SMD Power Inductor

TMIM322510A-Series(G)

1. Features

1. Soft saturation.
2. High current，low DCR，high efficiency.
3. Very low acoustic noise and very low leakage flux noise.
4. High reliability.
5. 100% Lead(Pb)-Free and RoHS compliant.
6. Operating temperature: -40~+125℃ (Including self-temperature rise)

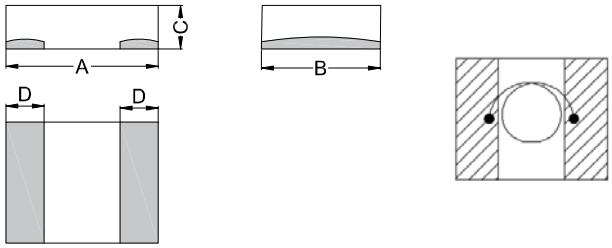
Halogen-free

RoHS

2. Applications

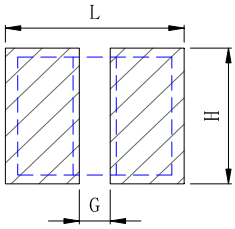
1. DC/DC converte.
2. HDD, SSD and PC peripheral devices.
3. DSC, camcorders，PND，VRM for server.
4. Thin type on-board power supply module for exchanger.
5. Smartphones, tablets and wearable devices，HDDs, DVCs, DSCs,

3. Dimensions



Series	A(mm)	B(mm)	C(mm)	D(mm)
TMIM322510A	3.2±0.3	2.5±0.3	0.8±0.2	1.1±0.3

Recommend PC Board Pattern



L(mm)	G(mm)	H(mm)
3.7	0.7	2.8

Note: 1.PCB layout is referred to standard IPC-7351B
2. The above PCB layout reference only.
3. Recommend solder paste thickness at 0.10mm and above.

4. Part Numbering

TMIM	322510	A	-	1R0	M	G
A	B	C		D	E	F

A: Series
B: Dimension — AxBxC
C: Material
D: Inductance — 1R0=1.00uH
E: Inductance Tolerance — M=±20%
F: Coating

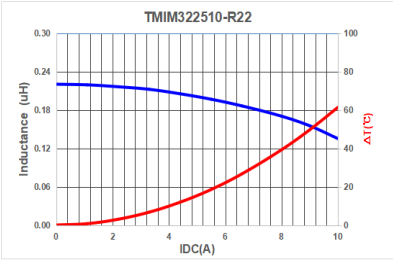
5. Specification

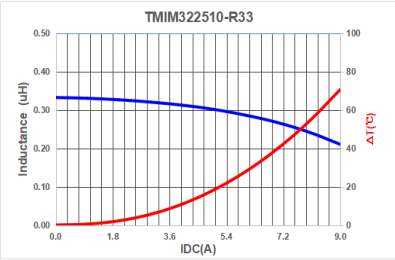
Part Number	Inductance L0 A(uH) ±20%	Heat Rating Current DC ※ Irms(A)		Saturation Current DC I sat (A)		DCR (mΩ) Typ	DCR (mΩ) Max
		Typ	Max	Typ	Max		
TMIM322510A-R22MG	0.22	8.0	7.0	9.0	8.5	11.0	13.2
TMIM322510A-R33MG	0.33	7.0	6.0	8.0	7.0	15.0	18.0
TMIM322510A-R47MG	0.47	6.0	5.5	6.5	5.5	18.0	21.6
TMIM322510A-R68MG	0.68	5.5	5.0	6.0	5.2	22.0	26.4
TMIM322510A-1R0MG	1.00	4.8	4.0	4.8	4.0	30.0	36.0
TMIM322510A-1R5MG	1.50	3.8	3.2	4.3	3.8	48.3	58.0
TMIM322510A-2R2MG	2.20	3.1	2.7	3.6	3.3	67.0	80.4
TMIM322510A-3R3MG	3.30	2.5	2.1	3.1	2.8	100.0	120.0
TMIM322510A-4R7MG	4.70	2.0	1.7	2.2	1.9	143.0	172.0

