

ITEM P/N	TPMC1004H-SERIES	TEST INSTRUMENT	HP4284 / CH16502 Equality
PRODUCT	SMD Inductor	TEST FREQUENCY	100 kHz / 1.0V

CUSTOMER :

CUSTOMER P/N :

DESCRIPTION : SMD INDUCTOR

SINKA P/N : TMPA1005S-SERIES

REVISION NO. : 01

DATE : 2020/5/12

NOTES : STANDARD

DOCUMENTED BY	
APPROVED	Y Imai
CHECKED	Cosby Liu
PREPARED	Wenny Wei

CUSTOMER APPROVAL

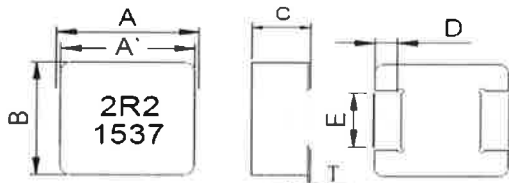
company seals

ITEM P/N**TMPC1004H-SERIES****TEST INSTRUMENT****HP4284 / CH16502 Equality****PRODUCT****SMD Inductor****TEST FREQUENCY****100 kHz / 1.0V****1. Features**

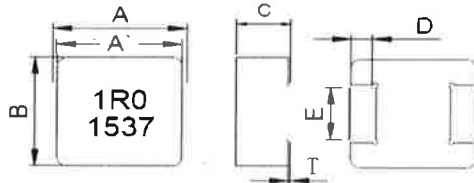
1. Shielded construction.
2. Capable of corresponding high frequency (5MHz).
3. Low loss realized with low DCR.
4. High performance (Isat) realized by metal dust core.
5. Ultra low buzz noise, due to composite construction.
6. 100% Lead(Pb)-Free and RoHS compliant.
7. High reliability -Reliability test complied to AEC-Q200.

2. Applications

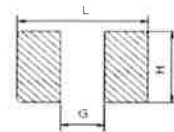
1. DC/DC converters in distributed power systems.
2. DC/DC converter for Field Programmable Gate Array(FPGA).
3. Battery powered devices.
4. Thin type on-board power supply module for exchanger.
5. VRM for server.
6. High current, low profile POL converters.
7. PDA/notebook/desktop/server and battery powered devices.

3. Dimensions

leadframe



non-leadframe

Recommend PC Board Pattern

L(mm)	G(mm)	H(mm)
12.5	5.4	3.5

- Note: 1. The above PCB layout reference only
2. Recommend solder paste thickness at 0.15mm and above

Series	A	A'	B	C	D	T	E	Inductance
TMPA1005SV	11.0±0.5	10.0±0.5	10.0±0.3	4.8±0.2	2.0±0.3	0~0.2	2.5±0.3	0.68~1.50uH among
							3.0±0.3	0.47uH and below 2.20uH and above

Unit:mm

4. Part Numbering

A Series
B Dimension
C Type
D Inductance
E Inductance Tolerance
F Code

BxC
Standard V Vehicle
R 10=0.1uH, 1R0=1.0uH, 100=10uH, 101=100uH, 102=1000uH
K=±10%, L=±15%, M=±20%, N=±25%, Y=±30%
Marking Black 1R0 and 1537(15 YY. 37 WW, follow production date)

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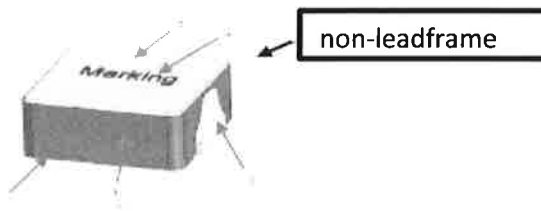
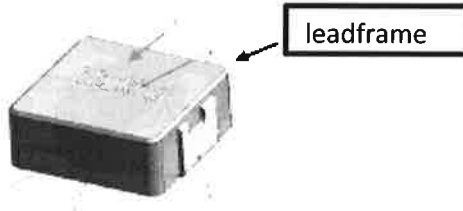
5. Specification

