

# PRODUCT SPECIFICATION

SPEC. No.

T-0653-112



## 1. Scope

This specification applies High Current Power Inductors PHC0518-Series to be delivered to user.

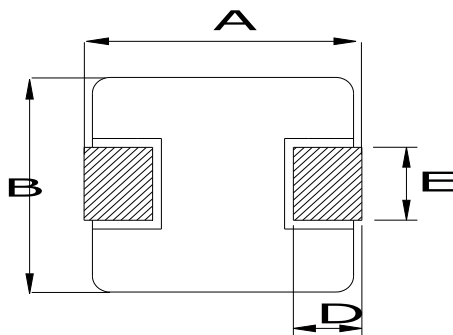
## 2. Product Identification

PHC 0518 - 6R8 □ - T




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

- (1) Product name
- (2) Shapes and dimensions
- (3) Inductance  
6R8: 6.8 $\mu$ H
- (4) Tolerance(%)  
M:  $\pm 20\%$
- (5) Taping Type  
T: Taping, None: Bulk

## 3. Shapes and Dimensions



A : 5.4 $\pm$ 0.35 mm  
 B : 5.2 $\pm$ 0.2 mm  
 C : 1.6 $\pm$ 0.2 mm  
 D : 1.2 $\pm$ 0.2 mm  
 E : 2.2 $\pm$ 0.3 mm

Drawn by	Checked by	Approved by
 May. 26, 2020	 May. 26, 2020	 May. 26, 2020

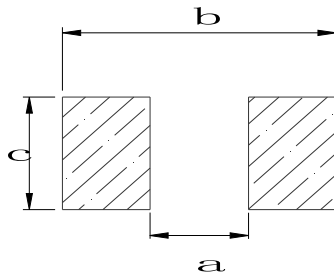
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## 4. Land Patterns



a:2.2 typ. mm

b:6 typ. mm

c:2.5 typ. mm

## 5. Electrical Characteristics

### 5-1 Electrical Spec.

Customer Part Number	EMTEK Part No.	Inductance $\mu$ H (100KHz/1V)	Tol.	Rdc (m $\Omega$ )	Saturation Current Isat(A)	Heating Rating Current Irms(A)
				Max.	Typ.	Typ.
	PHC0518-R47□-T	0.47	M	9.0	15.5	10.5
	PHC0518-R56□-T	0.56	M	10.0	15.0	9.5
	PHC0518-R68□-T	0.68	M	13.8	11.2	8.9
	PHC0518-1R0□-T	1.00	M	17.0	9.0	8.0
	PHC0518-1R5□-T	1.50	M	26.0	8.0	7.5
	PHC0518-2R2□-T	2.2	M	35.0	6.5	5.0
	PHC0518-3R3□-T	3.3	M	58.0	5.0	4.5
	PHC0518-4R7□-T	4.7	M	85.0	4.0	3.5
	PHC0518-6R8□-T	6.8	M	120.0	3.4	2.8
	PHC0518-100□-T	10.0	M	155.0	3.0	2.5

Inductance Tolerance:M=±20%

1.All test data is referenced to 25°C ambient.

2. Idc : DC current (A) that will cause an approximate  $\Delta$ T of 40°C

3. Isat : DC current (A) that will cause Lo to drop approximately 30%

4.Operating Temperature Range -40°C to + 125°C

5. 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.