



# HITANO ENTERPRISE CORP.

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## Data Sheet

Customer: \_\_\_\_\_

Product : SMD Power Inductors Molding HVMPI SERIES

Size: 0420 、 0618 、 0630 、 0603 、 1040 、 1265

Issued Date: \_\_\_\_\_

Edition : \_\_\_\_\_

## Record of change

Date	Ver.	Description	Page

### VENDOR :

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### MAKER :

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# HIGH CURRENT POWER INDUCTORS / HVMPI Type Series

## For Automotive Electronics

### • Features

- High performance (Isat) realized by metal dust core
- Low profile: Thickness max. 2.1mm
- Low loss realized with low DCR
- Capable of corresponding high frequency (1MHz)
- 100% lead (Pb) free meet RoHS standard
- AEC-Q200 qualified

### • Applications

- Engine and transmission control units
- Diesel injection drivers
- DC/DC converters for entertainment/navigation systems
- Noise suppression for motors
  - Windshield wipers
  - Power seats
  - Power mirrors
  - Heating and ventilation blowers
  - HID lighting
  - LED drivers

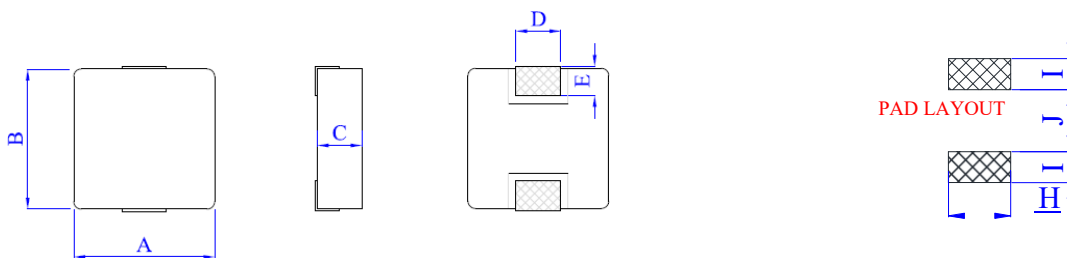


Fig.1



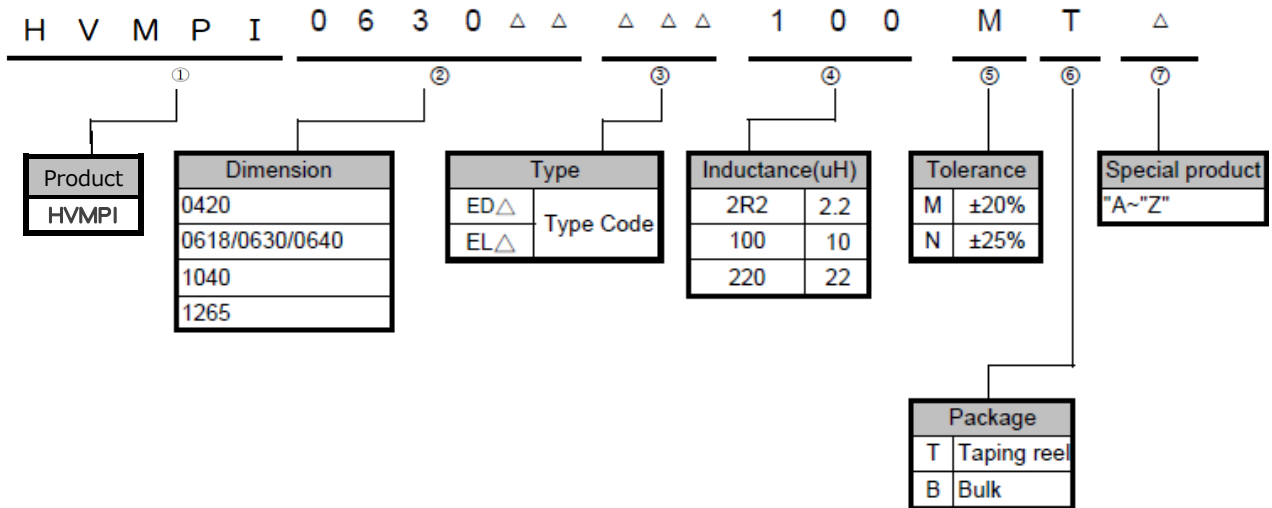
### • Shape & Dimensions

Fig.2



TYPE	Figure	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	H (Ref.)	I (Ref.)	J (Ref.)
HVMPI0420ED	1	4.1 ±0.2	4.6 ±0.2	2.0 M A X .	1.5 ± 0.3	1.0 ±0.5	2.5	1.5 0	2.2
HVMPI0420EL	1	4.1 ±0.2	4.6 ±0.2	2.0 M A X .	1.5 ± 0.3	1.0 ±0.5	2.5	1.5 0	2.2
HVMPI0618ED	1	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
HVMPI0630ED	1	6.6 ±0.2	7.1 ±0.3	3.0 M A X .	3.0 ± 0.3	1.6 ±0.5	3.5	2.3 5	3.7
HVMPI0603EL	1	6.6 ±0.2	7.1 ±0.3	3.0 M A X .	3.0 ± 0.3	1.6 ±0.5	3.5	2.3 5	3.7
HVMPI0640ED	1	6.6 ±0.2	7.1 ±0.3	4.0 M A X .	3.0 ± 0.3	1.6 ±0.5	3.5	2.3 5	3.7
HVMPI1040ED	2	10.5 ±0.5	11.5 ±1.0	4.0 M A X .	3.0 ± 0.5	2.5 ±0.5	4.0	3.5 0	6.0
HVMPI1265EL	2	12.8 ±0.5	13.5 ±1.0	6.5 M A X .	3.8 R E F .	2.5 R E F .	5.0	4.5 0	6.0