Part Number	Inductance L0 A(μH) ±20%	Heat Rating Current DC I rms.(A)		Saturation Current DC I sat. (A)		DCR (mΩ)Typ	DCR (mΩ)Max	Type
		Typ	Max	Typ	Max			
TMPA1005SV-R36MN-D	0.36	34.0	30.0	52.0	46.0	0.82	0.92	non-leadframe
TMPA1005SV-R47MN-D	0.47	33.0	29.0	46.0	40.0	1.15	1.32	non-leadframe
TMPA1005SV-R68MN-D	0.68	28.0	25.0	35.0	32.0	1.6	1.9	non-leadframe
TMPA1005SV-1R0MN-D	1.00	25.0	23.0	33.0	30.0	2.6	3.0	non-leadframe
TMPA1005SV-1R5MN-D	1.50	23.0	21.0	27.0	24.0	3.4	3.8	non-leadframe
TMPA1005SV-2R2MN-D	2.20	19.5	17.5	20.0	18.0	5.1	5.6	leadframe
TMPA1005SV-3R3MN-D	3.30	17.0	15.0	17.5	15.5	8.1	9.1	leadframe
TMPA1005SV-4R7MN-D	4.70	15.0	13.0	16.0	14.0	9.3	10.5	leadframe
TMPA1005SV-5R6MN-D	5.60	13.0	11.0	15.0	12.5	12.8	14.4	leadframe
TMPA1005SV-6R8MN-D	6.80	12.0	10.0	14.0	12.0	15.0	17.3	leadframe
TMPA1005SV-100MN-D	10.0	7.6	7.2	13.0	11.0	18.9	21.8	leadframe
TMPA1005SV-101MN-D	100	2.2	2.0	2.8	2.4	242.0	290.0	leadframe

Note:

1. Test frequency Ls : 100KHz / 1.0V
2. All test data referenced to 25°C ambient.
3. Testing Instrument(or equ) : L: HP4284A,CH11025,CH3302,CH1320,CH1320S LCR METER / Rdc:CH16502,Agilent33420A MICRO OHMMETER
4. Heat Rated Current (I_{rms}) will cause the coil temperature rise approximately ΔT of 40°C
5. Saturation Current (I_{sat}) will cause L0 to drop approximately 30%.
6. The part temperature (ambient + temp rise) should not exceed 155°C 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

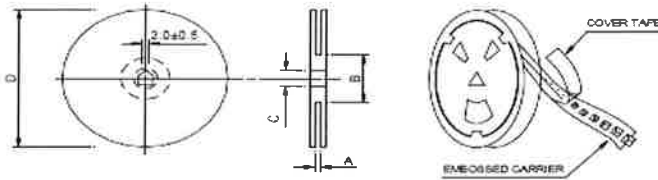
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6. Material List

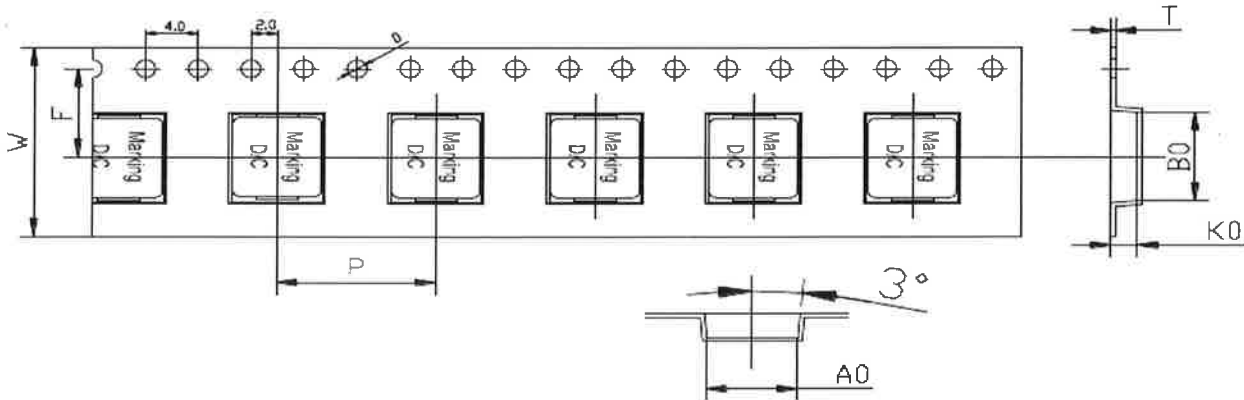
NO	Items	Materials
1	Core	Carbonyl Powder.
2	Wire	Polyester Wire or equivalent.
3	Clip	100% Pb free solder (Ni+Sn—Plating)
4	Ink	Halogen-free ketone
5	paint	Epoxy resin

