

FEATURES

- Fe base metal material core provides large saturation current.
- Magnetic-resin shielded construction reduces buzz noise to ultra-low levels.
- Closed magnetic circuit design reduces leakage flux and EMI.
- Metallization on core results in secure and reliable mounting.
- Operating temperature: -40°C ~ +125°C.



APPLICATIONS

- Smart phone, Set top box, VR, AR.
- Notebooks, Desktop computers, Servers.
- Portable gaming devices, Personal navigation systems, Personal multimedia devices.

PRODUCT IDENTIFICATION

AM	PI	3015	S	1R0	M	T
(1)	(2)	(3)	(4)	(5)	(6)	

- (1) Series name
- (2) Product dimensions
- (3) Feature Type (S:Standard)
- (4) Inductance Value (1R0:1.0uH, 100:10uH, 101:100uH)
- (5) Inductance Tolerance (K:10%, M:20%, N:30%)
- (6) Package (T:Tape&Reel)

SHAPE AND DIMENSIONS

Fig.1

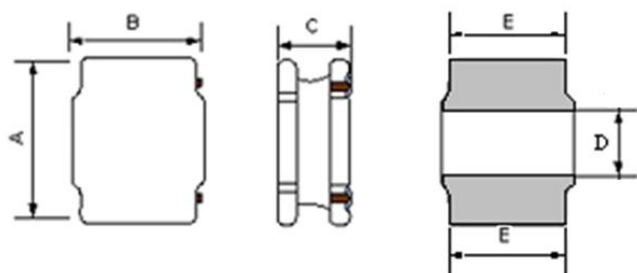


Fig.2

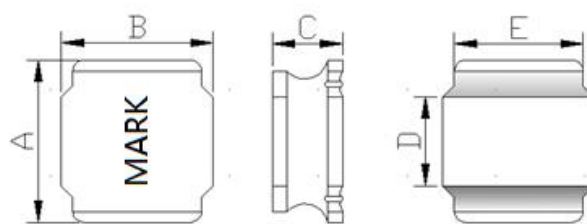
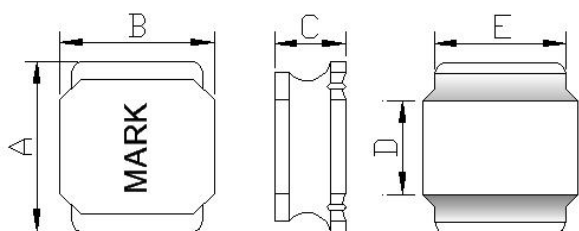
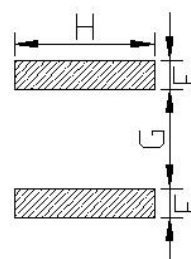


Fig.3



Recommended Land Pattern



Series	Shape	A	B	C Max.	D	E	F	G	H
AMPI201610	Fig.1	2.0 ± 0.2	1.7 ± 0.2	1.05	0.80Ref	1.50Ref	0.70Ref	0.70Ref	1.70Ref
AMPI252010	Fig.1	2.5 ± 0.2	2.2 ± 0.2	1.05	0.90Ref	1.65Ref	0.80Ref	0.85Ref	2.00Ref
AMPI252012	Fig.1	2.5 ± 0.2	2.2 ± 0.2	1.25	0.90Ref	1.65Ref	0.80Ref	0.85Ref	2.00Ref
AMPI3012	Fig.2	3.0 ± 0.2	3.0 ± 0.2	1.20	1.4Ref	2.5Ref	0.8Ref	1.5Ref	2.7Ref
AMPI3015	Fig.2	3.0 ± 0.2	3.0 ± 0.2	1.55	1.4Ref	2.5Ref	0.8Ref	1.5Ref	2.7Ref
AMPI4012	Fig.3	4.0 ± 0.2	4.0 ± 0.2	1.20	2.0Ref	3.3Ref	1.1Ref	1.9Ref	3.7Ref
AMPI4020	Fig.2	4.0 ± 0.2	4.0 ± 0.2	2.00	2.0Ref	3.3Ref	1.1Ref	1.9Ref	3.7Ref

Unit:mm

SPECIFICATIONS

AMPI201610 Series

Part Number	Inductance (μ H)	Tolerance (%)	Test Condition	DCR Max. (m Ω)	Isat(A)	Irms(A)
AMPI201610SR24MT	0.24	20	1MHz/1V	40	4.50	3.15
AMPI201610SR33MT	0.33	20	1MHz/1V	50	4.20	3.10
AMPI201610SR47MT	0.47	20	1MHz/1V	55	4.00	3.00
AMPI201610SR68MT	0.68	20	1MHz/1V	65	3.50	2.80
AMPI201610S1R0MT	1.0	20	1MHz/1V	96	3.35	2.20
AMPI201610S1R5MT	1.5	20	1MHz/1V	130	1.95	1.80
AMPI201610S2R2MT	2.2	20	1MHz/1V	195	1.90	1.50
AMPI201610S3R3MT	3.3	20	1MHz/1V	310	1.40	1.20
AMPI201610S4R7MT	4.7	20	1MHz/1V	440	1.20	1.00
AMPI201610S6R8MT	6.8	20	1MHz/1V	540	0.90	0.85
AMPI201610S100MT	10	20	1MHz/1V	826	0.80	0.70
AMPI201610S150MT	15	20	1MHz/1V	1700	0.70	0.40
AMPI201610S220MT	22	20	1MHz/1V	2000	0.50	0.40

