

PRODUCT SPECIFICATION

SPEC. No.

T-0653-113



1. Scope

This specification applies High Current Power Inductors PHC0412-Series-TY to be delivered to user.

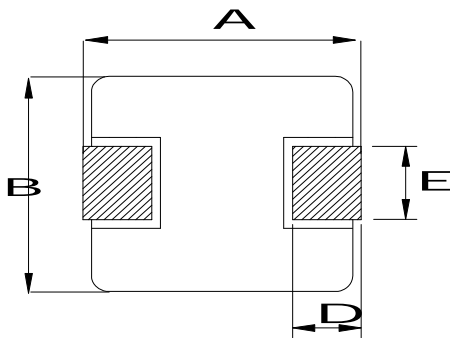
2. Product Identification

PHC 0412 - 1R5 □ - TY

(1) (2) (3) (4) (5)

- (1) Product name
- (2) Shapes and dimensions
- (3) Inductance
1R5: 1.5 μ H
- (4) Tolerance(%)
M: \pm 20%
- (5) Customer Design

3. Shapes and Dimensions



A : 4.4 \pm 0.35 mm
 B : 4.2 \pm 0.25 mm
 C : 1.0 \pm 0.2 mm
 D : 0.8 \pm 0.3 mm
 E : 2.0 \pm 0.3 mm

Drawn by	Checked by	Approved by
<i>Ch</i> Aug. 5. 2020	<i>Zheny</i> Aug. 5. 2020	<i>Dragon</i> 2020. 8. 5

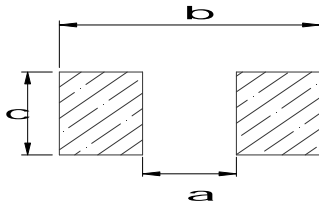
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4. Recommend Land Pattern



a typ	2.2 mm
b typ	5.2 mm
c typ	2.5 mm

5. Electrical Characteristics

5-1 Electrical Spec.

Customer Part Number	EMTEK Part No.	Inductance μ H (100KHz/1V)	Tol.	Rdc (m Ω)	Heating Rating Current Irms(A)	Saturation Current Isat(A)
				Max.	Typ.	Typ.
	PHC0412-R15□-TY	0.15	M	9.0	7.5	15.0
	PHC0412-R22□-TY	0.22	M	11.0	7.0	10.0
	PHC0412-R33□-TY	0.33	M	19.0	6.50	8.4
	PHC0412-R47□-TY	0.47	M	21.0	6.00	6.8
	PHC0412-R68□-TY	0.68	M	36.0	4.50	6.0
	PHC0412-1R0□-TY	1.0	M	47.0	4.20	5.2
	PHC0412-1R5□-TY	1.5	M	75.0	3.25	4.0
	PHC0412-2R2□-TY	2.2	M	83.5	2.75	3.0
	PHC0412-4R7□-TY	4.7	M	195.0	1.80	2.2

- All test data is referenced to 25°C ambient.
- Irms(A) : DC current (A) that will cause an approximate Δ T of 40°C
- Isat(A) : DC current (A) that will cause Lo to drop approximately 30%
- Operating Temperature Range -55°C to + 125°C
- The part temperature (ambient + temp rise) should not exceed 125°C under worse case operating conditions. Circuit design , component placement, PWB trace size and thickness, airflow and other cooling provision all affect the part temperature. Part temperature should be verified in the end application.