

SURFACE-MOUNT POWER WOUND CHIP INDUCTORS

FASPI-0603 SERIES



FEATURES :

Current up to 1.34A
 High Frequency design
 Heat Resistant Molded Resin
 Excellent Mechanical Strength
 Excellent Solderability
 Low Profile, Low cost
 Low DCR

OPTIONS:

Tape & Reel is Standard
 [Qty:2000pcs]
 Bulk packaging Available
 for Smaller Quantities
 Tolerance : K=10%,M=20% is
 Standard, Tighter Tolerances Available

COMMON APPLICATIONS:

Power supply for VTRs
 DA equipment
 LCD televisions
 Notebook Pcs
 Portable communication equipment
 DC/DC converters, etc

ELECTRICAL CHARACTERISTICS:

Part Number	L [μH]	Tol %	Q Min	DCR ohm Max	IDC Max A	Test Freq kHz
FASPI-0603T-1R0K	1.0	±10	35	0.072	1.34	100
FASPI-0603T-1R5K	1.5	±10	35	0.084	1.22	100
FASPI-0603T-2R2K	2.2	±10	35	0.108	1.08	100
FASPI-0603T-3R3K	3.3	±10	35	0.134	0.97	100
FASPI-0603T-4R7K	4.7	±10	40	0.160	0.91	100
FASPI-0603T-6R8K	6.8	±10	40	0.197	0.79	100
FASPI-0603T-100K	10.0	±10	40	0.330	0.63	100
FASPI-0603T-120K	12.0	±10	40	0.350	0.59	100
FASPI-0603T-150K	15.0	±10	40	0.400	0.56	100
FASPI-0603T-180K	18.0	±10	40	0.450	0.51	100
FASPI-0603T-220K	22.0	±10	40	0.534	0.47	100
FASPI-0603T-270K	27.0	±10	40	0.618	0.43	100
FASPI-0603T-330K	33.0	±10	50	0.903	0.37	100
FASPI-0603T-390K	39.0	±10	50	1.010	0.4	100
FASPI-0603T-470K	47.0	±10	50	1.355	0.29	100
FASPI-0603T-560K	56.0	±10	50	1.515	0.28	100
FASPI-0603T-680K	68.0	±10	50	1.713	0.26	100
FASPI-0603T-820K	82.0	±10	50	2.312	0.22	100
FASPI-0603T-101K	100.0	±10	50	2.640	0.21	100
FASPI-0603T-121K	120.0	±10	50	3.502	0.19	100
FASPI-0603T-151K	150.0	±10	50	4.132	0.17	100
FASPI-0603T-181K	180.0	±10	50	4.534	0.16	100
FASPI-0603T-221K	220.0	±10	50	6.646	0.13	100
FASPI-0603T-271K	270.0	±10	50	7.523	0.12	100
FASPI-0603S-101M	100	±20	30	0.65	32.0mA	100
FASPI-0603S-151M	150	±20	35	0.80	28.0mA	100
FASPI-0603S-221M	220	±20	35	1.10	22.0mA	100
FASPI-0603S-331M	330	±20	35	1.30	16.0mA	100
FASPI-0603S-471M	470	±20	35	1.90	14.0mA	100
FASPI-0603S-681M	680	±20	35	2.50	11.0mA	100
FASPI-0603S-102M	1000	±20	35	3.10	9.0mA	100
FASPI-0603S-152M	1500	±20	35	5.30	8.0mA	100
FASPI-0603S-222M	2200	±20	35	8.40	7.0mA	100
FASPI-0603S-332M	3300	±20	35	10.10	5.0mA	100
FASPI-0603S-472M	4700	±20	35	13.0	4.0mA	100