AMPI252010 Series

Part Number	Inductance (μ H)	Tolerance (%)	Test Condition	DCR Max. (m Ω)	Isat(A)	Irms(A)
AMPI252010SR24MT	0.24	20	1MHz/1V	26	5.00	4.40
AMPI252010SR33MT	0.33	20	1MHz/1V	35	4.80	4.00
AMPI252010SR47MT	0.47	20	1MHz/1V	45	4.40	3.40
AMPI252010SR56MT	0.56	20	1MHz/1V	48	3.80	3.10
AMPI252010SR68MT	0.68	20	1MHz/1V	59	3.20	3.00
AMPI252010S1R0MT	1.0	20	1MHz/1V	76	3.10	2.60
AMPI252010S1R5MT	1.5	20	1MHz/1V	106	2.60	2.00
AMPI252010S2R2MT	2.2	20	1MHz/1V	155	1.90	1.80
AMPI252010S3R3MT	3.3	20	1MHz/1V	235	1.60	1.50
AMPI252010S4R7MT	4.7	20	1MHz/1V	276	1.30	1.20
AMPI252010S6R8MT	6.8	20	1MHz/1V	430	1.10	1.00
AMPI252010S100MT	10	20	1MHz/1V	520	0.90	0.85

AMPI252012 Series

Part Number	Inductance (μ H)	Tolerance (%)	Test Condition	DCR Max. (m Ω)	Isat(A)	Irms(A)
AMPI252012SR24MT	0.24	20	1MHz/1V	30	6.50	4.50
AMPI252012SR33MT	0.33	20	1MHz/1V	36	5.30	3.20
AMPI252012SR47MT	0.47	20	1MHz/1V	40	4.90	3.10
AMPI252012SR68MT	0.68	20	1MHz/1V	50	3.85	3.00
AMPI252012S1R0MT	1.0	20	1MHz/1V	60	3.80	2.90
AMPI252012S1R5MT	1.5	20	1MHz/1V	86	2.90	2.10

Part Number	Inductance (μ H)	Tolerance (%)	Test Condition	DCR Max. (m Ω)	Isat(A)	Irms(A)
AMPI252012S2R2MT	2.2	20	1MHz/1V	115	2.60	2.00
AMPI252012S3R3MT	3.3	20	1MHz/1V	190	1.90	1.70
AMPI252012S4R7MT	4.7	20	1MHz/1V	235	1.80	1.50
AMPI252012S6R8MT	6.8	20	1MHz/1V	380	1.15	1.10
AMPI252012S100MT	10	20	1MHz/1V	480	1.10	1.00
AMPI252012S220MT	22	20	1MHz/1V	1080	0.70	0.65

AMPI3012 Series

Part Number	Inductance (μ H)	Tolerance (%)	Test Condition	DCR Max. (Ω)	Isat(A)	Irms(A)
AMPI3012SR22MT	0.22	20	1MHz/1V	0.026	9.30	4.20
AMPI3012SR33MT	0.33	20	1MHz/1V	0.032	7.20	4.10
AMPI3012SR47MT	0.47	20	1MHz/1V	0.040	6.80	3.80
AMPI3012SR68MT	0.68	20	1MHz/1V	0.046	5.80	3.10
AMPI3012S1R0MT	1.0	20	1MHz/1V	0.054	4.20	2.70
AMPI3012S1R5MT	1.5	20	1MHz/1V	0.074	3.40	2.50
AMPI3012S2R2MT	2.2	20	1MHz/1V	0.108	2.80	2.05
AMPI3012S3R3MT	3.3	20	1MHz/1V	0.185	2.20	1.50
AMPI3012S4R7MT	4.7	20	1MHz/1V	0.255	2.00	1.15
AMPI3012S6R8MT	6.8	20	1MHz/1V	0.340	1.60	1.10
AMPI3012S100MT	10	20	1MHz/1V	0.474	1.20	1.00
AMPI3012S150MT	15	20	1MHz/1V	0.740	1.10	0.53
AMPI3012S220MT	22	20	1MHz/1V	1.200	0.96	0.40