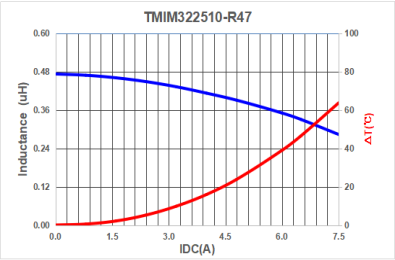
Note:

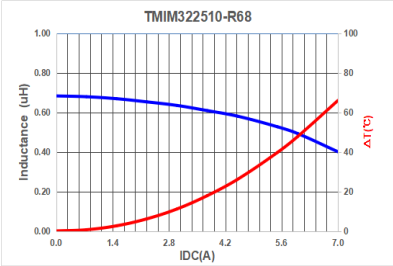
1. Test frequency : Ls : 100KHz /1.0V.
2. All test data referenced to 25℃ ambient.
3. Testing Instrument(or equ) : Agilent 4284A,E4991A,4339B,KEYSIGHT E4980A/AL,chroma3302,3250,16502.
4. Heat Rated Current (Irms) will cause the coil temperature rise approximately ΔT of 40℃
5. Saturation Current (Isat) will cause L0 to drop approximately 30%.
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. Irms Testing : Temperature rise is highly dependent on many factors including pcb land pattern, trace size, and proximity to other components. Therefore temperature rise should be verified in application conditions.
8. Rated DC Current : The less value whith is Irms or Isat.
9. Absolute maximum voltage 25V DC Buck.

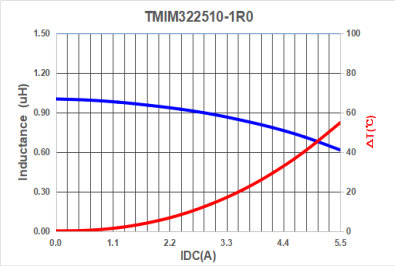
6. Typical Performance Curves

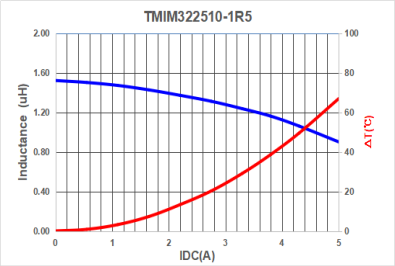


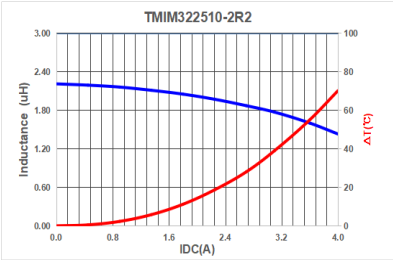


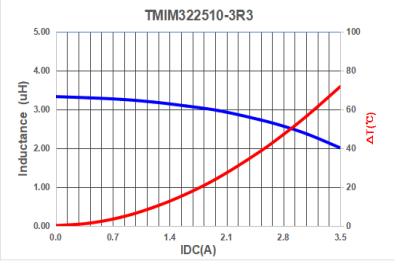


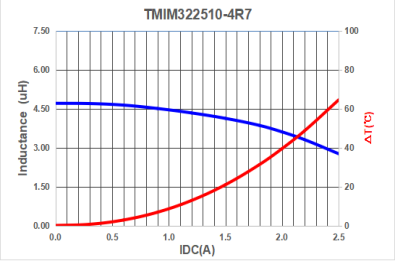












SMD Power Inductor

TMIM322512A-Series(G)

1. Features

1. Soft saturation.
2. High current，low DCR，high efficiency.
3. Very low acoustic noise and very low leakage flux noise.
4. High reliability.
5. 100% Lead(Pb)-Free and RoHS compliant.
6. Operating temperature: -40~+125℃ (Including self-temperature rise)

Halogen-free

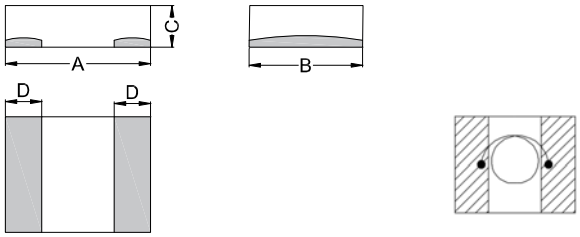
RoHS

2. Applications

Note PC power system，incl. IMVP-6

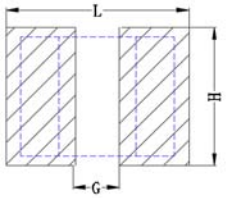
DC/DC converter .

