SMD SHIELDED POWER INDUCTORS

ASPI-0428S

RoHS Compliant



4.7 x 4.7 x 3.0mm

FEATURES:

- Superior to be high saturation for surface mounting
- Very thin & compact
- With large permissible DC current & low DC resistance
- Magnetic shielding surface mount inductor with high rating

APPLICATIONS:

- PDA's flash memory
- Step-up, step-down converters
- Communications
- Hard disk, notebook computer

ELECTRICAL SPECIFICATIONS:

PARAMETERS
ABRACON P/N: ASPI-0428S-XXX
Operating temperature: -40ºC to +125ºC (including self-generated heat)
Storage temperature: -40ºC to +125ºC

Part#	Inductance (µH)	Testing Conditions	Tol. (%)	RDC max. (Ω)	IDC max. (A)
ASPI-0428S-1R0	1.0	100KHz/0.25V	N	0.026	2.70
ASPI-0428S-1R2	1.2	100KHz/0.1V	N	0.024	2.56
ASPI-0428S-1R8	1.8	100KHz/0.1V	N	0.028	2.20
ASPI-0428S-2R2	2.2	100KHz/0.25V	N	0.034	1.80
ASPI-0428S-2R7	2.7	100KHz/0.1V	N	0.043	1.60
ASPI-0428S-3R0	3.0	100KHz/0.25V	N	0.048	1.55
ASPI-0428S-3R3	3.3	100KHz/0.1V	N	0.049	1.57
ASPI-0428S-3R9	3.9	100KHz/0.25V	N	0.048	1.50
ASPI-0428S-4R7	4.7	100KHz/0.25V	N	0.052	1.35
ASPI-0428S-5R6	5.6	100KHz/0.25V	N	0.059	1.21
ASPI-0428S-6R8	6.8	100KHz/0.25V	N	0.088	1.15
ASPI-0428S-8R2	8.2	100KHz/0.1V	N	0.118	1.04
ASPI-0428S-100	10	1KHz/0.25V	M	0.120	1.00
ASPI-0428S-120	12	1KHz/0.25V	M	0.140	0.84
ASPI-0428S-150	15	1KHz/0.25V	M	0.156	0.75
ASPI-0428S-180	18	100KHz/0.1V	M, N	0.166	0.72
ASPI-0428S-220	22	1KHz/0.25V	M	0.247	0.70
ASPI-0428S-270	27	1KHz/0.25V	M	0.299	0.58
ASPI-0428S-330	33	1KHz/0.25V	M	0.325	0.57
ASPI-0428S-390	39	1KHz/0.25V	M	0.351	0.52
ASPI-0428S-430	43	1KHz/0.25V	M	0.377	0.51
ASPI-0428S-470	47	1KHz/0.25V	M	0.442	0.50
ASPI-0428S-560	56	1KHz/0.25V	M	0.468	0.41
ASPI-0428S-680	68	1KHz/0.25V	M	0.546	0.35
ASPI-0428S-820	82	1KHz/0.25V	M	0.780	0.32

*Continued on next page

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5101 Hidden Creek Ln Spicewood TX 78669
Phone: 512-371-6159 | Fax: 512-351-8858
For terms and conditions of sales, please visit:
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REVISED: 09-30-20

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ISO9001-2015
CERTIFIED

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Part#	Inductance (µH)	Testing Conditions	Tol. (%)	RDC max. (Ω)	IDC max. (A)
ASPI-0428S-101	100	1KHz/0.25V	M	0.858	0.29
ASPI-0428S-121	120	1KHz/0.25V	M	1.30	0.27
ASPI-0428S-151	150	1KHz/0.25V	M	1.50	0.24
ASPI-0428S-181	180	1KHz/0.25V	M	1.60	0.22
ASPI-0428S-221	220	100KHz/0.1V	M, N	2.00	0.21
ASPI-0428S-271	270	1KHz/0.25V	M	2.86	0.185
ASPI-0428S-331	330	1KHz/0.25V	M	3.25	0.170
ASPI-0428S-391	390	1KHz/0.25V	M	4.55	0.155
ASPI-0428S-471	470	1KHz/0.25V	M	5.07	0.140
ASPI-0428S-561	560	1KHz/0.25V	M	5.46	0.130
ASPI-0428S-681	680	1KHz/0.25V	M	6.11	0.120

Note:
Test Conditions
- 100KHz/0.25V, 1KHz/0.25V, 100KHz/0.1V
- Tolerance: N=±30%; M=±20%, M tolerance is standard
- Rated DC Current: The current when the inductance becomes 35% lower than its initial value or the current when the temperature of coil increases to Δ40°C. The smaller one is defined as Rated DC Current.
(Ta=25°C)
- DCR & IDC listed are all Max. value.