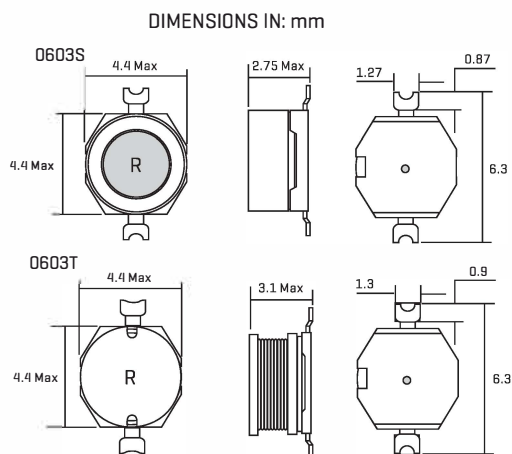
Note:1. K=±10%,M=±20%,N=±30%

TECHNICAL INFORMATION:

- Testing: [Equivalent acceptable]
- Inductance:HP4284A
- RDC:QuadTech 1880
- Milliohmeter -Q- HP4342A - SRF-HP4191A
- IOC Max:Determined when superimposed
- DC current is decreased 10% against its initial value
- Operating temperature: -40°C to +105°C
- Storage Temperature: -40°C to +105°C
- Solder methods: Vapor Phase,Infrared Reflow
- Resistance to soldering heat:260°C for 10 seconds
- Solvent resistance: Conforms to MIL-STD-202E
- Marking: Inductance & Tolerance

Note:All specifications subject to change without notice.

PHYSICAL CHARACTERISTICS:



SURFACE-MOUNT POWER WOUND CHIP INDUCTORS FASPI-T SERIES 0402T,0802T,0804T,0810T,1109T,1306T



FEATURES :

Very Small Foot Print
Flat-top for Pick & Place
Increased Size Selection Guide

OPTIONS:

Tape & Reel is Standard
[Qty:2000pcs]
Bulk packaging Available
for Smaller Quantities
Tolerance: 20% is Standard
Custom Design Available

COMMON APPLICATIONS:

Ideal for Palm-Top and Laptop
DC to DC converters
PDA's flash memory
Step-up,step down Converters

STANDARD SPECIFICATION:

Part Number	L[μH] ±20	DCR[ohm]Max						IDC[A]Max					
		FASPI 0402T	FASPI 0802T	FASPI 0804T	FASPI 0810T	FASPI 1109T	FASPI 1306T	FASPI 0402T	FASPI 0802T	FASPI 0804T	FASPI 0810T	FASPI 1109T	FASPI 1306T
1R0	1.0	0.05		0.009			0.011	2.90		9.0			20.00
1R5	1.5	0.05		0.010				2.60		8.0			
2R2	2.2	0.06		0.012			0.014	2.30		7.0			16.00
3R3	3.3	0.07		0.015			0.016	2.00		6.4			14.00
4R7	4.7	0.08		0.018				1.50		5.4			
5R6	5.6			0.025			0.022			5.0			12.00
6R8	6.8	0.11		0.027				1.20		4.6			
100	10	0.14	0.09	0.038	0.033	0.06	0.032	1.10	2.40	3.8	8.00	3.50	10.00
120	12					0.07							3.40
150	15	0.20	0.12	0.046	0.042	0.08	0.036	0.90	2.00	3.0	7.00	3.10	8.00
180	18					0.09							3.00
220	22	0.32	0.19	0.085	0.054	0.10	0.047	0.70	1.60	2.6	5.50	2.60	7.00
270	27					0.11							2.40
330	33	0.44	0.25	0.10	0.08	0.12	0.066	0.58	1.40	2.0	4.00	2.30	5.50
390	39					0.14							2.10
470	47	0.56	0.32	0.14	0.10	0.17	0.087	0.50	1.00	1.6	3.80	1.95	4.50
560	56					0.19							1.85
680	68	0.75	0.55	0.20	0.17	0.22	0.13	0.40	0.90	1.4	3.00	1.65	3.50
820	82					0.25							1.50
101	100	1.10	0.70	0.28	0.22	0.35	0.19	0.31	0.70	1.2	2.50	1.40	3.00
121	120					0.40							1.30
151	150	1.70	1.00	0.40	0.34	0.47	0.25	0.27	0.60	1.0	2.00	1.20	2.60
181	180					0.63							1.00
221	220	2.30	1.60	0.61	0.44	0.73	0.38	0.22	0.50	0.8	1.60	0.95	2.40
271	270					0.97							0.90
331	330	3.30	2.20	1.02	0.70	1.15	0.56	0.18	0.40	0.6	1.20	0.80	1.90
391	390					1.30							0.75
471	470	4.40	3.30	1.27	0.95	1.48	0.85	0.16	0.30	0.5	1.00	0.65	1.40
561	560					1.90							0.60
681	680	6.80	4.40	2.02	1.20	2.45	1.2	0.14	0.20	0.4	1.00	0.50	1.20
821	820					2.55							0.48
102	1000	12.00	7.00	3.00	2.00	3.00	1.8	0.10	0.10	0.3	0.80	0.46	1.00
122	1200					3.50							0.35

