ABRACON

Engineering/Process Change Notice

ECN/PCN No.: M1218

For Manufacturer			
Product Description: SMD Power Inductor	**Abracon Part Number / Part Series:** ASPI-0403	☐ Documentation only ☒ ECN ☐ EOL	☒ Series ☐ Part Number(s)
Affected Revision: D	**New Revision:** E	**Application**:	☐ Safety ☒ Non-Safety

Prior to Change:

1.0 Key Electrical Specifications

PART NUMBER	INDUCTANCE (uH)	Tolerance	DCR (Ω) max	IDC (A) max	Inductance Code
ASPI-0403-1R0	1.0	M	0.0487	2.56	1R0
ASPI-0403-1R4	1.4	M	0.0562	2.52	1R4
ASPI-0403-1R8	1.8	M	0.0637	1.95	1R8
ASPI-0403-2R2	2.2	M	0.0712	1.75	2R2
ASPI-0403-2R7	2.7	M	0.0787	1.58	2R7
ASPI-0403-3R3	3.3	M	0.0862	1.44	3R3
ASPI-0403-3R9	3.9	M	0.0937	1.33	3R9
ASPI-0403-4R7	4.7	M	0.1087	1.15	4R7
ASPI-0403-5R6	5.6	M	0.1257	0.99	5R6
ASPI-0403-6R8	6.8	M	0.1312	0.95	6R8
ASPI-0403-8R2	8.2	M	0.1462	0.84	8R2
ASPI-0403-100	10	K	0.1820	1.04	100
ASPI-0403-120	12	K	0.2100	0.97	120
ASPI-0403-150	15	K	0.2350	0.85	150
ASPI-0403-180	18	K	0.3380	0.74	180
ASPI-0403-220	22	K	0.3780	0.68	220
ASPI-0403-270	27	K	0.5220	0.62	270
ASPI-0403-330	33	K	0.5400	0.56	330
ASPI-0403-390	39	K	0.5870	0.52	390
ASPI-0403-470	47	K	0.8440	0.44	470
ASPI-0403-560	56	K	0.9370	0.42	560
ASPI-0403-680	68	K	1.1170	0.37	680

1.1 Test Conditions

Inductance: Test Frequency is 7.96MHz (1.0µH ~ 8.2µH); 2.52MHz(10µH ~ 68µH)
Isat: ΔL/L (initial) ≥ -10% or ΔT=40°C (Ta=20°C), whichever is lower.

1.2 Operating Temperature

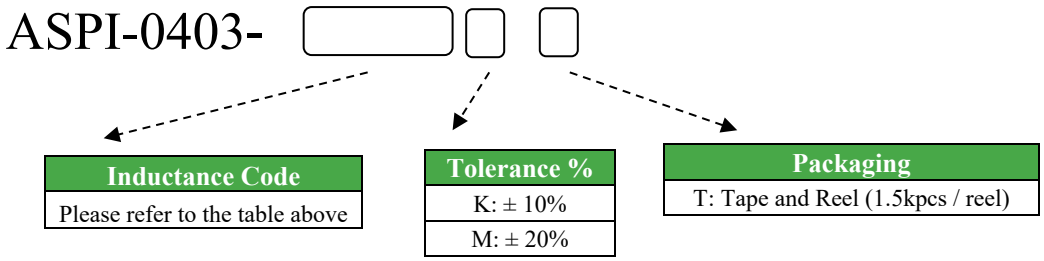
-40˚C to +85˚C

1.3 Storage Temperature

+5˚C to +40˚C

2.0 MSL level: 1

3.0 Part Number Identification



Packing

T: 1500pcs / reel

After Change:

2.0 Key Electrical Specifications

PART NUMBER	INDUCTANCE (uH)	Tolerance	DCR (Ω) max	Testing Conditions	IDC (A) max
ASPI-0403-0R5	0.5	M	0.020	100KHz, 0.25V	3.00
ASPI-0403-1R0	1.0	M	0.049	100KHz, 0.25V	2.70
ASPI-0403-1R2	1.2	N	0.049	100KHz, 0.25V	2.54
ASPI-0403-1R4	1.4	M	0.053	100KHz, 0.25V	2.50
ASPI-0403-1R5	1.5	M	0.056	100KHz, 0.25V	2.24
ASPI-0403-1R8	1.8	M	0.064	100KHz, 0.25V	2.33
ASPI-0403-2R2	2.2	M	0.072	100KHz, 0.25V	2.25
ASPI-0403-2R7	2.7	M	0.079	100KHz, 0.25V	2.16
ASPI-0403-3R3	3.3	M	0.086	100KHz, 0.25V	2.00
ASPI-0403-3R9	3.9	M	0.094	100KHz, 0.25V	1.84
ASPI-0403-4R7	4.7	M	0.109	100KHz, 0.25V	1.62
ASPI-0403-5R6	5.6	M	0.126	100KHz, 0.25V	1.48
ASPI-0403-6R8	6.8	M	0.131	100KHz, 0.25V	1.43
ASPI-0403-8R2	8.2	M	0.147	100KHz, 0.25V	1.37
ASPI-0403-100	10	K, M	0.182	1KHz, 0.25V	1.04
ASPI-0403-120	12	K, M	0.210	1KHz, 0.25V	0.97
ASPI-0403-150	15	K, M	0.235	1KHz, 0.25V	0.85
ASPI-0403-180	18	K, M	0.338	1KHz, 0.25V	0.74
ASPI-0403-220	22	K, M	0.378	1KHz, 0.25V	0.68
ASPI-0403-270	27	K, M	0.522	1KHz, 0.25V	0.62
ASPI-0403-330	33	K, M	0.540	1KHz, 0.25V	0.56
ASPI-0403-390	39	K, M	0.587	1KHz, 0.25V	0.52
ASPI-0403-470	47	K, M	0.844	1KHz, 0.25V	0.44
ASPI-0403-560	56	K, M	0.937	1KHz, 0.25V	0.42
ASPI-0403-680	68	K, M	1.117	1KHz, 0.25V	0.37
ASPI-0403-820	82	K, M	1.140	1KHz, 0.25V	0.34
ASPI-0403-101	100	K, M	1.190	1KHz, 0.25V	0.30
ASPI-0403-121	120	K, M	1.400	1KHz, 0.25V	0.256
ASPI-0403-151	150	K, M	1.800	1KHz, 0.25V	0.212
ASPI-0403-181	180	K, M	1.920	1KHz, 0.25V	0.200
ASPI-0403-221	220	K, M	2.030	1KHz, 0.25V	0.180
ASPI-0403-271	270	K, M	2.890	1KHz, 0.25V	0.174
ASPI-0403-331	330	K, M	3.760	1KHz, 0.25V	0.168

ASPI-0403-391	390	K, M	4.260	1KHz, 0.25V	0.160
ASPI-0403-471	470	K, M	5.140	1KHz, 0.25V	0.158
ASPI-0403-561	560	K, M	6.370	1KHz, 0.25V	0.148
ASPI-0403-681	680	K, M	9.240	1KHz, 0.25V	0.128
ASPI-0403-821	820	K, M	13.40	1KHz, 0.25V	0.110
ASPI-0403-102	1000	K, M	15.60	1KHz, 0.25V	0.109

1.4 Test Conditions

Isat: ΔL/L (initial) ≥ -10% or ΔT=40°C (Ta=20°C), whichever is lower.

1.5 Operating Temperature

-40˚C to +125˚C

1.6 Storage Temperature

15˚C to +28˚C

4.0 Part Number Identification

ASPI-0403- [ ] [ ] [ ]

Inductance Code	Tolerance %	Packaging
Please refer to the table above	K: ± 10% M: ± 20%	T: Tape and Reel (2000 pcs / reel)

Packing

T: 2000pcs / reel

Cause/Reason for Change:

Moving the series to a new production line, Better current ratings accommodated for existing parts, 17 new parts added to the series, change in operating temperature range, storage temperature, testing conditions, and pcs/reel

Change Plan

Effective Date:	**Additional Remarks:**
2/11/2021	

Change Declaration:

The change does not affect form fit or function of the series. Better current rating accommodated. 17 new parts added to the series, change in operating temperature range, storage temperature, testing conditions, and pcs/reel.

Issued Date:	**Issued By:**	**Issued Department:**
2/11/2021	*Ahmed Alamin*	Engineering
Approval: *Syed Raza* Engineering VP	**Approval:** *Reuben Quintanilla* Quality Director	**Approval:** *Ying Huang* Purchasing Director

For Abracon EOL only

Last Time Buy (if applicable):	**Alternate Part Number / Part Series:**	
Additional Approval:	**Additional Approval:**	**Additional Approval:**

Customer Approval (If Applicable)		
Qualification Status: ☐ Approved ☐ Not accepted *Note: It is considered approved if there is no feedback from the customer 1 month after ECN/PCN is released.*		
Customer Part Number:	**Customer Project:**	
Company Name:	**Company Representative:**	**Representative Signature:**
Customer Remarks:		