

High Current Power Inductors / AMPI_ED Series

Features

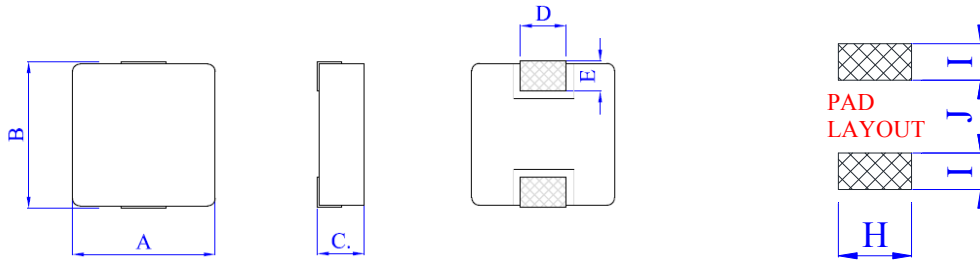
- High performance realized by metal core.
- Compact and low profile with max.3.0mm.
- Low loss realized with low DCR and high Isat.
- Applicable at high frequency up to 750 KHz.
- RoHS compliant.



Applications

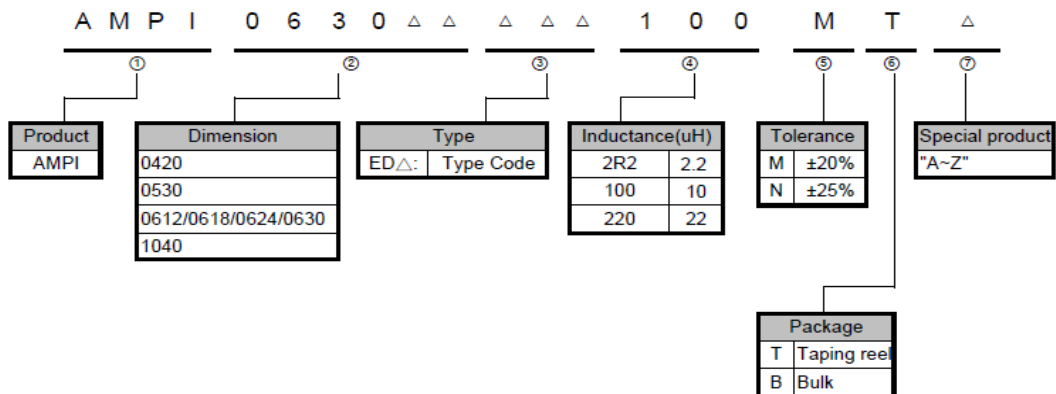
- DC/DC converter for CPU in Notebook PC.
- Thin type on-board power supply module for exchanger VRM for server.

● Shape & Dimensions



TYPE	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	H (Ref.)	I (Ref.)	J (Ref.)
AMPI0420ED	4.1±0.2	4.6±0.2	2.0 MAX.	1.5±0.3	1.0±0.5	2.5	1.50	2.2
AMPI0530ED	5.2±0.2	5.4±0.3	2.8±0.2	2.2±0.3	1.2±0.2	2.5	1.90	2.2
AMPI0612ED	6.6±0.2	7.1±0.2	1.0±0.2	2.9±0.1	1.8±0.3	3.43	1.83	3.71
AMPI0618ED	6.6±0.2	7.1±0.3	1.6±0.2	3.0±0.3	1.6±0.5	3.5	2.35	3.7
AMPI0624ED	6.6±0.2	7.1±0.3	2.4 MAX.	3.0±0.3	1.6±0.5	3.5	2.35	3.7
AMPI0630ED	6.6±0.2	7.1±0.3	3.0 MAX.	3.0±0.3	1.6±0.5	3.5	2.35	3.7
AMPI1040ED	10.0±0.3	11.5 MAX.	3.8±0.2	3.0±0.5	2.0±0.5	4.1	4.10	5.4

■ PRODUCT IDENTIFICATION



◆ AMPI0420ED Series Specification :

Part Number	Inductance (μ H)	Test Freq. (KHz)	DCR ($m\Omega$) Max.	Saturation Current (A) Typ.	Temp. Rise Current (A) Typ.
AMPI0420EDR10□T	0.10	100	4.0	27.0	13.0
AMPI0420EDR22□T	0.22	100	6.6	21.0	9.5
AMPI0420EDR47□T	0.47	100	14.0	11.0	7.5
AMPI0420EDR56□T	0.56	100	16.0	11.0	7.0
AMPI0420EDR68□T	0.68	100	18.0	8.6	7.0
AMPI0420ED1R0□T	1.0	100	27.0	7.0	4.5
AMPI0420ED1R2□T	1.2	100	27.0	6.5	4.5
AMPI0420ED1R5□T	1.5	100	46.0	6.0	4.0
AMPI0420ED2R2□T	2.2	100	58.0	5.0	3.0
AMPI0420ED3R3□T	3.3	100	87.0	4.0	2.5
AMPI0420ED4R7□T	4.7	100	105.0	3.0	2.2
AMPI0420ED6R8□T	6.8	100	135.0	3.0	2.0
AMPI0420ED100□T	10	100	258.0	2.0	1.6

NOTE :

* The operating temperature range is -40°C to $+125^{\circ}\text{C}$ (Including self-temperature rise).