■ PRODUCT IDENTIFICATION



◆ HVMPI0420ED Series Specification :

Part Number	Inductance (uH)	Test Freq. (KHz)	DCR (mΩ) Max.	Saturation Current (A) Typ.	Temp. Rise Current (A) Typ.
HVMPI0420EDR10□T	0.10	100	4.0	27.0	13.0
HVMPI0420EDR22□T	0.22	100	6.6	21.0	9.5
HVMPI0420EDR33□T	0.33	100	13.0	12.0	8.0
HVMPI0420EDR47□T	0.47	100	14.0	11.0	7.5
HVMPI0420EDR56□T	0.56	100	16.0	11.0	7.0
HVMPI0420EDR68□T	0.68	100	18.0	8.6	7.0
HVMPI0420ED1R0□T	1.0	100	27.0	7.0	4.5
HVMPI0420ED1R2□T	1.2	100	27.0	6.5	4.5
HVMPI0420ED1R5□T	1.5	100	46.0	6.0	4.0
HVMPI0420ED2R2□T	2.2	100	58.0	5.0	3.0
HVMPI0420ED3R3□T	3.3	100	87.0	4.0	2.5
HVMPI0420ED4R7□T	4.7	100	105.0	3.0	2.2
HVMPI0420ED6R8□T	6.8	100	135.0	3.0	2.0
HVMPI0420ED8R2□T	8.2	100	216.0	2.5	1.75
HVMPI0420ED100□T	10	100	258.0	2.0	1.6

**NOTE:**

\* The operating temperature range is -40°C to +125°C (Including self-temperature rise)

\* □ Tolerance M: ±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

## ◆ HVMPI0420EL Series Specification :

Part Number	Inductance ( $\mu$ H)	Test Freq. (KHz)	DCR (m $\Omega$ ) Max.	Saturation Current (A) Typ.	Temp. Rise current (A) Typ.
HVMPI0420ELR22□TA	0.22	100	5.5	18.0	10.0
HVMPI0420EL1R0□TA	1.0	100	17.0	8.0	5.5
HVMPI0420EL1R5□TA	1.5	100	46.0	7.5	3.3
HVMPI0420EL2R2□TA	2.2	100	38.5	6.0	4.0
HVMPI0420EL4R7□TA	4.7	100	85.0	4.0	2.5

### NOTE:

\* The operating temperature range is -40°C to +125°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  $\Delta T$  of 40°C

## ◆ HVMPI0618ED Series Specification :

Part Number	Inductance ( $\mu$ H)	Test Freq. (KHz)	DCR (m $\Omega$ ) Max.	Saturation Current (A) Typ.	Temp. Rise current (A) Typ.
HVMPI0618EDR47□T	0.47	100	8.4	18.0	11.0
HVMPI0618EDR68□T	0.68	100	12.7	17.0	9.0
HVMPI0618EDR82□T	0.82	100	15.0	17.0	8.0
HVMPI0618ED1R0□T	1.0	100	17.0	14.0	7.0
HVMPI0618ED1R5□T	1.5	100	26.0	12.0	6.5
HVMPI0618ED2R2□T	2.2	100	35.0	8.0	5.0
HVMPI0618ED3R3□T	3.3	100	60.0	8.0	3.5
HVMPI0618ED4R7□T	4.7	100	70.0	5.0	3.5
HVMPI0618ED6R8□T	6.8	100	110.0	4.0	2.8
HVMPI0618ED100□T	10	100	155.0	2.5	2.3
HVMPI0618ED220□T	22	100	350.0	2.5	1.8

### NOTE:

\* The operating temperature range is -40°C to +125°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  $\Delta T$  of 40°C

## ◆ HVMPI0630ED Series Specification :

Part Number	Inductance (uH)	Test Freq. (KHz)	DCR (mΩ) Max.	Saturation Current (A) Typ.	Temp. Rise current (A) Typ.
HVMPI0630EDR47□T	0.47	100	4.1	20.0	18.0
HVMPI0630EDR68□T	0.68	100	5.3	17.0	16.0
HVMPI0630ED1R0□T	1.0	100	7.4	15.0	12.0
HVMPI0630ED1R5□T	1.5	100	12.1	14.0	10.0
HVMPI0630ED2R2□T	2.2	100	15.0	10.0	8.0
HVMPI0630ED3R3□T	3.3	100	22.0	9.5	6.5
HVMPI0630ED4R7□T	4.7	100	33.0	6.5	5.5
HVMPI0630ED6R8□T	6.8	100	50.0	6.0	4.5
HVMPI0630ED8R2□T	8.2	100	60.0	6.0	4.2
HVMPI0630ED100□T	10	100	68.0	5.5	4.0
HVMPI0630ED150□T	15	100	115.0	4.5	3.0
HVMPI0630ED220□T	22	100	200.0	3.0	2.3
HVMPI0630ED330□T	33	100	310.0	3.0	2.0

