

All the data listed in this catalogue are for reference only, TAI-TECH reserves the right to alter or revise the specifications without prior notification.

On-Board Type Hi-Current Power Inductors

For CPU Ultra High Current Power Inductors SMPC Series

SMPC Series

SMD Type for CPU Ultra High Current Power Inductor.

Features

1. Lowest height in this package footprint.
2. Shielded construction.
3. Lowest DCR/ μ H, in this package size.
4. Handles high transient current spikes without saturation.
5. Ultra low buzz noise, due to composite construction.
6. Frequency up to 5MHz.
7. The products contain no lead and also support lead-free soldering.

Applications

Excellent power inductor was use to CPU power line.

特徵

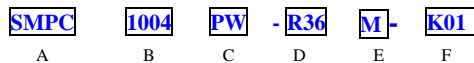
1. 同尺寸高度最低。
2. 遮蔽式電感結構。
3. 同尺寸直流阻抗最低。
4. 可確保耐電流電感值降幅平順。
5. 一體成型的結構可防止噪音。
6. 應用頻率可達5MHz。
7. 產品無鉛適合無鉛錫。

應用

CPU線路穩壓用優良的功率電感

Lead Free Part Numbering

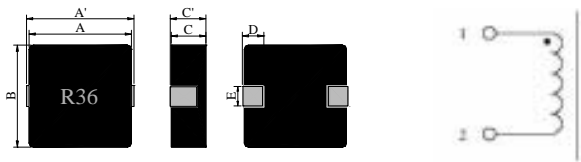
(Patent obtained. Patent No.: M262820, Taiwan)



A: Series
 B: Dimension
 C: Type
 D: Inductance
 E: Inductance Tolerance
 F: Control S/N

Ax C
 R36=0.36 uH
 M=±20% ; Coating Black , Marking white

Dimensions



Chip Size

Series	A(mm)	A'(mm)	B(mm)	C(mm)	C'(mm)	D(mm)	E(mm)
SMPC1003	10.8 max.	11.8 max.	10.5 max.	3.5 typ.	3.7 max.	2.2±0.5	2.4±0.5
SMPC1004	10.8 max.	11.8 max.	10.5 max.	4.0 typ.	4.2 max.	2.2±0.5	2.7±0.5
SMPC 1205	13.0max.	13.9 max.	13.5 max.	5.0 typ.	5.2 max.	2.5±0.5	3.7±0.5

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SMPC 1003PW Series

Part Number	Inductance L0 (uH)±20% @ 0 Adc	I rms (A) Typ.	I sat (A) Typ.	DCR(mΩ) +/-7%.
SMPC1003HW-R36M-K01	0.36	25	48	1.54
SMPC1003HW-R45M-K01	0.45	22	45	1.90
SMPC1003HW-R56M-K01	0.56	20	37	2.55
SMPC1003HW-R68M-K01	0.68	18	30	2.90
SMPC1004HW-R36M-K01	0.36	0.36	30	60
SMPC1004HW-R45M-K01	0.45	0.45	27	50
SMPC1004HW-R56M-K01	0.56	0.56	25	45
SMPC1004HW-R68M-K01	0.68	0.68	24	40
SMPC 1205HW-R36M-K01	0.36	41	75	0.80
SMPC 1205HW-R45M-K01	0.45	38	65	1.05
SMPC 1205HW-R56M-K01	0.56	36	55	1.30
SMPC 1205HW-R68M-K01	0.68	34	54	1.50

Note:

1. Test frequency : 100KHz / 0.25Vdc
2. All test data referenced to 25 ambient.
3. Testing Instrument : L: HP4284A,CH11025,CH3302,CH1320 ,CH1320S LCR METER / Rdc:CH16502,Agilent33420A MICRO OHMMETER.
4. Heat Rated Current (Irms) will cause the coil temperature rise approximately T=40 without core loss.
5. Saturation Current (Isat) will cause L0 to drop approximately 20% typical.
6. The part temperature (ambient + temp rise) should not exceed 125 under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
7. Special inquiries besides the above common used types can be met on your requirement.

Typical; Performance Curves