AMPI3015 Series

Part Number	Inductance (μ H)	Tolerance (%)	Test Condition	DCR Max. (Ω)	Isat(A)	Irms(A)
AMPI3015SR22MT	0.22	20	1MHz/1V	0.019	8.80	5.00
AMPI3015SR24MT	0.24	20	1MHz/1V	0.019	8.60	5.00
AMPI3015SR33MT	0.33	20	1MHz/1V	0.021	8.00	4.90
AMPI3015SR47MT	0.47	20	1MHz/1V	0.026	7.60	4.60
AMPI3015SR68MT	0.68	20	1MHz/1V	0.037	7.00	3.80
AMPI3015S1R0MT	1.0	20	1MHz/1V	0.048	5.80	3.30
AMPI3015S1R5MT	1.5	20	1MHz/1V	0.072	4.60	2.20
AMPI3015S2R2MT	2.2	20	1MHz/1V	0.095	3.70	2.20
AMPI3015S3R3MT	3.3	20	1MHz/1V	0.150	3.40	2.00
AMPI3015S4R7MT	4.7	20	1MHz/1V	0.185	2.50	1.70
AMPI3015S6R8MT	6.8	20	1MHz/1V	0.320	2.00	1.20
AMPI3015S100MT	10	20	1MHz/1V	0.450	1.60	1.10
AMPI3015S150MT	15	20	1MHz/1V	0.610	1.45	1.10
AMPI3015S220MT	22	20	1MHz/1V	0.910	1.00	0.56

AMPI4012 Series

Part Number	Inductance (μ H)	Tolerance (%)	Test Condition	DCR Max. (Ω)	Isat(A)	Irms(A)
AMPI4012SR47MT	0.47	20	1MHz/1V	0.041	7.20	3.80
AMPI4012SR56MT	0.56	20	1MHz/1V	0.050	6.00	3.20
AMPI4012SR68MT	0.68	20	1MHz/1V	0.055	5.20	3.25
AMPI4012S1R0MT	1.0	20	1MHz/1V	0.059	3.80	3.00
AMPI4012S1R5MT	1.5	20	1MHz/1V	0.075	3.80	2.80
AMPI4012S2R2MT	2.2	20	1MHz/1V	0.090	2.80	2.50
AMPI4012S3R3MT	3.3	20	1MHz/1V	0.130	2.80	2.00
AMPI4012S4R7MT	4.7	20	1MHz/1V	0.175	2.30	1.80
AMPI4012S6R8MT	6.8	20	1MHz/1V	0.230	1.60	1.50
AMPI4012S8R2MT	8.2	20	1MHz/1V	0.273	1.58	1.46
AMPI4012S100MT	10	20	1MHz/1V	0.360	1.55	0.85

AMPI4020 Series

Part Number	Inductance (μ H)	Tolerance (%)	Test Condition	DCR Max. (Ω)	Isat(A)	Irms(A)
AMPI4020SR24MT	0.24	20	1MHz/1V	0.017	14.00	6.00
AMPI4020SR33MT	0.33	20	1MHz/1V	0.020	13.00	5.90
AMPI4020SR47MT	0.47	20	1MHz/1V	0.022	11.00	5.90
AMPI4020SR68MT	0.68	20	1MHz/1V	0.025	9.00	5.80
AMPI4020S1R0MT	1.0	20	1MHz/1V	0.028	8.70	5.80
AMPI4020S1R5MT	1.5	20	1MHz/1V	0.038	7.70	5.20
AMPI4020S2R2MT	2.2	20	1MHz/1V	0.056	6.00	4.00
AMPI4020S3R3MT	3.3	20	1MHz/1V	0.088	4.70	3.40
AMPI4020S4R7MT	4.7	20	1MHz/1V	0.115	4.00	2.85
AMPI4020S6R8MT	6.8	20	1MHz/1V	0.160	3.00	2.40
AMPI4020S8R2MT	8.2	20	1MHz/1V	0.220	2.90	2.10
AMPI4020S100MT	10	20	1MHz/1V	0.220	2.80	2.00
AMPI4020S150MT	15	20	1MHz/1V	0.400	2.10	1.00
AMPI4020S220MT	22	20	1MHz/1V	0.545	1.30	0.95
AMPI4020S330MT	33	20	1MHz/1V	0.850	1.20	0.70
AMPI4020S470MT	47	20	1MHz/1V	1.200	1.10	0.56

Note:

Rated current: Isat or Irms, whichever is smaller.

Isat: DC current at which the inductance drops approximate 30% from its value without current.

Irms: DC current that causes the temperature rise($\Delta T=40^{\circ}\text{C}$) from 25°C ambient.

For AMPI2016 & 2520 size inductors, absolute maximum voltage: DC 25V; For AMPI30 & AMPI40 size inductors, absolute maximum voltage: DC 30V.

All the data listed in this catalogue are for reference only, Design as Customer's Requested Specifications.