OPTIONS AND PART IDENTIFICATION

ASPI - 0428S - □□□ □ - □

Inductance Code
Please refer to the Table

Tolerance
M: ±20%
N: ±30%

Packaging
T: Tape and Reel (2,000pcs/reel)

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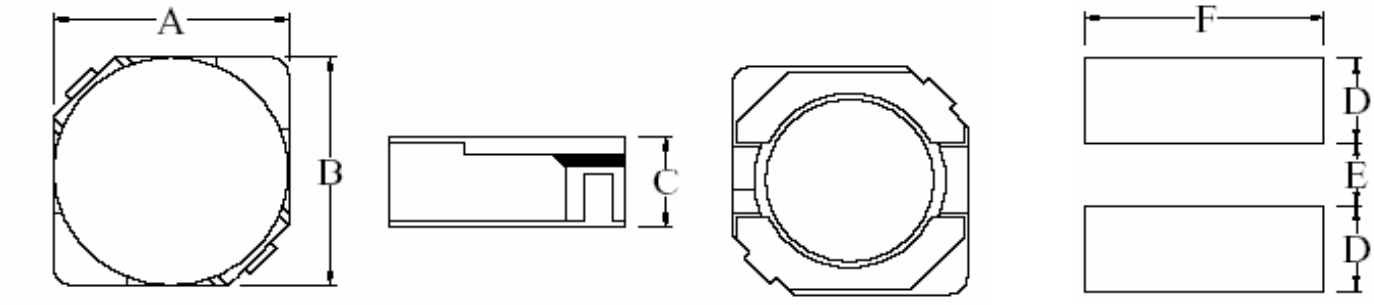
ASPI-0428S

RoHS Compliant



4.7 x 4.7 x 3.0mm

OUTLINE DRAWING:

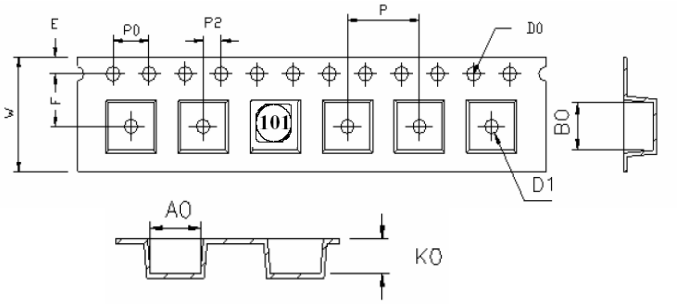


Part#	A	B	C	D	E	F
ASPI-0428S-xxx	0.185±0.012	0.185±0.012	0.118 Max	0.075 ref.	0.059 ref.	0.209 ref.
	(4.7± 0.3)	(4.7± 0.3)	(3.0) max.	(1.9) ref.	(1.5) ref.	(5.3) ref.

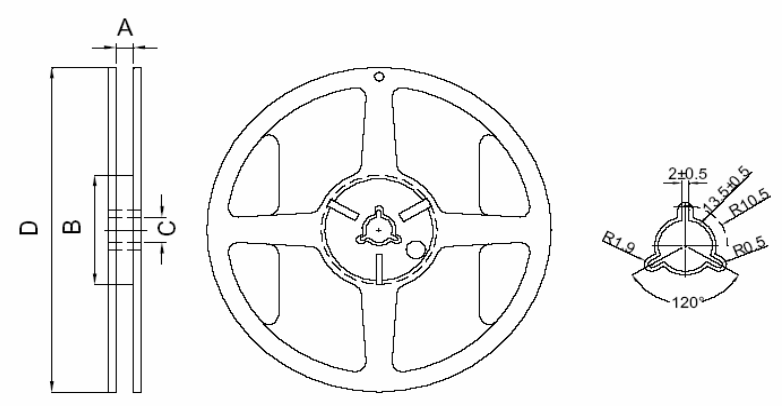
Dimension : Inches (mm)