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9. Packaging Information**(1) Reel Dimension**

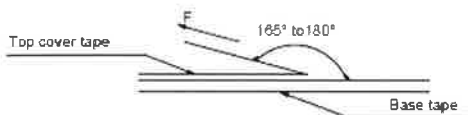
Type	A(mm)	B(mm)	C(mm)	D(mm)
13" x 24mm	24.4+2/-0	100±2	13.5±0.5	330

(2) Tape Dimension

Series	Size	Bo(mm)	Ao(mm)	Ko(mm)	P(mm)	W(mm)	F(mm)	t(mm)	D(mm)
TMPC	1004	11.6±0.1	10.4±0.1	4.5±0.1	16.0±0.1	24±0.3	11.5±0.1	0.35±0.05	1.5±0.1

(3) Packaging Quantity

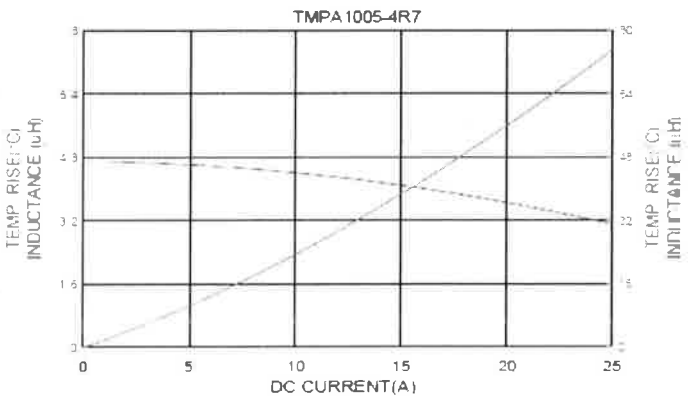
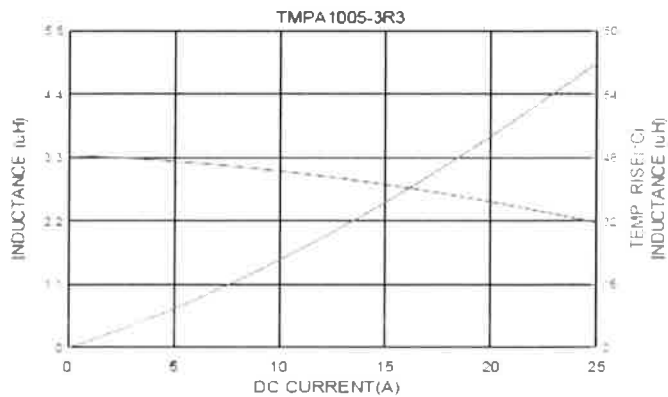
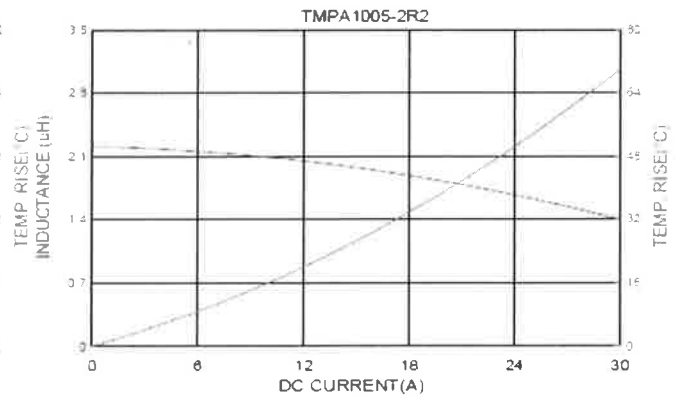
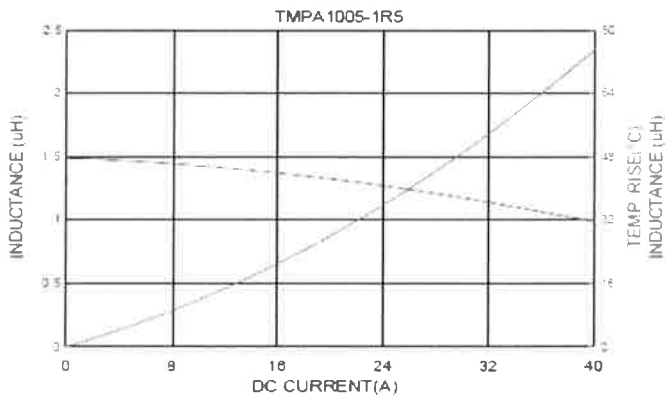
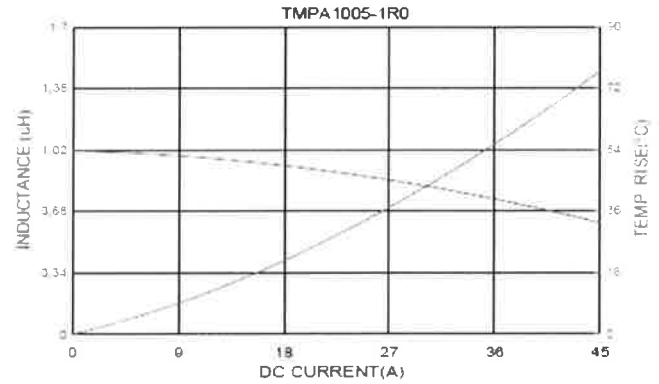
