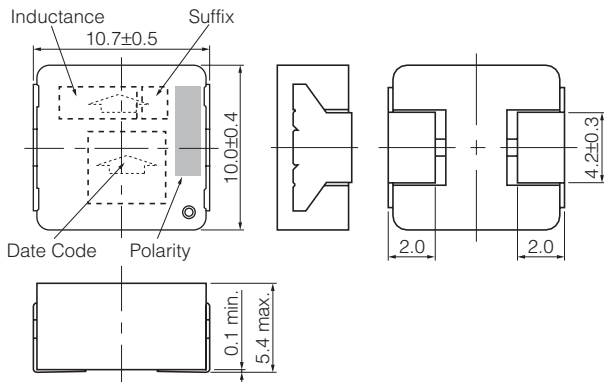
PCC-M0754M Series
(ETQP5M□□□YFM)



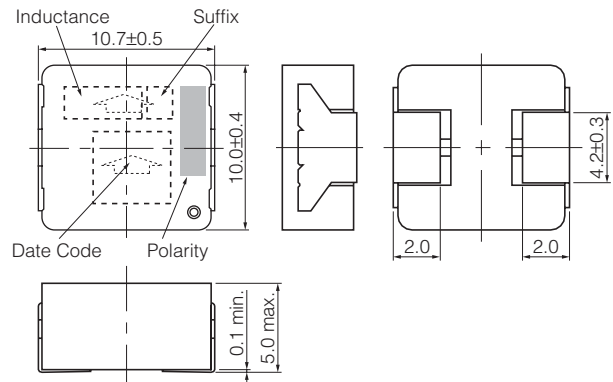
PCC-M0854M Series
(ETQP5M□□□YFK)



PCC-M1054M Series
(ETQP5M□□□YFC)

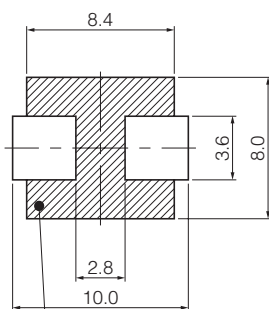


PCC-M1050M Series
(ETQP5M□□□YGC)



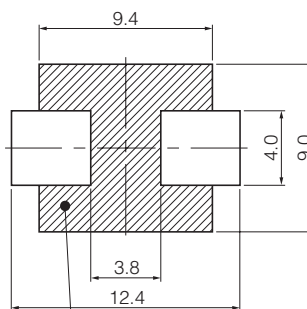
■ Recommended Land Pattern in mm (not to scale)
Dimensional tolerance unless noted : ± 0.5

PCC-M0754M Series
(ETQP5M□□□YFM)



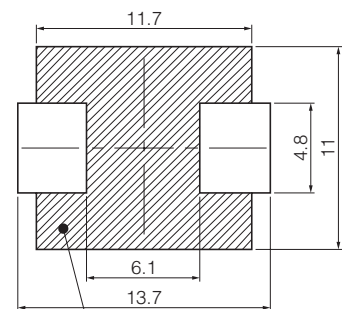
Don't wire on the pattern on shaded portion the PCB.

PCC-M0854M Series
(ETQP5M□□□YFK)



The same as the left.

PCC-M1054M Series
PCC-M1050M Series
(ETQP5M□□□YFC/YGC)



The same as the left.