### NOTE:

\* The operating temperature range is -40°C to +125°C (Including self-temperature rise)

\* □ Tolerance M: ±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

## ◆ HVMPI0603EL Series Specification :

Part Number	Inductance (uH)	Test Freq. (KHz)	DCR (mΩ) Max.	Saturation Current (A) Typ.	Temp. Rise current (A) Typ.
HVMPI0603ELR47□TA	0.47	100	4.2	26.0	17.5
HVMPI0603ELR68□TA	0.68	100	5.5	25.0	15.5
HVMPI0603EL1R0□TA	1.0	100	8.4	22.0	12.0
HVMPI0603EL1R5□TA	1.5	100	15.0	18.0	9.0
HVMPI0603EL2R2□TA	2.2	100	16.4	14.0	8.0
HVMPI0603EL3R3□TA	3.3	100	30.0	13.5	6.0
HVMPI0603EL4R7□TA	4.7	100	40.0	10.0	5.5
HVMPI0603EL6R8□TA	6.8	100	60.0	8.5	4.8
HVMPI0603EL8R2□TA	8.2	100	68.0	7.0	4.0
HVMPI0603EL100□TA	10	100	105.0	7.0	3.0
HVMPI0603EL220□TA	22	100	125.0	3.0	2.9

### NOTE:

\* The operating temperature range is -40°C to +125°C (Including self-temperature rise)

\* □ Tolerance M: ±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

## ◆ HVMPI0640ED Series Specification :

Part Number	Inductance (uH)	Test Freq. (KHz)	DCR (mΩ) Max.	Saturation Current (A) Typ.	Temp. Rise current (A) Typ.
HVMPI0640ED1R0□T	1.0	100	6.5	17.0	14.0
HVMPI0640ED1R5□T	1.5	100	7.0	11.5	10.0
HVMPI0640ED2R2□T	2.2	100	10.0	11.0	9.0
HVMPI0640ED3R3□T	3.3	100	20.0	12.5	9.0
HVMPI0640ED6R8□T	6.8	100	45.0	6.5	5.5
HVMPI0640ED100□T	10	100	65.0	5.0	5.0
HVMPI0640ED150□T	15	100	105.0	4.5	4.0

### NOTE:

\* The operating temperature range is -40°C to +125°C (Including self-temperature rise)

\* □ Tolerance M: ±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

## ◆ HVMPI1040ED Series Specification :

Part Number	Inductance (uH)	Test Freq. (KHz)	DCR (mΩ) Max.	Saturation Current (A) Typ.	Temp. Rise current (A) Typ.
HVMPI1040ED2R2□T	2.2	100	7.0	18.0	12.0
HVMPI1040ED3R3□T	3.3	100	11.8	16.0	11.0
HVMPI1040ED4R7□T	4.7	100	20.0	15.5	9.0
HVMPI1040ED6R8□T	6.8	100	25.0	12.0	8.5
HVMPI1040ED100□T	10	100	30.0	8.5	7.8
HVMPI1040ED220□T	22	100	66.0	5.5	5.0
HVMPI1040ED470□T	47	100	145.0	3.5	3.3

### NOTE:

\* The operating temperature range is -40°C to +125°C (Including self-temperature rise)

\* □ Tolerance M: ±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

## ◆ HVMPI1265EL Series Specification :

Part Number	Inductance (uH)	Test Freq. (KHz)	DCR (mΩ) Max.	Saturation Current (A) Typ.	Temp. Rise current (A) Typ.
HVMPI1265EL4R7□TA	4.7	100	11.20	30.0	13.5
HVMPI1265EL6R8□TA	6.8	100	14.00	17.5	11.5
HVMPI1265EL8R2□TA	8.2	100	15.50	16.0	10.5
HVMPI1265EL100□TA	10	100	16.80	15.5	10.0
HVMPI1265EL150□TA	15	100	29.00	9.0	6.0
HVMPI1265EL220□TA	22	100	39.50	7.5	5.0
HVMPI1265EL330□TA	33	100	65.00	6.0	5.0
HVMPI1265EL470□TA	47	100	92.00	5.0	4.0
HVMPI1265EL680□TA	68	100	134.00	3.5	2.0

### NOTE:

\* The operating temperature range is -40°C to +125°C (Including self-temperature rise)

\* □ Tolerance M: ±20%

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

\* Irms: Typical heat Rating D.C. current would cause an approximately  $\Delta T$  of 40°C

*\*\* If you have any request not find from above datas, please contact our sales for further information, we may do our best to meet your request.*