3. Dimensions



Series	A(mm)	B(mm)	C(mm)	D(mm)
TMIM322512A	3.2±0.3	2.5±0.3	1.0±0.2	1.1±0.3

Recommend PC Board Pattern



L(mm)	G(mm)	H(mm)
3.7	0.7	2.8

Note: 1.PCB layout is referred to standard IPC-7351B
2. The above PCB layout reference only.
3. Recommend solder paste thickness at 0.12mm and above.

4. Part Numbering

TMIM	322512	A	-	2R2	M	G
A	B	C		D	E	F

A: Series
B: Dimension AxBxC
C: Material
D: Inductance 2R2=2.20uH
E: Inductance Tolerance M=±20%
F: Coating

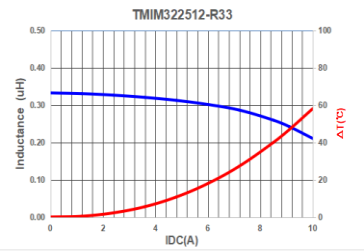
5. Specification

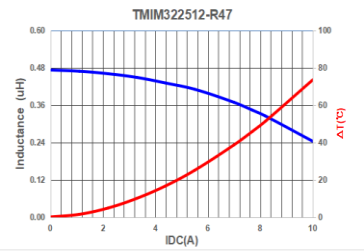
Part Number	Inductance L0 A(uH) ±20%	Heat Rating Current DC ※ Irms(A)		Saturation Current DC I sat (A)		DCR (mΩ) Typ	DCR (mΩ) Max
		Typ	Max	Typ	Max		
TMIM322512A-R33MG	0.33	8.5	8.0	9.1	8.5	10.0	13.0
TMIM322512A-R47MG	0.47	7.0	6.5	8.2	7.4	16.0	19.2
TMIM322512A-R68MG	0.68	6.2	5.7	7.3	6.8	20.0	24.0
TMIM322512A-1R0MG	1.00	5.5	5.0	6.5	5.7	26.0	32.0
TMIM322512A-1R5MG	1.50	4.4	3.9	5.0	4.5	44.0	53.0
TMIM322512A-2R2MG	2.20	4.0	3.6	4.8	4.3	61.0	73.0

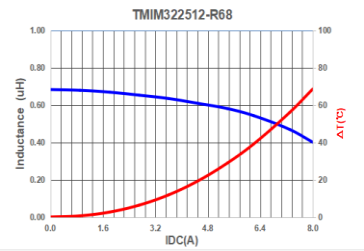
Note:

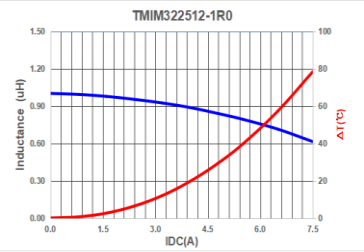
1. Test frequency : Ls : 100KHz /1.0V.
2. All test data referenced to 25℃ ambient.
3. Testing Instrument(or equ) : Agilent 4284A,E4991A,4339B,KEYSIGHT E4980A/AL,chroma3302,3250,16502.
4. Heat Rated Current (Irms) will cause the coil temperature rise approximately △T of 40℃
5. Saturation Current (Isat) will cause L0 to drop approximately 30%.
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. Irms Testing : Temperature rise is highly dependent on many factors including pcb land pattern, trace size, and proximity to other components. Therefore temperature rise should be verified in application conditions.
8. Rated DC Current : The less value whith is Irms or Isat

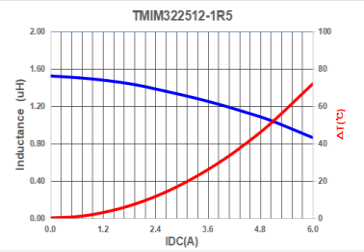
6. Typical Performance Curves

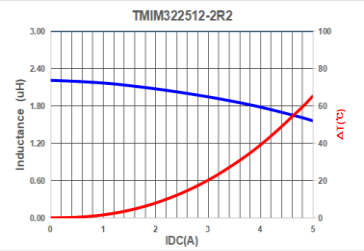












SMD Power Inductor

TMIM201610A-Series(G)

