

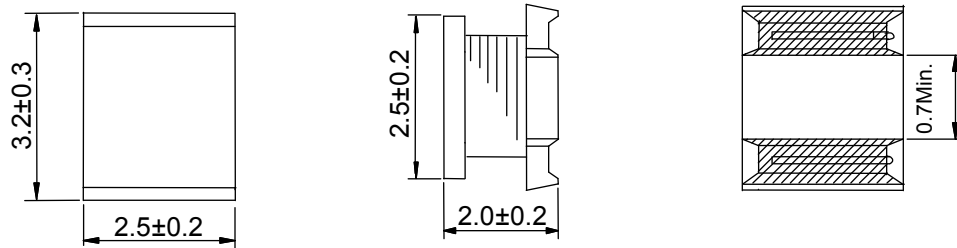


SMD POWER INDUCTORS

TYPE	FDA32NP
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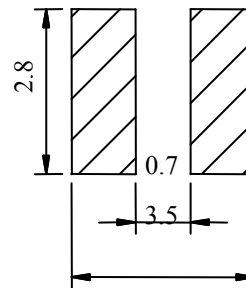
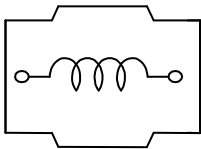
SPECIFICATIONS

1. DIMENSION (UNIT: mm)

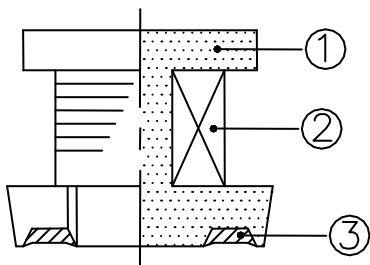


▨ INDICATES ELECTRODE

2. CONNECTION (BOTTOM) 3. RECOMMENDED LAND PATTERN (UNIT: mm)



4. CONSTRUCTION



MATERIAL LIST

No.	NAME	MATERIAL
1	DRUM CORE	FERRITE CORE OR EQUIVALENT
2	WIRE	POLYURETHANE ENAMELLED COPPER WIRE
3	ELECTRODE	Ag-Ni PLATING + SOLDER



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5. ELECTRICAL CHARACTERISTICS

No.	PART No.	INDUCTANCE WITHIN		D.C.R. (Ω) Max.	RATED CURRENT (A)		S.R.F. (MHz) (Min.)
		L(μH)	TOLERANCE		Idc1(Max.)	Idc2(Max.)	
01	FDA32NP-R27□	0.27	M	0.025	3.50	2.90	280
02	FDA32NP-R75□	0.75		0.050	2.00	1.80	130
03	FDA32NP-1R0□	1.0		0.060	1.70	1.80	120
04	FDA32NP-1R5□	1.5		0.085	1.40	1.45	100
05	FDA32NP-1R8□	1.8		0.09	1.30	1.45	90
06	FDA32NP-2R2□	2.2		0.11	1.20	1.30	70
07	FDA32NP-2R7□	2.7		0.12	1.10	1.20	65
08	FDA32NP-3R3□	3.3		0.14	0.95	1.10	60
09	FDA32NP-3R9□	3.9		0.18	0.90	1.00	55
10	FDA32NP-4R7□	4.7		0.20	0.80	0.88	50
11	FDA32NP-5R6□	5.6		0.22	0.75	0.88	43
12	FDA32NP-6R8□	6.8		0.33	0.68	0.65	42
13	FDA32NP-8R2□	8.2		0.35	0.63	0.65	40
14	FDA32NP-100□	10.0		0.50	0.53	0.50	35
15	FDA32NP-150□	15.0	K, M	0.65	0.46	0.46	30
16	FDA32NP-180□	18.0		0.70	0.42	0.44	25
17	FDA32NP-220□	22.0		1.00	0.38	0.40	22
18	FDA32NP-270□	27.0		1.10	0.34	0.38	20
19	FDA32NP-330□	33.0		1.55	0.30	0.32	18
20	FDA32NP-390□	39.0		1.75	0.29	0.30	17
21	FDA32NP-470□	47.0		2.40	0.25	0.24	14
22	FDA32NP-560□	56.0		2.50	0.24	0.23	13
23	FDA32NP-680□	68.0		3.10	0.22	0.22	12
24	FDA32NP-820□	82.0		3.50	0.16	0.22	11
25	FDA32NP-101□	100.0	K	5.00	0.15	0.15	11
26	FDA32NP-121□	120.0		5.50	0.13	0.14	9
27	FDA32NP-151□	150.0		6.50	0.12	0.14	8
28	FDA32NP-181□	180.0		9.00	0.11	0.11	7
29	FDA32NP-221□	220.0		10.0	0.11	0.11	6

* □: K: ±10%; M: ±20%

* TESTING INSTRUMENT

INDUCTANCE: HP 4284A OR EQUIVALENT. 0.27uH ~ 82 uH at 1MHz / 1.0V; 100uH ~ 220uH at 100KHz / 1.0V.