* □ Tolerance M : $\pm 20\%$

*Isat:For Inductance drop approximately 30% from its value without current.

*Irms:Typical Heat Rating D.C current would cause an approximately ΔT of 40°C .

◆ AMPI0530ED Series Specification :

Part Number	Inductance (μ H)	Test Freq. (KHz)	DCR ($m\Omega$) Max.	Saturation Current (A) Typ.	Temp. Rise Current (A) Typ.
AMPI0530EDR20□T	0.20	100	3.9	17.0	14.0
AMPI0530EDR47□T	0.47	100	8.0	15.0	11.0
AMPI0530EDR68□T	0.68	100	12.0	13.0	9.0
AMPI0530ED1R0□T	1.0	100	14.0	11.0	8.1
AMPI0530ED1R2□T	1.2	100	16.0	11.0	8.1
AMPI0530ED1R5□T	1.5	100	25.0	10.0	7.2
AMPI0530ED2R2□T	2.2	100	29.0	7.5	5.5
AMPI0530ED3R3□T	3.3	100	38.0	6.0	4.8
AMPI0530ED4R7□T	4.7	100	60.0	5.0	4.5
AMPI0530ED6R8□T	6.8	100	90.0	4.0	3.5
AMPI0530ED100□T	10	100	125.0	3.5	2.5

NOTE :

* The operating temperature range is -40°C to $+125^{\circ}\text{C}$ (Including self-temperature rise).

* □ Tolerance M : $\pm 20\%$

*Isat:For Inductance drop approximately 30% from its value without current.

*Irms:Typical Heat Rating D.C current would cause an approximately ΔT of 40°C .

◆ AMPI0612ED Series Specification :

Part Number	Inductance (μ H)	Test Freq. (KHz)	DCR ($m\Omega$) Max.	Saturation Current (A) Typ.	Temp. Rise current (A) Typ.
AMPI0612EDR56□T	0.56	100	15.5	11.0	8.0
AMPI0612EDR68□T	0.68	100	17.5	9.0	7.0
AMPI0612ED1R0□T	1.0	100	29.0	7.5	6.0
AMPI0612ED2R2□T	2.2	100	58.0	5.0	4.0
AMPI0612ED3R3□T	3.3	100	92.0	4.0	3.5
AMPI0612ED4R7□T	4.7	100	122.0	3.5	2.8
AMPI0612ED6R8□T	6.8	100	210.0	2.8	2.1
AMPI0612ED100□T	10	100	280.0	2.2	2.0

NOTE :

* The operating temperature range is -40°C to $+125^{\circ}\text{C}$ (Including self-temperature rise).

* □ Tolerance M : $\pm 20\%$

*Isat:For Inductance drop approximately 30% from its value without current.

*Irms:Typical Heat Rating D.C current would cause an approximately ΔT of 40°C .

◆ AMPI0618ED Series Specification :

Part Number	Inductance (μ H)	Test Freq. (KHz)	DCR ($m\Omega$) Max.	Saturation Current (A) Typ.	Temp. Rise current (A) Typ.
AMPI0618EDR68□T	0.68	100	12.7	17.0	9.0
AMPI0618ED1R0□T	1.0	100	17.0	14.0	7.0
AMPI0618ED1R5□T	1.5	100	26.0	12.0	6.5
AMPI0618ED2R2□T	2.2	100	35.0	8.0	5.0
AMPI0618ED3R3□T	3.3	100	60.0	8.0	3.5
AMPI0618ED4R7□T	4.7	100	70.0	5.0	3.5
AMPI0618ED6R8□T	6.8	100	110.0	4.0	2.8
AMPI0618ED6R8□TA	6.8	100	110.0	4.5	2.8
AMPI0618ED100□T	10	100	155.0	2.5	2.3

NOTE :

* The operating temperature range is -40°C to $+125^{\circ}\text{C}$ (Including self-temperature rise).

* □ Tolerance M : $\pm 20\%$

*Isat:For Inductance drop approximately 30% from its value without current.

*Irms:Typical Heat Rating D.C current would cause an approximately ΔT of 40°C .