1. Features

1. Soft saturation.
2. High current，low DCR，high efficiency.
3. Very low acoustic noise and very low leakage flux noise.
4. High reliability.
5. 100% Lead(Pb)-Free and RoHS compliant.
6. Operating temperature: -40~+125℃ (Including self-temperature rise)

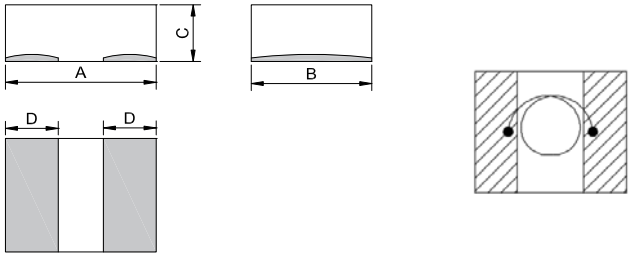
Halogen-free

RoHS

2. Applications

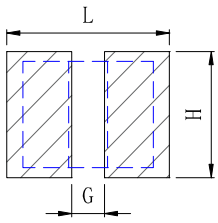
1. DC/DC converte.
2. HDD, SSD and PC peripheral devices.
3. DSC, camcorders，PND，VRM for server.
4. Thin type on-board power supply module for exchanger.
5. Smartphones, tablets and wearable devices，HDDs, DVCs, DSCs,

3. Dimensions



Series	A(mm)	B(mm)	C(mm)	D(mm)
TMIM201610A	2.0±0.3	1.6±0.3	0.8±0.2	0.7±0.3

Recommend PC Board Pattern



L(mm)	G(mm)	H(mm)
2.5	0.5	1.9

Note: 1.PCB layout is referred to standard IPC-7351B
2. The above PCB layout reference only.
3. Recommend solder paste thickness at 0.10mm and above.

4. Part Numbering

TMIM	201610	A	-	R33	M	G
A	B	C		D	E	F

A: Series
B: Dimension — AxBxC
C: Material
D: Inductance — R33=0.33uH
E: Inductance Tolerance — M=±20%
F: Coating

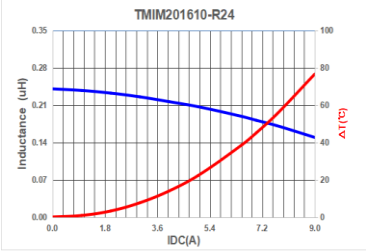
5. Specification

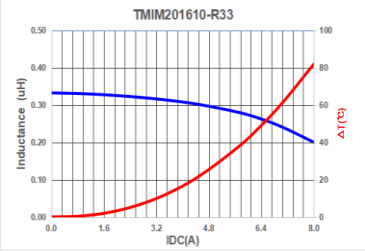
Part Number	Inductance L0 A(uH) ±20%	Heat Rating Current DC ※ Irms(A)		Saturation Current DC I sat (A)		DCR (mΩ) Typ	DCR (mΩ) Max
		Typ	Max	Typ	Max		
TMIM201610A-R24MG	0.24	6.5	5.5	7.7	6.7	18.0	20.5
TMIM201610A-R33MG	0.33	5.7	5.2	7.0	6.2	21.0	26.0
TMIM201610A-R47MG	0.47	5.3	4.7	6.0	5.3	28.0	32.0
TMIM201610A-R56MG	0.56	4.6	4.0	5.2	4.6	31.0	37.2
TMIM201610A-R68MG	0.68	4.0	3.4	5.0	4.4	44.0	50.0
TMIM201610A-1R0MG	1.00	3.6	3.2	4.4	3.8	49.0	59.0
TMIM201610A-1R5MG	1.50	2.6	2.3	3.0	2.7	80.0	96.0
TMIM201610A-2R2MG	2.20	2.3	2.0	2.65	2.45	130.0	150.0

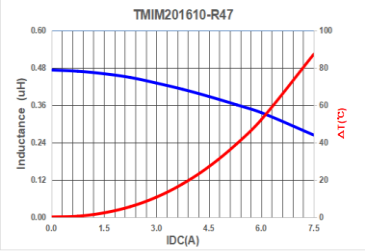
Note:

