Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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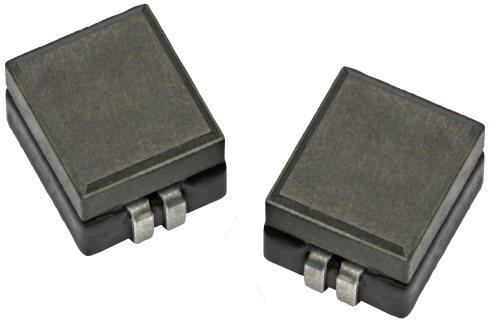
Coiltronics FPT705 Family

Dual conductor, high current power inductors



Description

- Dual conductor, two-turn construction
- Magnetically shielded
- 8.3 x 7.5mm footprint surface mount package in a 5.35mm height
- Ferrite core material
- Halogen free, lead free, RoHS compliant

Applications

- Compatible with Picor® Cool-Power® ZVS Buck and Buck-Boost Regulator Families (Picor part number series PI33xx and PI34xx)

Environmental Data

- Storage temperature range (component): -40°C to +125°C
- Operating temperature range: -40°C to +125°C (ambient plus self-temperature rise)
- Solder reflow temperature: J-STD-020D compliant

Pb HALOGEN HF FREE RoHS

Picor® and Cool-Power® are trademarks of Vicor Corporation.

Powering Business Worldwide

The Coiltronics brand of magnetics (formerly of the Bussmann Division of Cooper Industries) is now part of Eaton's Electrical Group, Electronics Division.

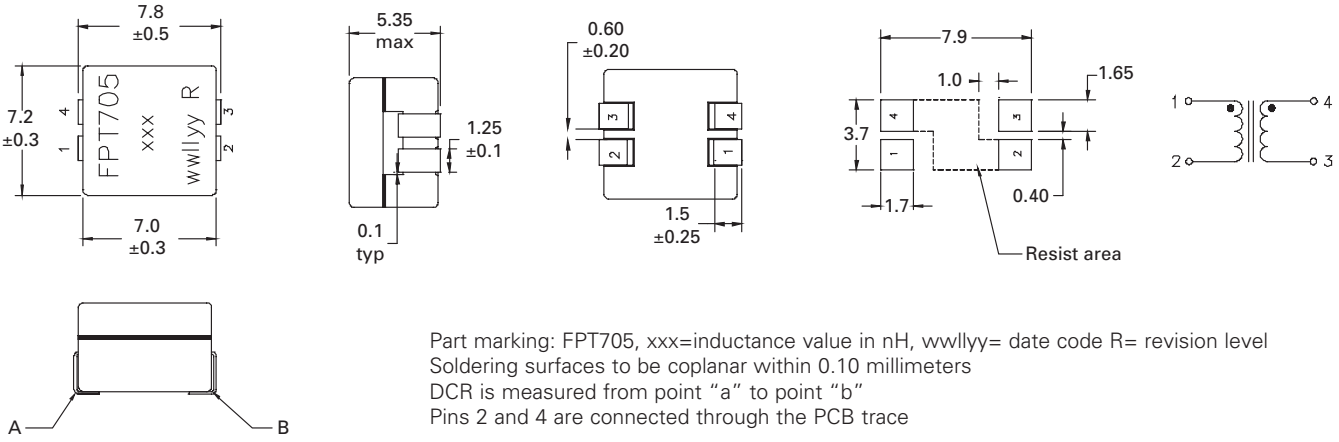
Coiltronics is now part of Eaton
Same great products plus even more.

Product Specifications

Part Number[5]	OCL[1] (nH) ±10%	I_{rms}[2] (amps)	I_{sat}[3] (amps)	DCR (mΩ) @ 20°C ±0.15 mΩ
FPT705-170-R	170 (±12%)	13	31	0.65
FPT705-190-R	190	13	28	0.65
FPT705-200-R	200	13	25	0.65
FPT705-230-R	230	13	23	0.65
FPT705-270-R	270	13	19	0.65
FPT705-300-R	300	13	17	0.65

1. Open Circuit Inductance (OCL) Test Parameters: 1.0MHz, 0.1Vrms, 0.0Adc, 25°C
2. I_{rms}: DC current for an approximate temperature rise of 40°C without core loss. Derating is necessary for AC currents. PCB layout, trace thickness and width, air-flow, and proximity of other heat generating components will affect the temperature rise. It is recommended that the temperature of the part not exceed 125°C under worst case operating conditions verified in the end application.
3. I_{sat} Peak current for approximately 2% rolloff @ +25°C
4. DCR tested from pins (1-2) and pins (4-3)
5. Part Number Definition: FPT705-xxx-R
   FPT705 = Product code and size
   xxx= Inductance value in nH,
   -R suffix = RoHS compliant