PACKAGING

T: 2,000pcs/reel



Part#	A0	B0	K0	P	P0	P2
ASPI-0428S-xxx	5.2± 0.1	5.2± 0.1	3.2± 0.1	8.0± 0.1	4.0± 0.1	2.0± 0.1
	W	F	E	D0	D1	
	12± 0.3.	5.5± 0.05	1.75±0.1	1.5 min.	1.5 min.	



Part#	A	B	C	D
ASPI-0428S-xxx	12.5± 0.5	100± 0.5	13.5± 0.3	330± 1.0

Dimension : mm

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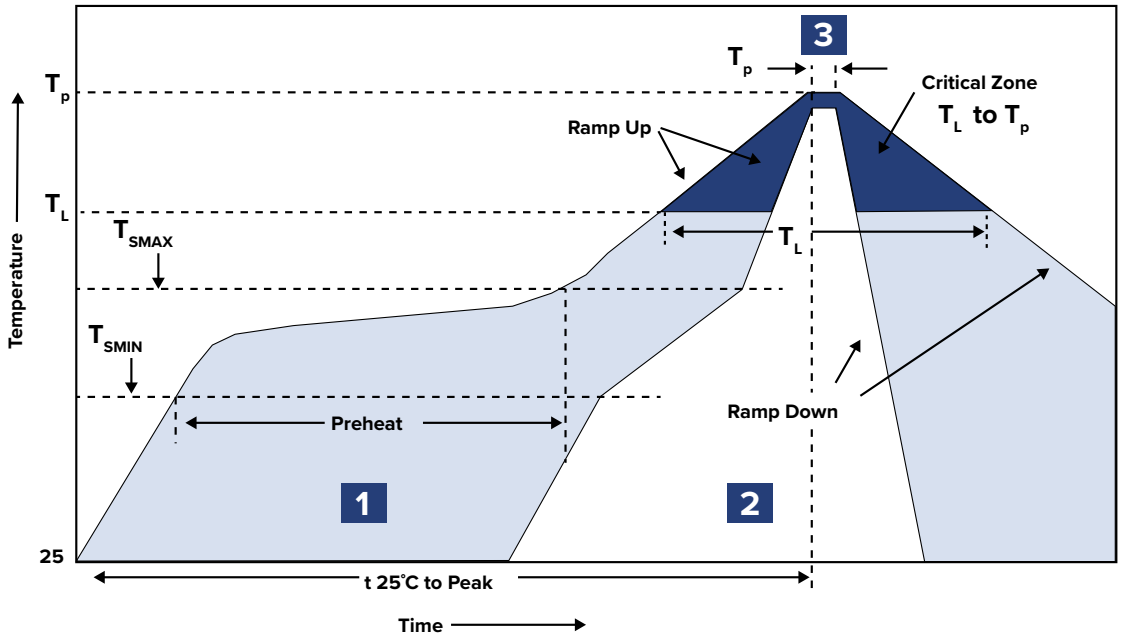
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REFLOW PROFILE:



Zone	Description	Temperature	Time
1	Preheat / Soak	T_{SMAX} 120°C ~ 180°C	50 ~ 150 sec.
2	Reflow	T_L 217°C	70 sec.
3	Peak heat	T_P 250°C ~ 260°C	10 - 30 sec. MAX

Dimension: mm

ATTENTION: Abracon LLC's products are COTS – Commercial-Off-The-Shelf products; suitable for Commercial, Industrial and, where designated, Automotive Applications. Abracon's products are not specifically designed for Military, Aviation, Aerospace, Life-dependent Medical applications or any application requiring high reliability where component failure could result in loss of life and/or property. For applications requiring high reliability and/or presenting an extreme operating environment, written consent and authorization from Abracon LLC is required. Please contact Abracon LLC for more information.

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