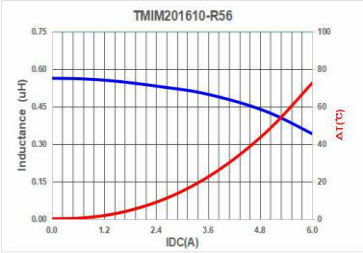
1. Test frequency : Ls : 100KHz /1.0V.
2. All test data referenced to 25℃ ambient.
3. Testing Instrument(or equ) : Agilent 4284A,E4991A,4339B,KEYSIGHT E4980A/AL,chroma3302,3250,16502.
4. Heat Rated Current (Irms) will cause the coil temperature rise approximately ΔT of 40℃
5. Saturation Current (Isat) will cause L0 to drop approximately 30%.
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. Irms Testing : Temperature rise is highly dependent on many factors including pcb land pattern, trace size, and proximity to other components. Therefore temperature rise should be verified in application conditions.
8. Rated DC Current : The less value whith is Irms or Isat
9. Absolute maximum voltage 25V DC Buck.

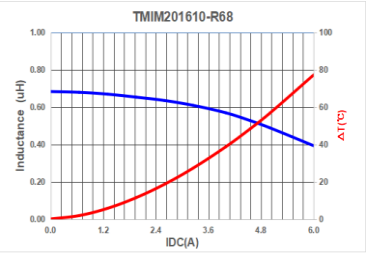
6. Typical Performance Curves

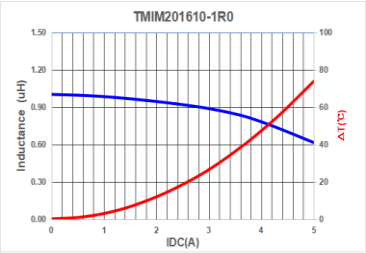


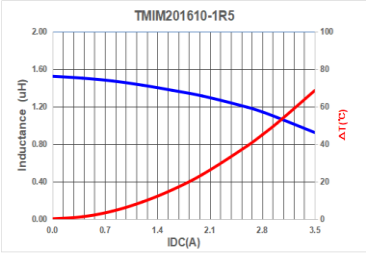


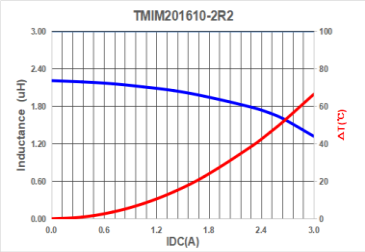












SMD Power Inductor

TMIM252010A-Series(G)

1. Features

1. Soft saturation.
2. High current，low DCR，high efficiency.
3. Very low acoustic noise and very low leakage flux noise.
4. High reliability.
5. 100% Lead(Pb)-Free and RoHS compliant.
6. Operating temperature: -40~+125℃ (Including self-temperature rise)

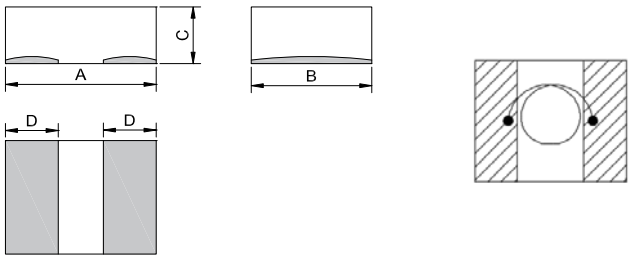
Halogen-free

RoHS

2. Applications

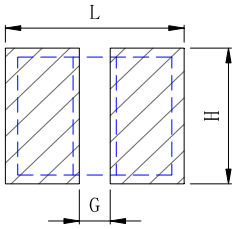
1. DC/DC converte.
2. HDD, SSD and PC peripheral devices.
3. DSC, camcorders，PND，VRM for server.
4. Thin type on-board power supply module for exchanger.
5. Smartphones, tablets and wearable devices，HDDs, DVCs, DSCs,

3. Dimensions



Series	A(mm)	B(mm)	C(mm)	D(mm)
TMIM252010A	2.5±0.3	2.0±0.3	0.8±0.2	0.9±0.3

Recommend PC Board Pattern



L(mm)	G(mm)	H(mm)
2.9	0.5	2.3

Note: 1.PCB layout is referred to standard IPC-7351B
2. The above PCB layout reference only.
3. Recommend solder paste thickness at 0.10mm and above.

