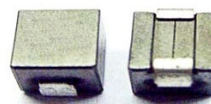
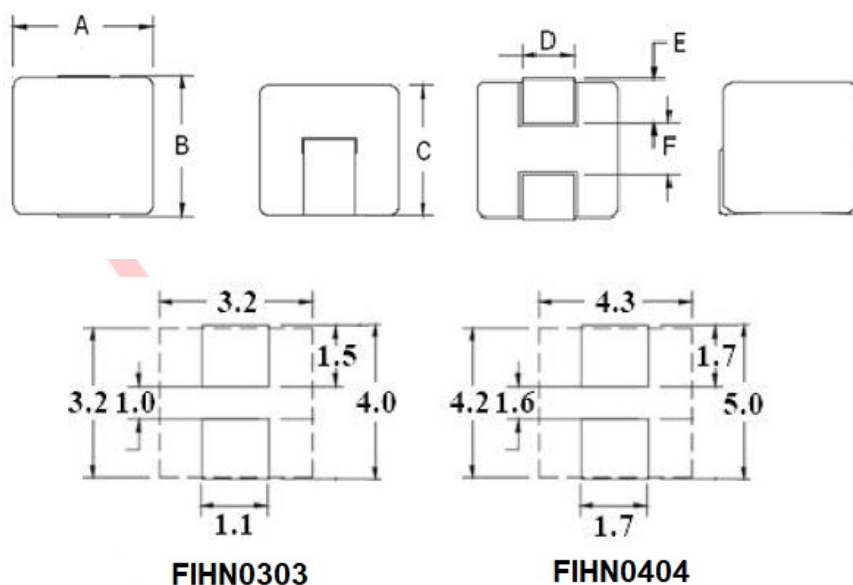


## SMD POWER INDUCTOR



<b>FEATURES</b>	<ul style="list-style-type: none"> <li>Compliance with RoHs.</li> <li>Magnetically shielded, low EMI.</li> <li>High current carrying capacity, Low core losses.</li> <li>Frequency range up to 2MHz.</li> <li>Special core grooving design has stable characteristics.</li> </ul>																								
<b>APPLICATIONS</b>	<ul style="list-style-type: none"> <li>DC/DC converter for CPU in Notebook PC.</li> <li>Server and desktop VRMs and EVRDs.</li> <li>Thin type on-board power supply module.</li> <li>Data networking and storage systems.</li> <li>Graphics cards and battery power systems.</li> </ul>																								
<b>PRODUCT IDENTIFICATION</b>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;"><b>FIHN</b></td> <td style="text-align: center;"><b>030327</b></td> <td style="text-align: center;">-</td> <td style="text-align: center;"><b>N22</b></td> <td style="text-align: center;"><b>M</b></td> <td>(1) PRODUCT NAME</td> </tr> <tr> <td style="text-align: center;">(1)</td> <td style="text-align: center;">(2)</td> <td></td> <td style="text-align: center;">(3)</td> <td style="text-align: center;">(4)</td> <td>(2) DIMENSION</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>(3) INDUCTANCE</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>(4) TOLERANCE</td> </tr> </table>	<b>FIHN</b>	<b>030327</b>	-	<b>N22</b>	<b>M</b>	(1) PRODUCT NAME	(1)	(2)		(3)	(4)	(2) DIMENSION						(3) INDUCTANCE						(4) TOLERANCE
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### CONFIGURATIONS & DIMENSIONS (unit in mm)



Type	A	B	C	D	E	F	a (Ref)	b (Ref)	c (Ref)
FIHN030327	2.9±0.1	3.5±0.1	2.7±0.1	0.8±0.15	1.2±0.2	0.9±0.3	4.0	1.3	0.6
FIHN040428	3.9±0.1	4.5±0.1	2.8±0.1	1.4±0.15	1.3±0.2	1.9±0.3	5.0	1.8	1.5
FIHN040432	3.9±0.1	4.5±0.1	3.2±0.1	1.4±0.15	1.3±0.2	1.9±0.3	5.0	1.8	1.5

## Specification

ELECTRICAL CHARACTERISTICS FOR FIHN030327 SERIES								
Part Number	OCL (nH)	FLL (nH)MIN	I <sub>rms</sub> (amps)	I <sub>sat1</sub> (amps)	I <sub>sat2</sub> (amps)	I <sub>sat3</sub> (amps)	DCR @20°C ±25%(mΩ)	K-factor
FIHN030327-N22M	22.0±20%	15	10	25	20	19	0.45	3580
FIHN030327-N33L	33.0±15%	23	10	23	19	17	0.45	3580
FIHN030327-N47L	47.0±15%	32	10	20	17	15	0.45	3580
FIHN030327-N65L	65.0±15%	45	10	15	13	12	0.45	3580