D.C.R: HP-34420A OR EQUIVALENT (Ta= 20°C). SRF: HP 4291B OR EQUIVALENT.

RATED CURRENT: HP 4284A & HP 42841A; HP E3632A & HP 34401A OR EQUIVALENT.

* TESTING CONDITION

* Idc1: THE CURRENT WHEN THE INDUCTANCE DECREASES TO 90% OF INITIAL VALUE (Ta=25°C).



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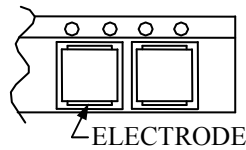
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- * I_{dc2}: THE CURRENT WHEN THE TEMPERATURE OF COIL IS INCREASED BY 40°C (T_a=25°C).
- * THE RATED CURRENT INDICATES THE SMALLER ONE BETWEEN I_{dc1} AND I_{dc2}.

6. REMARK

- * ENCLOSING CONDITION OF COILS.



- * CARRIER TAPE PACKING SPECIFICATION IN DETAIL KB-CTR042.

7. GENERAL CHARACTERISTICS

- * STANDARD TESTING CONDITIONS:

UNLESS OTHERWISE SPECIFIED, THE STANDARD RANGE OF ATMOSPHERIC CONDITIONS FOR MEASUREMENTS AND TESTS ARE AS FOLLOWS:

AMBIENT TEMPERATURE: 15°C ~ 35°C.

RELATIVE HUMIDITY: 25% ~ 85%. AIR PRESSURE: 86kPa ~ 106kPa.

IF THERE IS ANY DOUBT ABOUT THE RESULTS, MEASUREMENT SHALL BE MADE WITHIN THE FOLLOWING LIMITS:

AMBIENT TEMPERATURE: 20°C ± 1°C.

RELATIVE HUMIDITY: 63% ~ 67%.

AIR PRESSURE: 86kPa ~ 106kPa.



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No.	ITEMS	CONDITIONS	SPECIFICATION
1	OPERATION TEMPERATURE		-25 ~ +85°C (INCLUDING COIL TEMPERATURE RISE DUE TO SELF-GENERATED HEAT)
2	STORAGE TEMPERATURE		-40 ~ +85°C
3	TEMPERATURE COEFFICIENT	-40 ~ +85°C	0 ~ 2000 ppm/°C
4	FIXING STRENGTH	SAMPLE IS PUSHED IN THREE DIRECTIONS OF X, Y AND Z WITH FORCE OF 10N FOR 60±5 SECONDS AFTER SOLDERING BETWEEN COPPER PLATE AND ELECTRODES.	NO ELECTRODE DETACHMENT.
5	RESISTANCE TO SOLDERING HEAT TEST	PLEASE REFER TO THE ATTACHMENT STD-002.	NO MECHANICAL BREAKAGE. DEVIATION RELATIVE TO INITIAL VALUE: L: WITHIN ±5.0%
6	SOLDER ABILITY TEST	IMMERSE THE ELECTRODE IN FLUX FOR 5 SECONDS. THEN DIP THE ELECTRODE INTO A SOLDERING BATH OF 245±5°C FOR 2±0.5 SECONDS.	OVER 90% OF THE SURFACE BEING IMMersed SHALL BE COVERED WITH NEW SOLDER UNIFORMLY.
7	VIBRATION TEST	AMPLITUDE: 1.5mm P-P FREQUENCY: 10 ~ 55 ~ 10Hz (1 MINUTE PER CYCLE) DURATION: 2 HOURS IN EACH OF X, Y, Z AXIS. (TOTAL 6 HOURS)	DEVIATION RELATIVE TO INITIAL VALUE: L: WITHIN ±2.0%
8	SHOCK TEST	PEAK ACCELERATION: 981m/s ² DURATION OF PULSE: 10ms SHOCK TIMES: 3 TIMES IN EACH OF X, Y, Z AXIS. (TOTAL 9 TIMES)	DEVIATION RELATIVE TO INITIAL VALUE: L: WITHIN ±5.0%
9	HUMIDITY TEST	TEMPERATURE: 40°C±2°C HUMIDITY: 90% ~ 95%RH DURATION: 96±4 HOURS.	DEVIATION RELATIVE TO INITIAL VALUE: L: WITHIN ±5.0%