◆ AMPI0624ED Series Specification :

Part Number	Inductance (μ H)	Test Freq. (KHz)	DCR ($m\Omega$) Max.	Saturation Current (A) Typ.	Temp. Rise Current (A) Typ.
AMPI0624EDR22□T	0.22	100	3.0	34.0	21.0
AMPI0624EDR33□T	0.33	100	4.1	26.0	18.0
AMPI0624EDR47□T	0.47	100	5.1	22.0	15.0
AMPI0624EDR56□T	0.56	100	6.5	17.0	13.0
AMPI0624EDR68□T	0.68	100	7.0	16.0	12.0
AMPI0624ED1R0□T	1.0	100	13.5	16.0	9.0
AMPI0624ED1R5□T	1.5	100	20.0	15.0	9.0
AMPI0624ED2R2□T	2.2	100	28.0	12.0	7.0
AMPI0624ED3R3□T	3.3	100	39.0	8.5	5.5
AMPI0624ED4R7□T	4.7	100	50.0	7.5	5.0
AMPI0624ED6R8□T	6.8	100	65.0	6.0	4.0
AMPI0624ED100□T	10	100	101.0	5.0	3.1
AMPI0624ED150□T	15	100	160.0	3.3	2.5

NOTE :

* The operating temperature range is -40°C to $+125^{\circ}\text{C}$ (Including self-temperature rise).

* □ Tolerance M : $\pm 20\%$

*Isat:For Inductance drop approximately 30% from its value without current.

*Irms:Typical Heat Rating D.C current would cause an approximately ΔT of 40°C .

◆ AMPI0630ED Series Specification :

Part Number	Inductance (μ H)	Test Freq. (KHz)	DCR ($m\Omega$) Max.	Saturation Current (A) Typ.	Temp. Rise current (A) Typ.
AMPI0630EDR22□T	0.22	100	3.0	42.0	24.0
AMPI0630EDR24□T	0.24	100	3.1	31.0	23.0
AMPI0630EDR33□T	0.33	100	3.5	30.0	21.0
AMPI0630EDR47□T	0.47	100	4.1	20.0	18.0
AMPI0630EDR56□T	0.56	100	4.5	18.0	16.5
AMPI0630EDR68□T	0.68	100	5.3	17.0	16.0
AMPI0630EDR82□T	0.82	100	6.0	17.0	14.0
AMPI0630ED1R0□T	1.0	100	7.4	15.0	12.0
AMPI0630ED1R5□T	1.5	100	12.1	14.0	10.0
AMPI0630ED2R2□T	2.2	100	15.0	10.0	8.0
AMPI0630ED3R3□T	3.3	100	22.0	9.5	6.5
AMPI0630ED4R7□T	4.7	100	33.0	6.5	5.5
AMPI0630ED6R8□T	6.8	100	50.0	6.0	4.5
AMPI0630ED8R2□T	8.2	100	60.0	6.0	4.2
AMPI0630ED100□T	10	100	68.0	5.5	4.0
AMPI0630ED150□T	15	100	115.0	4.5	3.0
AMPI0630ED220□T	22	100	200.0	3.0	2.3
AMPI0630ED330□T	33	100	310.0	3.0	2.0

NOTE :

* The operating temperature range is -40°C to $+125^{\circ}\text{C}$ (Including self-temperature rise).

* □ Tolerance M : $\pm 20\%$

* I_{sat} : For Inductance drop approximately 30% from its value without current.

* I_{rms} : Typical Heat Rating D.C current would cause an approximately ΔT of 40°C .

◆ AMPI1040ED Series Specification :

Part Number	Inductance (μH)	Test Freq. (KHz)	DCR ($\text{m}\Omega$) Max.	Saturation Current (A) Typ.	Temp. Rise Current (A) Typ.
AMPI1040EDR47□T	0.47	100	1.7	40.0	30.0
AMPI1040EDR56□T	0.56	100	1.8	33.0	25.0
AMPI1040EDR68□T	0.68	100	2.4	30.0	23.0
AMPI1040ED1R0□T	1.0	100	3.3	28.0	19.0
AMPI1040ED1R5□T	1.5	100	4.2	26.0	16.0
AMPI1040ED2R2□T	2.2	100	7.0	18.0	12.0
AMPI1040ED3R3□T	3.3	100	11.8	16.0	11.0
AMPI1040ED4R7□T	4.7	100	20.0	15.5	9.0
AMPI1040ED6R8□T	6.8	100	25.0	12.0	8.5
AMPI1040ED8R2□T	8.2	100	27.0	9.0	8.0
AMPI1040ED100□T	10	100	30.0	8.5	7.8
AMPI1040ED150□T	15	100	45.0	7.0	6.5
AMPI1040ED220□T	22	100	66.0	5.5	5.0
AMPI1040ED330□T	33	100	92.0	5.5	4.4
AMPI1040ED470□T	47	100	145.0	3.5	3.3
AMPI1040ED680□T	68	100	195.0	3.0	2.5

NOTE :

* The operating temperature range is -40°C to $+125^{\circ}\text{C}$ (Including self-temperature rise).

* □ Tolerance M : $\pm 20\%$

* I_{sat} : For Inductance drop approximately 30% from its value without current.

* I_{rms} : Typical Heat Rating D.C current would cause an approximately ΔT of 40°C .