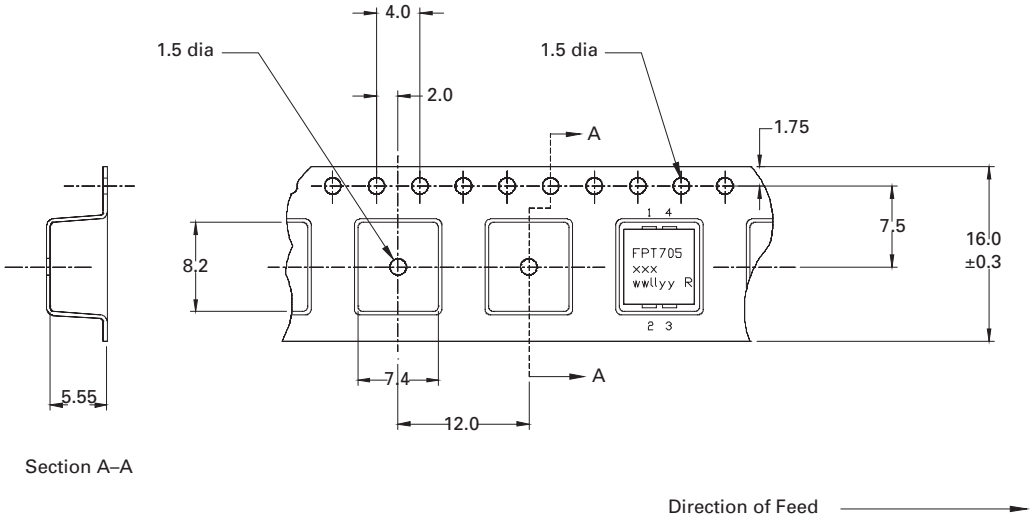
Dimensions (mm)



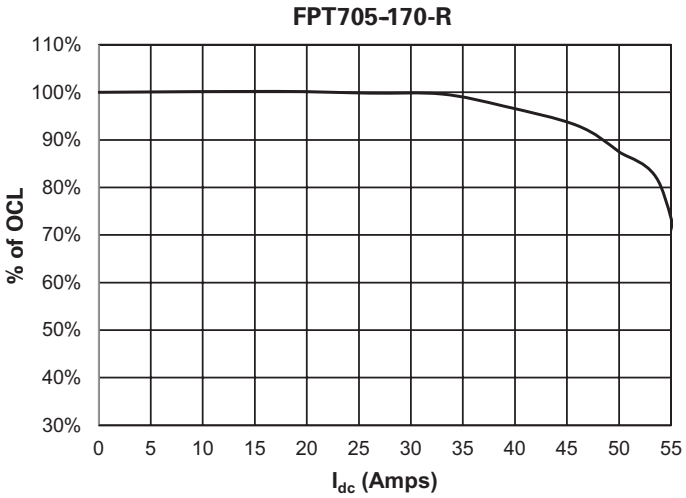
Part marking: FPT705, xxx=inductance value in nH, wwllyy= date code R= revision level
Soldering surfaces to be coplanar within 0.10 millimeters
DCR is measured from point "a" to point "b"
Pins 2 and 4 are connected through the PCB trace

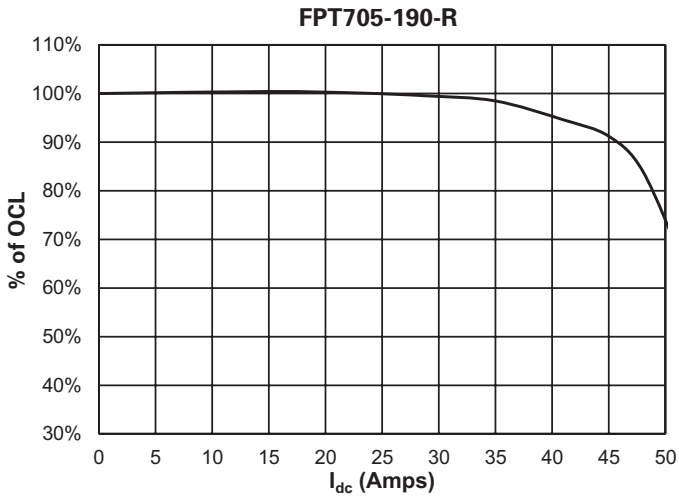
Packaging information (mm)

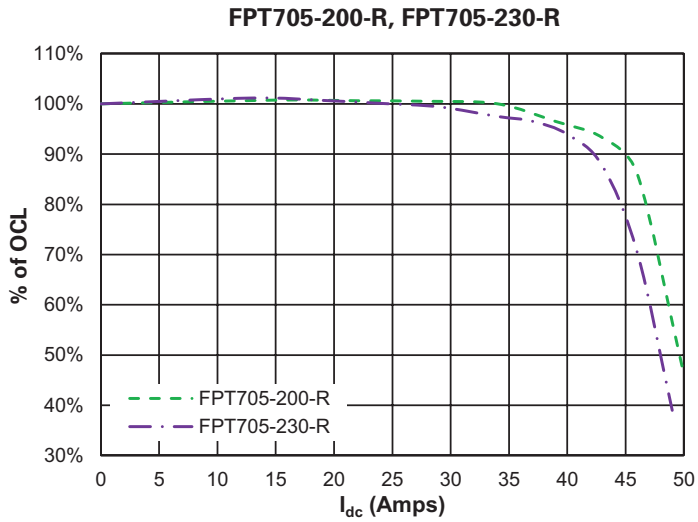
Supplied in tape and reel packaging, 1,000 parts per 13" diameter reel