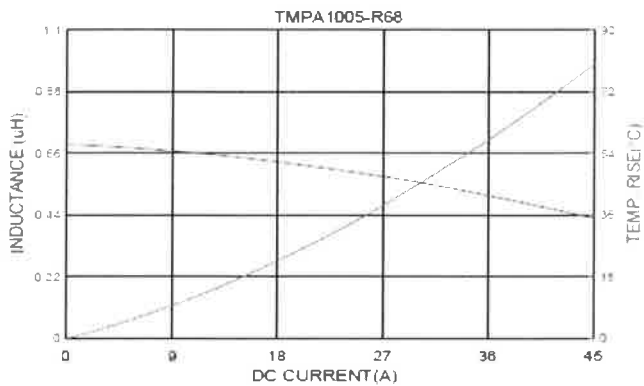
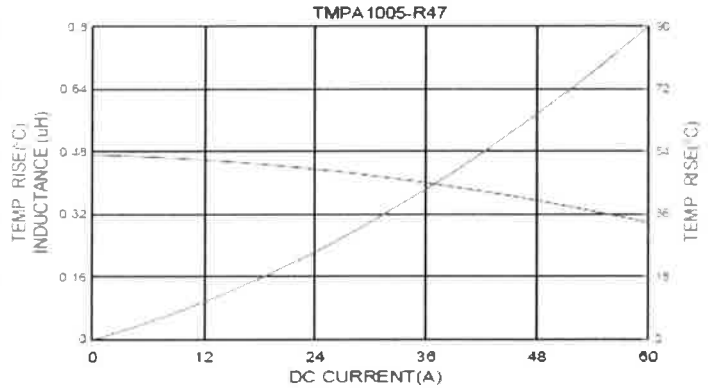
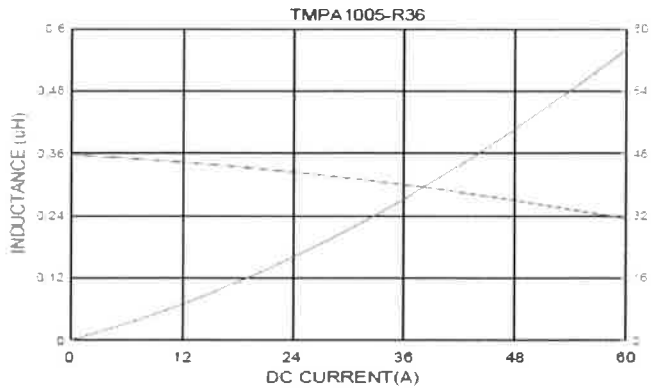
TMPC	1004
Chip / Reel	500
Inner box	1000
Carton	4000

(4) Tearing Off Force

The force for tearing off cover tape is 10 to 130 grams in the arrow direction under the following conditions (referenced ANSI/EIA-481-C-2003 of 4.11 standard).

Room Temp. (°C)	Room Humidity (%)	Room atm (hPa)	Tearing Speed mm/min
5~35	45~85	860~1060	300

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10. DC Bias Characterization

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