

# SMD Power Inductor

TMPV1265SPV-Series(N)-D

## 1. Features

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



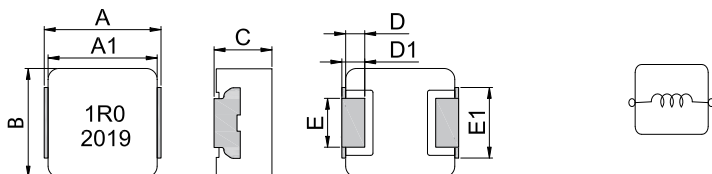
AEC-Q200



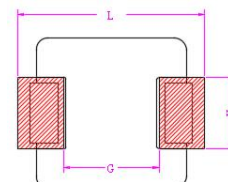
## 2. Applications

Automotive applications.

## 3. Dimensions



## Recommend PCB Board Pattern



Series	A(mm)	A1(mm)	B(mm)	C(mm)	D(mm)	D1(mm)	E(mm)	E1(mm)
TMPV1265SPV	13.6±0.4	12.6±0.3	12.6±0.2	6.2±0.3	2.0±0.3	2.5±0.3	5.0±0.3	9.2±0.3

L(mm)	G(mm)	H(mm)
15.0	8.0	6.0

Note: 1.PCB layout is referred to standard IPC-7351B  
 2. The above PCB layout reference only.  
 3. Recommend solder paste thickness at 0.15mm and above.

## 4. Part Numbering



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

BxC  
 Standard.  
 1R0=1.0uH  
 K=±10%, L=±15%, M=±20%, N=±25%, Y=±30%  
 Marking direction cannot decide polarity.  
 Marking: Black.1R0 and 2019 (20:YY,19:WW, follow production date).

## 5. Specification

Part Number	Inductance L0 A( $\mu$ H) $\pm 20\%$	Heat Rating Current DC ※ Irms( A )	Saturation Current DC I sat ( A )	DCR ( $m\Omega$ ) Typ	DCR ( $m\Omega$ ) Max
TMPV1265SPV-R68MN-D	0.68	36.5	36.5	1.35	1.62
TMPV1265SPV-1R0MN-D	1.00	32.0	32.0	1.75	2.10
TMPV1265SPV-1R5MN-D	1.50	27.0	29.0	2.30	2.76
TMPV1265SPV-2R2MN-D	2.20	23.0	26.0	3.6	4.2
TMPV1265SPV-3R3MN-D	3.30	19.0	24.0	5.9	6.8
TMPV1265SPV-4R7MN-D	4.70	17.0	20.0	7.3	8.4
TMPV1265SPV-5R6MN-D	5.60	15.0	18.0	9.1	10.0
TMPV1265SPV-6R8MN-D	6.80	14.0	17.0	9.7	11.2
TMPV1265SPV-8R2MN-D	8.20	13.0	16.0	11.8	13.6
TMPV1265SPV-100MN-D	10.0	12.0	13.5	14.3	16.5
TMPV1265SPV-150MN-D	15.0	9.0	10.0	23.6	27.2
TMPV1265SPV-220MN-D	22.0	7.5	8.0	34.1	39.2
TMPV1265SPV-330MN-D	33.0	6.3	7.2	53.0	61.0
TMPV1265SPV-470MN-D	47.0	5.2	6.0	74.1	89.0

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  $\Delta T$  of 40°C
5. Saturation Current (Isat) will cause L0 to drop approximately 30%.
6. The part temperature (ambient + temp rise) should not exceed 165°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.

### 6. Typical Performance Curves