4. Part Numbering

TMIM	252010	A	-	1R0	M	G
A	B	C		D	E	F

A: Series
B: Dimension — AxBxC
C: Material
D: Inductance — 1R0=1.00uH
E: Inductance Tolerance — M=±20%
F: Coating

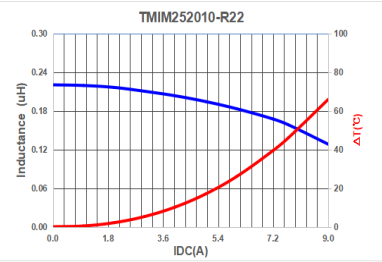
5. Specification

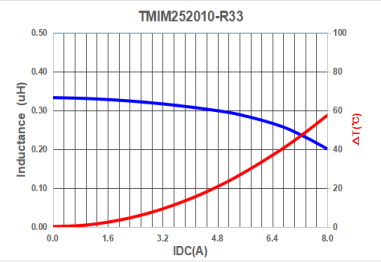
Part Number	Inductance L0 A(uH) ±20%	Heat Rating Current DC Irms(A)		Saturation Current DC I sat (A)		DCR (mΩ) Typ	DCR (mΩ) Max
		Typ	Max	Typ	Max		
TMIM252010A-R22MG	0.22	7.2	6.6	7.7	7.0	12.0	15.0
TMIM252010A-R33MG	0.33	6.6	6.0	7.2	6.4	16.0	19.0
TMIM252010A-R47MG	0.47	5.8	5.1	6.0	5.4	20.0	24.0
TMIM252010A-R68MG	0.68	5.1	4.7	5.2	4.8	25.0	30.0
TMIM252010A-1R0MG	1.00	4.3	4.0	4.6	3.8	42.0	50.4
TMIM252010A-1R5MG	1.50	3.3	3.0	3.5	3.2	60.0	72.0
TMIM252010A-2R2MG	2.20	2.8	2.5	3.0	2.7	85.0	102.0

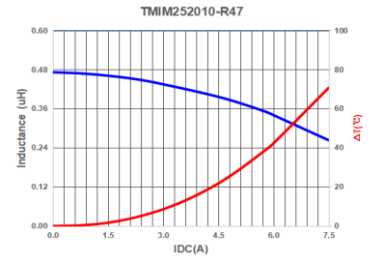
Note:

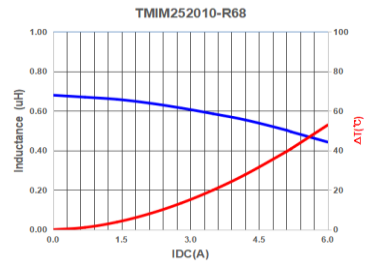
1. Test frequency : Ls : 100KHz /1.0V.
2. All test data referenced to 25℃ ambient.
3. Testing Instrument(or equ) : Agilent 4284A,E4991A,4339B,KEYSIGHT E4980A/AL,chroma3302,3250,16502.
4. Heat Rated Current (Irms) will cause the coil temperature rise approximately ΔT of 40℃
5. Saturation Current (Isat) will cause L0 to drop approximately 30%.
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. Irms Testing : Temperature rise is highly dependent on many factors including pcb land pattern, trace size, and proximity to other components. Therefore temperature rise should be verified in application conditions.
8. Rated DC Current : The less value whith is Irms or Isat.
9. Absolute maximum voltage 25V DC Buck

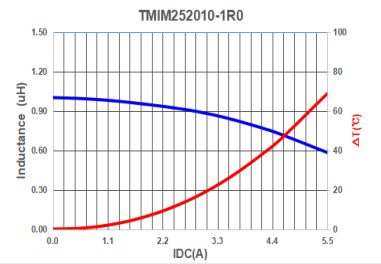
6. Typical Performance Curves

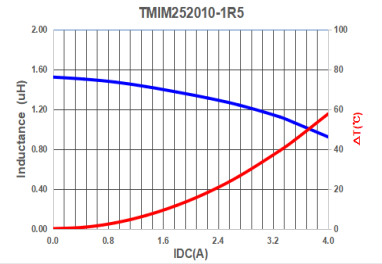


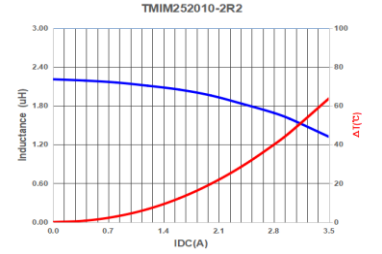












SMD Power Inductor

TMIM252012A-Series(G)

