

# SMD Power Inductor

TMIM322520A-Series(G)

## 1. Features

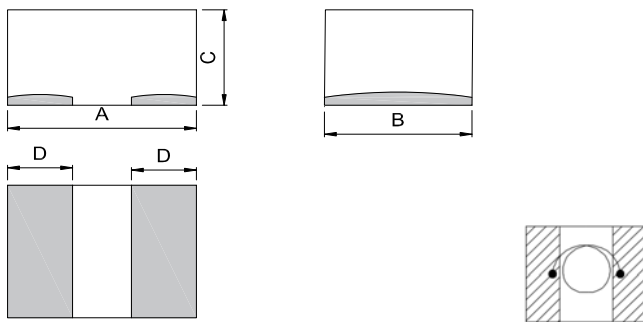
1. Soft saturation.
2. High current · low DCR · high efficiency.
3. Very low acoustic noise and very low leakage flux noise.
4. High reliability.
5. 100% Lead(Pb)-Free and RoHS compliant.
6. Operating temperature: -40~+125°C (Including self-temperature rise)



## 2. Applications

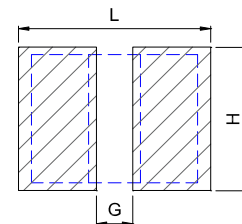
1. DC/DC converte.
2. HDD, SSD and PC peripheral devices.
3. DSC, camcorders · PND · VRM for server.
4. Thin type on-board power supply module for exchanger.
5. Smartphones, tablets and wearable devices · HDDs, DVCs, DSCs,

## 3. Dimensions



Series	A(mm)	B(mm)	C(mm)	D(mm)
TMIM322520A	3.2±0.3	2.5±0.3	1.8±0.2	1.1±0.3

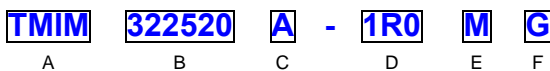
### Recommend PC Board Pattern



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



- 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		
TMIM322520A-R33MG	0.33	8.5	8.0	11.0	10.0	8.0	9.6
TMIM322520A-R47MG	0.47	8.0	7.5	9.0	8.0	9.3	11.2
TMIM322520A-R68MG	0.68	7.0	6.4	8.0	7.0	13.3	16.0
TMIM322520A-1R0MG	1.00	6.2	5.8	7.5	6.2	18.3	22.0
TMIM322520A-1R5MG	1.50	5.3	4.8	6.0	5.0	25.8	31.0
TMIM322520A-2R2MG	2.20	3.7	3.2	5.0	4.5	38.0	46.0
TMIM322520A-3R3MG	3.30	3.2	2.7	4.2	3.7	56.0	65.0
TMIM322520A-4R7MG	4.70	2.8	2.4	3.4	2.9	90.0	98.0

Note:

1. Test frequency : Ls : 100KHz /1.0V.
2. All test data referenced to 25°C 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°C
5. Saturation Current (Isat) will cause L0 to drop approximately 30%.
6. The part temperature (ambient + temp rise) should not exceed 125°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. 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 which is Irms or Isat
9. Absolute maximum voltage 25V DC Buck

## 6. Typical Performance Curves

