

Co-fired Alloy Power Inductor-AHTF -H Series (Single-phase Inductor)



Operating Temp : -55°C ~+165°C (Including self-heating)

FEATURES

- ◆ Ultra-thin
- ◆ High operating current and low loss
- ◆ High reliability

APPLICATIONS

- ◆ Intelligent Drive

PRODUCT IDENTIFICATION

1	2	3	4	5	6	7	8
A	HTF	130517	H	R14	L	T	□□□

1	Feature Code
A	For Car Use

2	Feature Code
HTF	Co-fired Alloy Power Inductor

3	External Dimensions(L×W) [mm]
070415	7.0×4.5×1.5
100424	10.0×4.0×2.4
130517	12.8×4.8×1.7
120840	12.8×8.2×4.0

4	Feature Type
H	Single-phase Inductor

5	Nominal Inductance
Example	Nominal Value
R10	0.10uH
R14	0.14uH
R22	0.22uH
50N	0.05uH

6	Inductance Tolerance
L	±15%
M	±20%

7	Packing
T	Tape & Reel

8	Special Process code
□□□	Special Process code
* Standard product is blank	

SHAPE AND DIMENSIONS

Recommended Land Pattern (Typ.)



Unit: mm

SHAPE AND DIMENSIONS

Series	A	B	C	D	E	a	b	c
AHTF070415H50NLT	7.0±0.2	4.5±0.2	1.3±0.2	2.5±0.3	1.5±0.3	2.9 Typ.	3.6 Typ.	7.4 Typ.
AHTF100424HR10LT	10.0±0.2	4.0±0.2	2.4 Max.	3.5±0.3	1.5±0.3	3.9 Typ.	6.6 Typ.	10.4 Typ.
AHTF130517HR14LT	12.8±0.2	4.8 Max.	1.7 Max.	2.2±0.3	1.5±0.3	2.6 Typ.	9.4 Typ.	13.2 Typ.
AHTF120840HR22MT	12.8±0.4	8.2 Max.	4.0 Max.	3.5±0.5	2.5±0.5	5.0 Typ.	6.0 Typ.	14.5 Typ.

SPECIFICATIONS

Part Number	Inductance	DC Resistance		Saturation Current		Heat Rating Current	
Units	nH	mΩ		A		A	
Symbol	L@1MHz	DCR		Isat ^{※3}		Irms ^{※4}	
		Max.	Typ.	Max.	Typ.	Max.	Typ.
AHTF070415H50NLT	50±15%	0.27	0.25	40	45	40	45
AHTF100424HR10LT	100±15%	0.35	0.30	51	57	38	45
AHTF130517HR14LT	140±15%	0.45	0.35	36	40	36	42
AHTF120840HR22MT	220±20%	0.60	0.39	63	70	38	45

※1 :All specifications are for room temperature (25 °C) unless otherwise noted.

※2 :Rated current: Isat (Max.) or Irms (Max.), whichever is smaller.

※3 :Isat: Max.Value, DC current at which the inductance drops less than 30% from its value without current;

Typ.Value, DC current at which the inductance drops 30% from its value without current.

※4 :Irms: DC current that causes the temperature rise (ΔT) from 20°C ambient.

For Max.Value, ΔT<40°C;

For Typ.Value, ΔT is approximate 40°C.

TYPICAL ELECTRICAL CHARACTERISTICS