TECHNICAL INFORMATION:

- measuring Frequency[L]:1KHz,0.1Vrms,HP4284A
- Operating Temperature:-40°C to+85°C
- Storage Temperature: -40°C to +105°C
- Solder methods: Vapor Phase,Infrared Reflow
- Resistance to soldering heat:260°C for 10 seconds
- Solvent resistance: Conforms to MIL-STD-202E
- Marking: Inductance & Tolerance

PHYSICAL CHARACTERISTICS

Outline drawings
refer to next Page

Note: All specifications subject to change without notice.

SURFACE-MOUNT POWER INDUCTORS FASPI-T SERIES 0402T,0802T,0804T,0810T,1109T,1306T



FEATURES:

Very Small Foot Print
Flat-top for Pick & Place
Increased Size Selection
Guide

OPTIONS:

Tape & Reel is Standard
Bulk Packaging Available
for Smaller Quantities
Tolerance:20% is Standard
Custom Design Available

COMMON APPLICATIONS:

Ideal for Palm-Top and Laptop
DC to DC converters
PDA's flash memory
Step-up,step-down Converters

PHYSICAL CHARACTERISTICS Dimensions:(Inch)

Part Numbers	PHYSICAL CHARACTERISTICS
FASPI-1306T-XXX	
FASPI-0402T-XXX	
FASPI-0802T-XXX	
FASPI-0804T-XXX	
FASPI-0810T-XXX	
FASPI-1109T-XXX	

Tolerance:X.XX=±0.030.X.XXX=±0.0

SHIELDED SURFACE-MOUNT POWER INDUCTORS FASPI-T SERIES 0402,0802,0804,1306



FEATURES:

Current up to 8
Very Small Foot Print
Flat-top for Pick & Place

OPTIONS:

Tape & Reel is Standard
Bulk Packaging Available
for Smaller Quantities
Tolerance:10% and 20%
is Standard
Custom Design Available

COMMON APPLICATIONS:

Ideal for Palm-Top and Lapto
DC-DC Converters
PDA's Flash Memory
Step-up, Step-down Converter