1. Features

1. Soft saturation.
2. High current，low DCR，high efficiency.
3. Very low acoustic noise and very low leakage flux noise.
4. High reliability.
5. 100% Lead(Pb)-Free and RoHS compliant.
6. Operating temperature: -40~+125℃ (Including self-temperature rise)

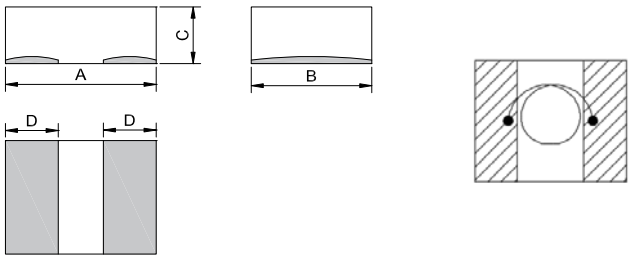
Halogen-free

RoHS

2. Applications

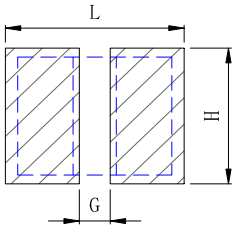
1. DC/DC converte.
2. HDD, SSD and PC peripheral devices.
3. DSC, camcorders，PND，VRM for server.
4. Thin type on-board power supply module for exchanger.
5. Smartphones, tablets and wearable devices，HDDs, DVCs, DSCs,

3. Dimensions



Series	A(mm)	B(mm)	C(mm)	D(mm)
TMIM252012A	2.5±0.3	2.0±0.3	1.0±0.2	0.9±0.3

Recommend PC Board Pattern



L(mm)	G(mm)	H(mm)
2.9	0.5	2.3

Note: 1.PCB layout is referred to standard IPC-7351B
2. The above PCB layout reference only.
3. Recommend solder paste thickness at 0.10mm and above.

4. Part Numbering

TMIM	252012	A	-	R33	M	G
A	B	C		D	E	F

A: Series
B: Dimension — AxBxC
C: Material
D: Inductance — R33=0.33uH
E: Inductance Tolerance — M=±20%
F: Coating

5. Specification

Part Number	Inductance L0 A(uH) ±20%	Heat Rating Current DC ※ Irms(A)		Saturation Current DC I sat (A)		DCR (mΩ) Typ	DCR (mΩ) Max
		Typ	Max	Typ	Max		
TMIM252012A-R33MG	0.33	7.0	6.5	7.8	7.5	11.0	13.2
TMIM252012A-R47MG	0.47	6.2	5.6	6.2	5.6	15.0	18.0
TMIM252012A-R68MG	0.68	5.3	4.9	5.5	5.0	23.0	27.6
TMIM252012A-1R0MG	1.00	4.5	4.2	5.0	4.2	33.0	39.6
TMIM252012A-1R5MG	1.50	3.7	3.4	4.0	3.5	43.0	51.6
TMIM252012A-2R2MG	2.20	3.1	2.8	3.4	3.1	66.0	79.2

Note:

1. Test frequency : Ls : 100KHz /1.0V.
2. All test data referenced to 25℃ ambient.
3. Testing Instrument(or equ) : Agilent 4284A,E4991A,4339B,KEYSIGHT E4980A/AL,chroma3302,3250,16502.
4. Heat Rated Current (Irms) will cause the coil temperature rise approximately ΔT of 40℃
5. Saturation Current (Isat) will cause L0 to drop approximately 30%.
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. Irms Testing : Temperature rise is highly dependent on many factors including pcb land pattern, trace size, and proximity to other components. Therefore temperature rise should be verified in application conditions.
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6. Typical Performance Curves