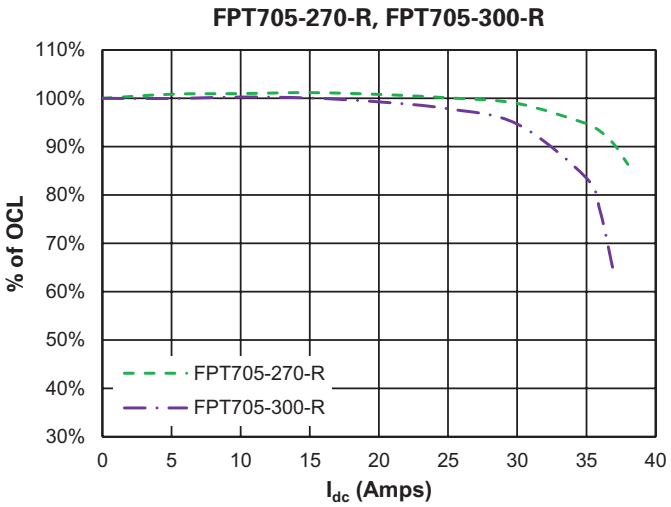


Inductance characteristics









Solder reflow profile

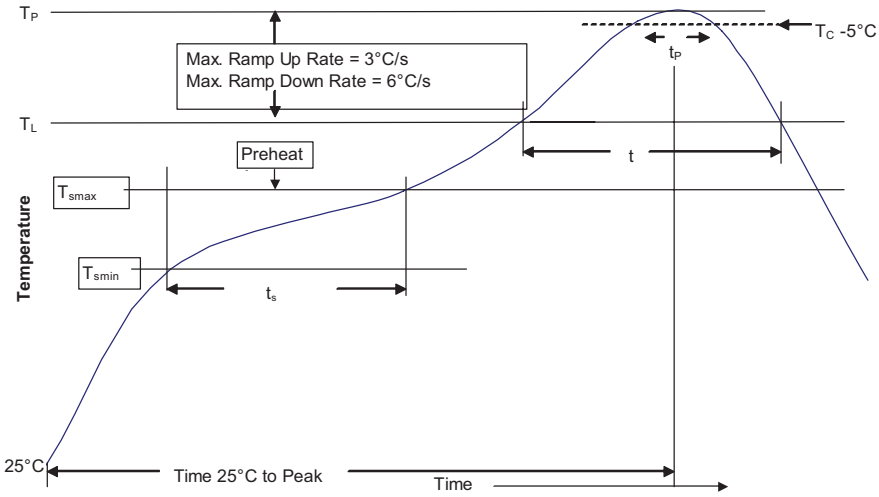


Table 1 - Standard SnPb Solder (T_C)

Package Thickness	Volume mm³ <350	Volume mm³ ≥350
<2.5mm)	235°C	220°C
≥2.5mm	220°C	220°C

Table 2 - Lead (Pb) Free Solder (T_C)

Package Thickness	Volume mm³ <350	Volume mm³ 350 - 2000	Volume mm³ >2000
<1.6mm	260°C	260°C	260°C
1.6 – 2.5mm	260°C	250°C	245°C
>2.5mm	250°C	245°C	245°C

Reference JDEC J-STD-020D

Profile Feature		Standard SnPb Solder	Lead (Pb) Free Solder
Preheat and Soak	• Temperature min. (T_{smin})	100°C	150°C
	• Temperature max. (T_{smax})	150°C	200°C
	• Time (T_{smin} to T_{smax}) (t_s)	60-120 Seconds	60-120 Seconds
Average ramp up rate T_{smax} to T_p		3°C/ Second Max.	3°C/ Second Max.
Liquidous temperature (T_L) Time at liquidous (t_L)		183°C 60-150 Seconds	217°C 60-150 Seconds
Peak package body temperature (T_P)*		Table 1	Table 2
Time (t_p)** within 5 °C of the specified classification temperature (T_C)		20 Seconds**	30 Seconds**
Average ramp-down rate (T_p to T_{smax})		6°C/ Second Max.	6°C/ Second Max.
Time 25°C to Peak Temperature		6 Minutes Max.	8 Minutes Max.

* Tolerance for peak profile temperature (T_p) is defined as a supplier minimum and a user maximum.
** Tolerance for time at peak profile temperature (t_p) is defined as a supplier minimum and a user maximum.

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