General Components Industry Corporation

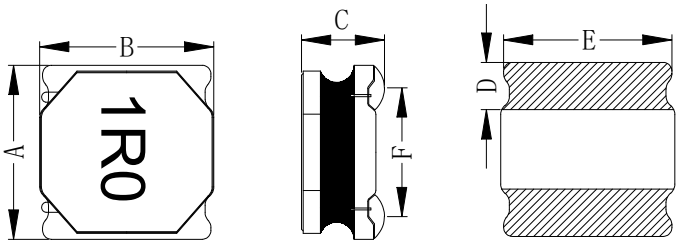
Sealed Power Inductor

GPC6020NF-SERIES

1. Features

1. This specification applies Low Profile Power Inductors.
2. 100% Lead(Pb) & Halogen-Free and RoHS compliant.
3. Operating temperature :-40~+125℃ (Including self - temperature rise).

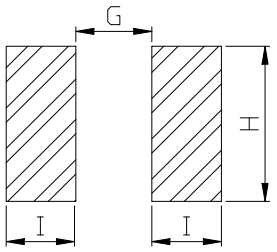
2. Dimension



Series	*A(mm)	*B(mm)	*C(mm)	D(mm)	E(mm)	F(mm)
GPC6020NF	6.0±0.2	6.0±0.2	1.8±0.2	1.6±0.3	5.8±0.3	4.3ref

*Dimensions are not including the termination. For maximum overall dimensions with ternmination , add 0.1mm.

Recommendend Land pattern



G(mm)	H(mm)	I(mm)
2.5	5.8	1.8

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

3. Part Numbering

GPC	6020	NF	-	1R0	Y
A	B	C		D	E

A: Series	
B: Dimension	A/B*C
C: Type	
D: Inductance	1R0=1.00uH,100=10uH,101=100uH,102=1000uH
E: Inductance Tolerance	K=±10%, L=±15%,M=±20%,Y=±30%.
	marking direction cannot decide polarity. Color: Black, unidirectional.
	magnetic shielding

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4. Specification

Part Number	Inductance L0 (uH) @ 0 A	Tolerance				Rated current		DCR (mΩ) @25℃ ±20%.
		K	L	M	Y	Tempetature current I rms (A)	Saturation current I sat (A)	
GPC6020NF-R80	0.80	/	/	±20%	±30%	5.5	7.5	16
GPC6020NF-1R0	1.00	/	/	±20%	±30%	4.5	6.2	19
GPC6020NF-1R5	1.50	/	/	±20%	±30%	3.8	5.5	22.5
GPC6020NF-2R0	2.00	/	/	±20%	±30%	3.65	5.3	25
GPC6020NF-2R2	2.20	/	/	±20%	±30%	3.5	5.0	29
GPC6020NF-3R3	3.30	/	/	±20%	±30%	3.3	4.0	35
GPC6020NF-4R7	4.70	/	±15%	±20%	±30%	2.8	3.0	54
GPC6020NF-5R6	5.60	/	±15%	±20%	±30%	2.6	2.7	59
GPC6020NF-6R8	6.80	/	±15%	±20%	±30%	2.5	2.6	78
GPC6020NF-8R2	8.20	/	±15%	±20%	±30%	2.3	2.4	103
GPC6020NF-100	10.0	±10%	±15%	±20%	±30%	2.1	2.1	106
GPC6020NF-150	15.0	±10%	±15%	±20%	±30%	1.6	1.5	138
GPC6020NF-220	22.0	±10%	±15%	±20%	±30%	1.4	1.3	204
GPC6020NF-330	33.0	±10%	±15%	±20%	±30%	1.3	1.2	340

Note:

1. All test data referenced to 25℃ ambient , Ls:100KHz/1V.
2. Testing Instrument : HP4284A,CH11025,CH3302,CH1320 ,CH1320S LCR METER / Rdc:CH502BC MICRO OHMMETER.
3. Heat Rated Current (Irms) will cause the coil temperature rise approximately △t of 40℃.
4. Saturation Current (Isat) will cause L0 to drop approximately 30%.
5. Rated DC Current： The less value whith is Irms or Isat.
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.

5. Typical Performance Curves