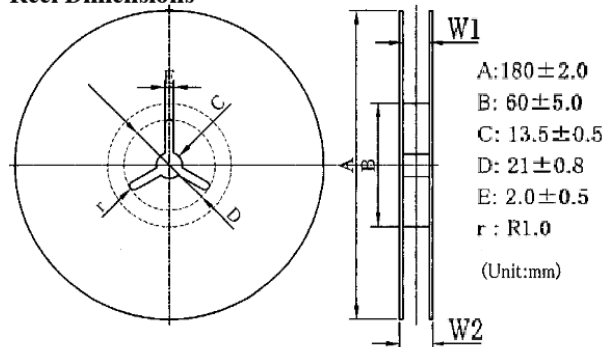
ELECTRICAL CHARACTERISTICS FOR FIHN0404 SERIES								
Part Number	OCL (nH)	FLL (nH)MIN	I <sub>rms</sub> (amps)	I <sub>sat1</sub> (amps)	I <sub>sat2</sub> (amps)	I <sub>sat3</sub> (amps)	DCR @20°C ±25%(mΩ)	K-factor
FIHN040428-N22M	22.0±20%	15	19	40	34	32	0.32	2351
FIHN040432-N65L	65.0±15%	44	19	24	22	20	0.32	2248
FIHN040432-N80L	80.0±15%	54	19	20	18	16	0.32	2248
FIHN040432-N100L	100±15%	68	19	16	14	13	0.32	2248

### Note:

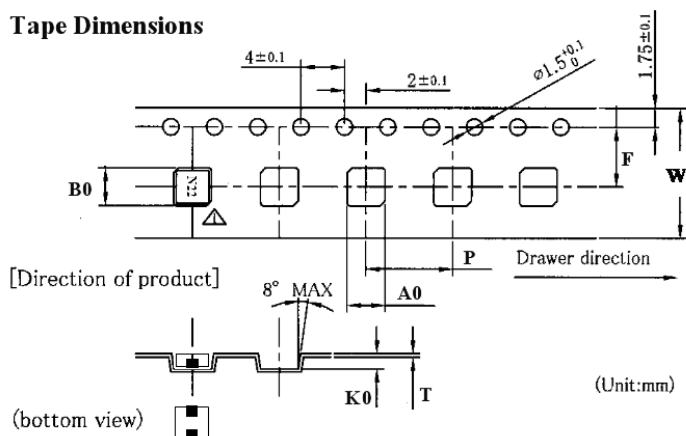
- (1) Open Circuit Inductance (OCL) Test Parameters: 100kHz (1MHz for R022), 0.1V<sub>rms</sub>, 0.0A<sub>dc</sub>, 25°C.
- (2) Full Load Inductance (FLL) Test Parameters: 100kHz (1MHz for R022), 0.1V<sub>rms</sub>, I<sub>sat1</sub>, 25°C.
- (3) I<sub>rms</sub>: DC current for an approximate temperature rise of 40°C without core loss. Derating is necessary for AC currents. PCB layout, trace thickness and width, air-flow, and proximity of other heat generating components will affect the temperature rise. It is recommended that the temperature of the part not exceed 125°C underworst case operating conditions verified in the end application.
- (4) I<sub>sat1</sub> : Peak current for approximately 20% rolloff @ +25°C.
- (5) I<sub>sat2</sub> : Peak current for approximately 20% rolloff @ +100°C.
- (6) I<sub>sat3</sub> : Peak current for approximately 20% rolloff @ +125°C
- (7) K-factor: Used to determine B<sub>p-p</sub> for core loss (see graph).  $B_{p-p} = K * L * \Delta I * 10^{-3}$ . B<sub>p-p</sub>:(Gauss),  
K:(K-factor from table), L: (Inductance in nH),  $\Delta I$  (Peak to peak ripple current in Amps).

## Taping Dimension for FPD series

Reel Dimensions

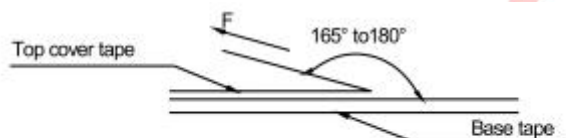


Tape Dimensions



Type	W1	W2	W	A0	B0	K0	P	F	T	Q'TY (PCS)
FIHN030327	$12.8 \pm 0.5$	$17.0 \pm 0.5$	$12.0 \pm 0.3$	$3.30 \pm 0.1$	$3.8 \pm 0.1$	$3.30 \pm 0.1$	$8.0 \pm 0.1$	$5.5 \pm 0.1$	$0.3 \pm 0.05$	2000
FIHN040428	$12.8 \pm 0.5$	$17.0 \pm 0.5$	$12.0 \pm 0.3$	$4.40 \pm 0.1$	$5.0 \pm 0.1$	$3.50 \pm 0.1$	$8.0 \pm 0.1$	$5.5 \pm 0.1$	$0.3 \pm 0.05$	2000
FIHN040432	$12.8 \pm 0.5$	$17.0 \pm 0.5$	$12.0 \pm 0.3$	$4.40 \pm 0.1$	$5.0 \pm 0.1$	$3.50 \pm 0.1$	$8.0 \pm 0.1$	$5.5 \pm 0.1$	$0.3 \pm 0.05$	2000

### ● Tearing Off Force



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

The force tearing off cover 10 to 130 grams (0.1N to 1.3N) in the arrow direction under the following conditions.

### ● Storage conditions/Note things

(1) Storage temperature and humidity conditions :

1. Product packing with Carrier tape:  $+5^{\circ}\text{C} \sim +40^{\circ}\text{C}$  and less than 60% RH.
2. Product alone:  $-20^{\circ}\text{C} \sim +60^{\circ}\text{C}$  and less than 60% RH.

(2) Products should be used within 6 months.

(3) The packaging material should be kept where no chlorine or sulfur exists in the air.

(4) Do not touch the electrodes (soldering terminals) with fingers as this may lead to deterioration of solder ability.

(5) The use of tweezers or vacuum pick-ups is strongly recommended for individual components.

(6) Bulk handling should ensure that abrasion and mechanical shock are minimized