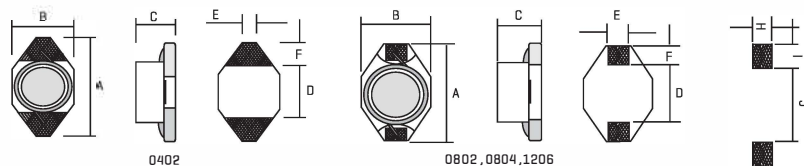
ELECTRICAL CHARACTERISTICS

Part Number	L[μH] ±20%	DCR[Ω]				IDC[A]M			
		FASPI 0402S	FASPI 0802S	FASPI 0804S	FASPI 1306S	FASPI 0402S	FASPI 0802S	FASPI 0804S	FASPI 1306S
1R0	1.0	0.040		0.021		3.0		5.0	
1R5	1.5	0.045	0.038	0.022		2.8	4.00	4.5	
2R2	2.2	0.050	0.045	0.032		1.8	3.50	3.8	
3R3	3.3	0.055	0.062	0.039		1.6	3.00	3.3	
4R7	4.7	0.060	0.78	0.054		1.4	2.50	2.7	
6R8	6.8	0.065	0.10	0.075		1.2	2.20	2.2	
100	10	0.075	0.145	0.101	0.040	1.0	2.00	2.0	3.9
150	15	0.090	0.20	0.150	0.048	0.80	1.50	1.5	3.4
220	22	0.11	0.30	0.207	0.059	0.70	1.30	1.3	3.1
330	33	0.19	0.45	0.334	0.075	0.60	1.10	1.1	2.8
470	47	0.23	0.65	0.472	0.097	0.50	0.80	0.80	2.4
680	68	0.29	0.80		0.138	0.40	0.70		2.0
101	100	0.48	1.40		0.207	0.30	0.60		1.7
151	150	0.59	1.80		0.293	0.26	0.50		1.3
221	220	0.90	2.20		0.470	0.22	0.40		1.1
331	330	1.40	3.60		0.780	0.20	0.30		0.86
471	470	1.80	5.10		1.08	0.19	0.20		0.73
681	680	2.20			1.40	0.18			0.64
102	100	3.40			2.01	0.15			0.53
152	1500	4.20				0.12			
222	2200	8.50				0.10			
332	3300	11.0				0.08			
472	4700	13.9				0.06			
682	6800	25.0				0.04			
103	10000	32.8				0.02			

TECHNICAL INFORMATION:

Testing: [Equivalent acceptable]
Inductance: HP4285A
RDC: QuadTech 1880 Milliohm meter
-Q-HP4342A - SRF - HP4191A
IDC Max: Determined when superimposed
DC current is decreased 10% against its initial value
Operating Temperature: -40°C to +85°C
Storage Temperature: -40°C to +105°C
Solder methods: Vapor Phase, Infrared Reflow
Resistance to soldering heat: 260°C for 10 seconds
Solvent resistance: Conforms to MIL-STD-202E
Marking: Inductance & Tolerance
Note: All specifications subject to change without notice.

PHYSICAL CHARACTERISTICS



DIMENSION:[mm]

Part number	A	B	C	D	E	F	H	I	J
FASPI-0402S	6.60	4.45	2.92	4.32	1.27	1.02	3.56	1.4	4.06
FASPI-0802S	12.7	10.1	2.70	7.6	2.2	2.4	2.8	3.0	7.3
FASPI-0804S	12.95	9.40	5.08	7.62	2.54	2.54	2.79	2.92	7.37
FASPI-1306S	18.54	15.24	7.62	12.70	2.54	2.54	2.79	2.92	12.45

SURFACE-MOUNT HIGH CURRENT INDUCTORS

FASPI-HC SERIES

0605HC, 1006HC, 1306HC, 1608HC



FEATURES:

Current up to 50A
 Flat-top for Pick & Place
 Very low DC Resistance
 Low profile

OPTIONS:

Tape & Reel is Standard
 Bulk Packaging Available
 for Smaller Quantities
 Custom Design Available

COMMON APPLICATIONS:

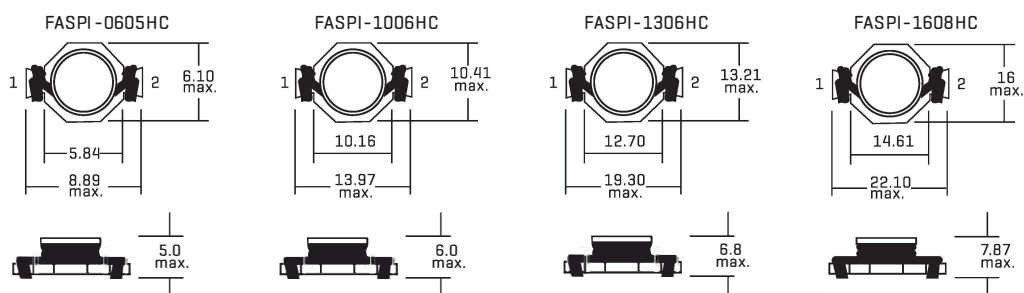
Ideal for High Current, Low Voltage
 DC - DC Converters
 Designed for 3.3V Microprocessor

STANDARD SPECIFICATION:

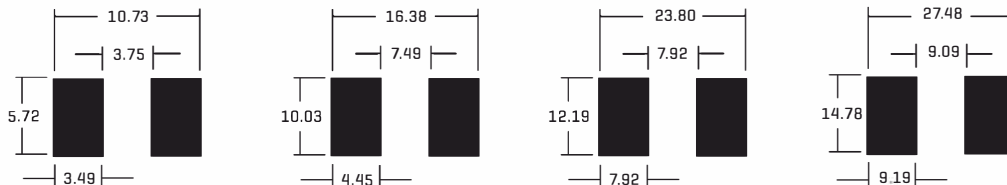
Part Number FASPI-XXX	0605HC				1006HC			1306HC			1608HC		
	L μH[rated]	IRMS A(max)	ISAT A(max)	OCR [Ohm]max	IRMS A(max)	ISAT A(max)	DCR [Ohm]max	IRMS A(max)	ISAT A(max)	DCR [Ohm]max	IRMS A(max)	ISAT A(max)	DCR [Ohm]max
R47	0.47	6.0	7.7	0.0097	10.6	11.4	0.0049	16.0	25.1	0.0021	19.2	51.7	0.0019
1R0	1.0	4.4	5.3	0.0177	9.3	9.9	0.0065	12.5	15.2	0.0034	17.3	37.3	0.0023
1R5	1.5	4.2	4.5	0.0200	8.3	7.9	0.0081	10.0	12.0	0.0053	13.4	28.9	0.0039
2R2	2.2	3.1	3.5	0.0363	7.2	6.1	0.0107	9.2	10.2	0.0074	12.0	23.7	0.0048
3R3	3.3	2.9	3.0	0.0428	6.5	5.1	0.0128	8.0	9.3	0.0083	11.0	20.2	0.0057
4R7	4.7	2.2	2.6	0.0544	5.5	4.2	0.0165	6.5	7.7	0.0114	8.6	15.6	0.0093
6R8	6.8	1.7	2.2	0.0897	5.0	3.6	0.0202	5.8	6.2	0.0183	8.3	14.1	0.0100
100	10.0	1.5	1.9	0.1107	4.3	3.3	0.0267	4.3	5.2	0.0261	6.8	11.5	0.0150
150	15.0	1.2	1.5	0.1747	3.5	2.4	0.0410	3.9	4.3	0.0317	5.5	9.1	0.0230
220	22.0	1.0	1.2	0.2541	2.8	2.0	0.0617	3.1	3.7	0.0491	4.5	7.6	0.0340
330	33.0	0.82	0.99	0.3670	2.1	1.7	0.0917	2.4	3.0	0.0688	3.7	6.1	0.0520
470	47.0	0.72	0.87	0.4740	1.7	1.4	0.1388	1.9	2.4	0.1082	3.1	5.2	0.0740
680	68.0	0.58	0.67	0.7320	1.5	1.2	0.1787	1.6	2.0	0.1558	2.4	4.3	0.1200
101	100.0	0.47	0.53	1.1090	1.2	0.95	0.2707	1.4	1.8	0.2053	2.0	3.6	0.1700

PHYSICAL CHARACTERISTICS DIMENSIONS (mm)

MECHANICAL DIAGRAM



PCB PAD LAYOUT



TECHNICAL INFORMATION:

- Notes: [1]Open Circuit Inductance Test Parameters: 100KHz, 250Vrms, 0.0Adc.
 [2]RMS current for an approximate ΔT of 40°C at an ambient temperature of 85°C.
 [3]Peak current for approximately 30% roll off.
 [4]DCR limits 20°C.
 [5]Operating Temperature: -40°C to + 85°C
 All specifications subject to change without notice.

LOW PROFILE SURFACE-MOUNT POWER INDUCTORS FASPI-0401C SERIES



FEATURES:

- Ceramic housing
- High Frequency Design
- Excellent Q Values
- Excellent SRF
- Excellent Thermal Stability
- Low profile
- Small Foot Print

OPTIONS:

- Tape & Reel is Standard [Qty:2000pcs.]
- Bulk packaging Available for Smaller Quantities
- Tolerance:K=10%,M=20% is Standard,Tighter Tolerances Available

COMMON APPLICATIONS:

- Modems
- Mobile Radios
- Cordless Telephones
- Global Positioning Systems
- Wireless Communications Equipment
- Networking System,xDSL Filter
- Computer Products and Peripherals

ELECTRICAL CHARACTERISTICS:

Part Number	Inductance [uH±20]	Test Frequency	DCR Max [Ω]	Last [A]
FASPI0401C - 1R0M	1.0	100KHz	0.08	0.55
FASPI0401C - 1R5M	1.5	100KHz	0.10	0.54
FASPI0401C - 2R2M	2.2	100KHz	0.12	0.53
FASPI0401C - 3R3M	3.3	100KHz	0.16	0.45
FASPI0401C - 4R7M	4.7	100KHz	0.20	0.43
FASPI0401C - 6R8M	6.8	100KHz	0.32	0.38
FASPI0401C - 100M	10	100KHz	0.41	0.3
FASPI0401C - 150M	15	100KHz	0.55	0.27
FASPI0401C - 220M	22	100KHz	0.85	0.22
FASPI0401C - 330M	33	100KHz	1.30	0.18
FASPI0401C - 470M	47	100KHz	1.80	0.14
FASPI0401C - 680M	68	100KHz	2.50	0.12
FASPI0401C - 101M	100	100KHz	3.50	0.095
FASPI0401C - 151M	150	100KHz	5.00	0.075
FASPI0401C - 221M	220	100KHz	7.00	0.06
FASPI0401C - 331M	330	100KHz	15.0	0.045

Note:1. K=±10%,M=±20%,N=±30%

TECHNICAL INFORMATION & PHYSICAL CHARACTERISTICS:

Inductance[L]measured@noted frequencies with ODC bias HP 4284A

Operating Temperature:-55°C to85°C

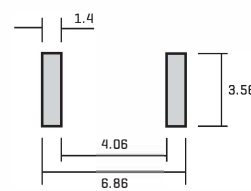
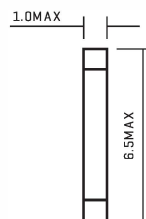
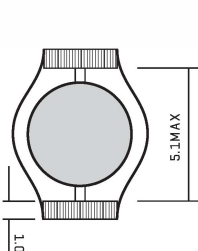
Inductance Drops By 10% at Max rated in uH

Marking per EIA Standard colour code in uH

Dimensions in mm

Specifications subject to change without notice

DIMENSIONS IN: mm



LAND PATTERNS

LOW PROFILE SURFACE-MOUNT POWER INDUCTORS FASPI-0402C SERIES



FEATURES:

- Ceramic housing
- High Frequency Design
- Excellent Q Values
- Excellent SRF
- Excellent Thermal Stability
- Low profile
- Small Foot Print

OPTIONS:

- Tape & Reel is Standard [Qty:2000pcs.]
- Bulk packaging Available for Smaller Quantities
- Tolerance:K=10%,M=20% is Standard,Tighter Tolerances Available

COMMON APPLICATIONS:

- Modems
- Mobile Radios
- Cordless Telephones
- Global Positioning Systems
- Wireless Communications Equipment
- Networking System,xDSL Filter
- Computer Products and Peripherals

ELECTRICAL CHARACTERISTICS:

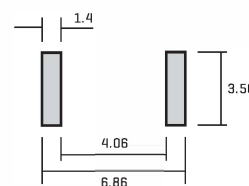
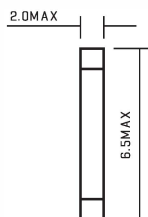
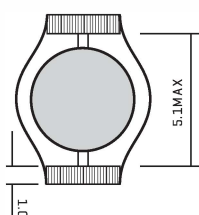
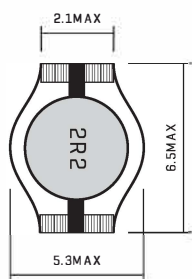
Part Number	Inductance [uH±20%]	DCR Max [Ω]	Last [A]
FASPI0402C - 1R0M	1.0	0.040	2.5
FASPI0402C - 1R5M	1.5	0.06	2.2
FASPI0402C - 2R2M	2.2	0.070	1.8
FASPI0402C - 3R3M	3.3	0.10	1.4
FASPI0402C - 4R7M	4.7	0.120	1.2
FASPI0402C - 6R8M	6.8	0.19	1.1
FASPI0402C - 100M	10	0.26	1.0
FASPI0402C - 150M	15	0.40	0.8
FASPI0402C - 220M	22	0.54	0.6
FASPI0402C - 330M	33	0.74	0.5
FASPI0402C - 470M	47	1.1	0.45
FASPI0402C - 680M	68	1.6	0.35
FASPI0402C - 101M	100	2.3	0.30
FASPI0402C - 151M	150	3.2	0.25
FASPI0402C - 221M	220	5.7	0.20
FASPI0402C - 331M	330	8.2	0.16
FASPI0402C - 471M	470	10.8	0.14
FASPI0402C - 681M	680	17.2	0.12
FASPI0402C - 102M	1000	22.6	0.08

Note:1 K=±10% M=±20% N=±30%

TECHNICAL INFORMATION & PHYSICAL CHARACTERISTICS:

- Inductance[L]measured@noted frequencies with ODC bias
- Operating Temperature:-55°C to 85°C
- Inductance Drops By 10% at Max rated in uH
- Marking per EIA Standard colour code in uH
- Dimensions in mm
- Specifications subject to changewithout notice

DIMENSIONS IN: mm



LAND PATTERNS

LOW PROFILE SURFACE-MOUNT POWER INDUCTORS FASPI-0602C SERIES



FEATURES:

- Ceramic housing
- High Frequency Design
- Excellent Q Values
- Excellent SRF
- Excellent Thermal Stability
- Low profile
- Small Foot Print

OPTIONS:

- Tape & Reel is Standard (Qty:2000pcs.)
- Bulk packaging Available for Smaller Quantities
- Tolerance:K=10%,M=20% is Standard,Tighter Tolerances Available

COMMON APPLCATIONS:

- Modems
- Mobile Radios
- Cordless Telephones
- Global Positioning Systems
- Wireless Communications Equipment
- Networking System,xDSL Filter
- Computer Products and Peripherals

ELECTRICAL CHARACTERISTICS:

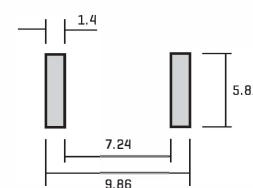
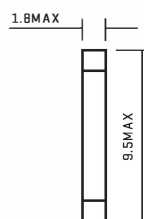
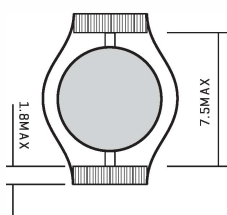
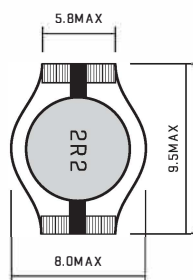
Part Number	Inductance [uH±20%]	Test Frequency	DCR Max [Ω]	Last [A]
FASPI0602C - 4R7M	4.7	100KH z	0.145	1.60
FASPI0602C - 6R8M	6.8	100KH z	0.165	1.30
FASPI0602C - 100M	10	100KH z	0.240	1.00
FASPI0602C - 150M	15	100KH z	0.300	0.90
FASPI0602C - 220M	22	100KH z	0.420	0.70
FASPI0602C - 330M	33	100KH z	0.550	0.60
FASPI0602C - 470M	47	100KH z	0.765	0.50
FASPI0602C - 680M	68	100KH z	1.10	0.40
FASPI0602C - 101M	100	100KH z	1.60	0.30
FASPI0602C - 151M	150	100KH z	2.50	0.25
FASPI0602C - 221M	220	100KH z	3.65	0.22
FASPI0602C - 331M	330	100KH z	4.65	0.18
FASPI0602C - 471M	470	100KH z	6.75	0.14
FASPI0602C - 681M	680	100KH z	9.15	0.12
FASPI0602C - 102M	1000	100KH z	14.20	0.10

Note:1 K=±10% M=±20% N=±30%

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LAND PATTERNS