ECN/PCN No.: M1342

For Manufacturer			
Product Description: MOLDING TYPE POWER INDUCTOR	**Abracon Part Number / Part Series:** ASPI-0630LR	☐ Documentation only ☒ ECN ☐ EOL	☒ Series ☐ Part Number
Affected Revision: A	**New Revision:** B	**Application:**	☐ Safety ☒ Non-Safety

Prior to Change:

1.0 Key Electrical Specifications

Part Number	Inductance	Tolerance	DCR Typ	DCR Max	Saturation Current	Temperature Rise Current
Units	µH	%	mΩ	mΩ	A	A
Symbol	L	M			Isat	Irms
ASPI-0630LR-R47	0.47	M	3.5	4.1	20.0	18.0
ASPI-0630LR-R56	0.56	M	4.7	5.0	18.0	17.0
ASPI-0630LR-R68	0.68	M	6.0	6.5	17.0	16.0
ASPI-0630LR-R82	0.82	M	7.0	7.5	16.0	14.0
ASPI-0630LR-1R0	1.0	M	8.5	9.0	15.0	12.0
ASPI-0630LR-1R5	1.5	M	10.5	12.0	14.0	10.0
ASPI-0630LR-2R2	2.2	M	16.0	18.5	10.0	8.0
ASPI-0630LR-3R3	3.3	M	25.0	28.0	10.0	6.5
ASPI-0630LR-4R7	4.7	M	32.5	35.0	6.5	5.5
ASPI-0630LR-5R6	5.6	M	32.5	35.5	5.0	6.0
ASPI-0630LR-6R8	6.8	M	54.0	60.0	6.0	4.5
ASPI-0630LR-100	10.0	M	62.0	68.0	5.5	4.0
ASPI-0630LR-150	15.0	M	110.0	120.0	5.0	3.0
ASPI-0630LR-220	22.0	M	152.0	167.0	2.5	2.5

Test Conditions

1. Inductance is measured in HP-4284A Precision LCR Meter.
2. RDC is measured in HP-4338B milli ohm meter.(or equivalent).
3. Isat: Based on inductance change (△L/Lo : ≤ -30%)
4. Irms: Based on temperature rise (△T : 40°C TYP.)

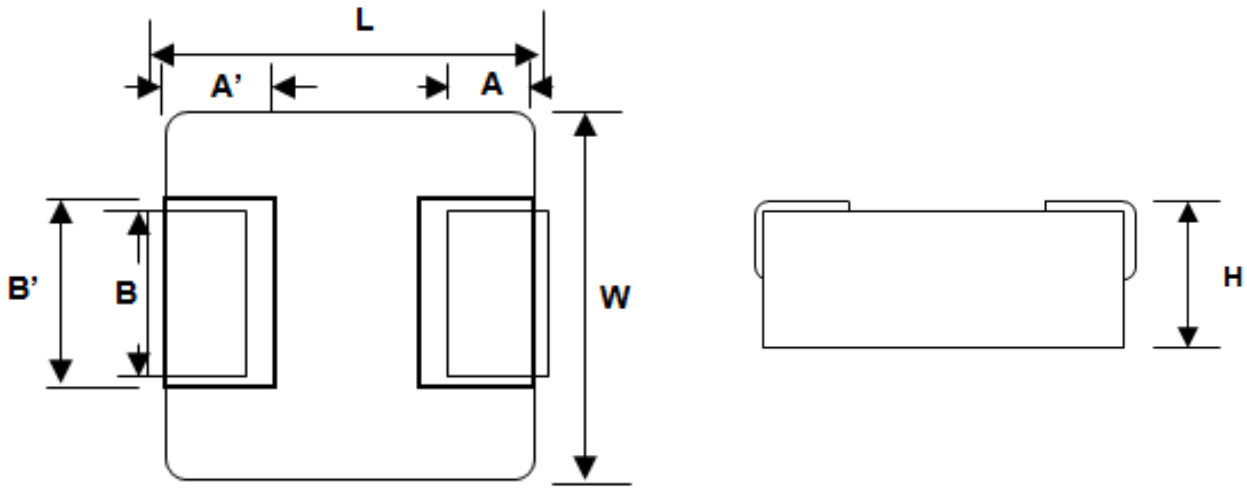
Operating Temperature

-55˚C to +125˚C (Including self generated heat)

Storage Temperature and Humidity

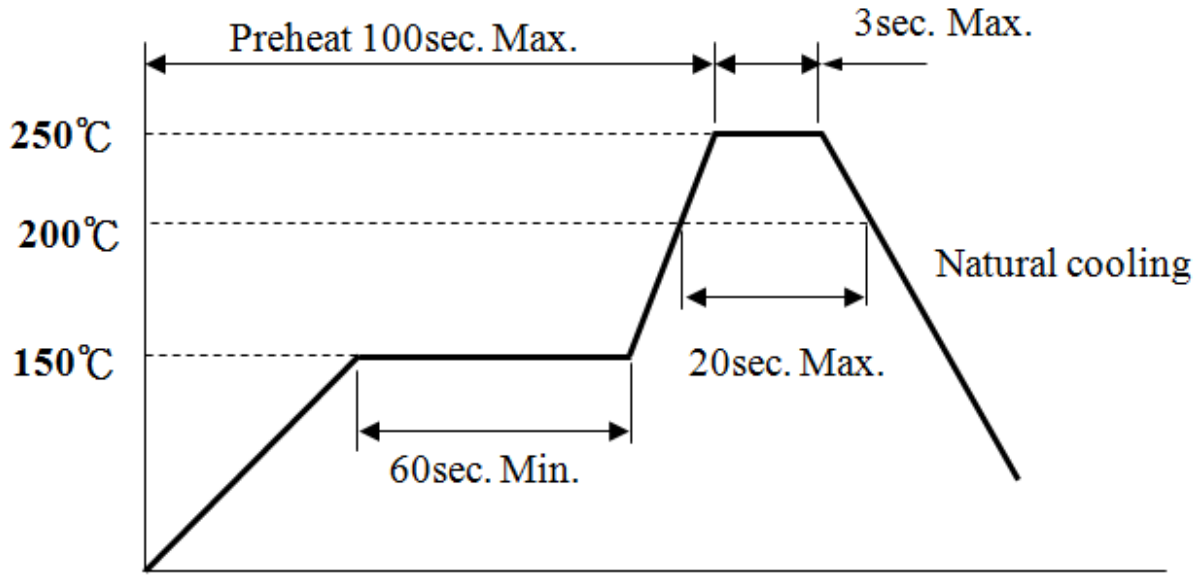
+25˚C to +35˚C, 45% to 85% RH

Mechanical Dimension

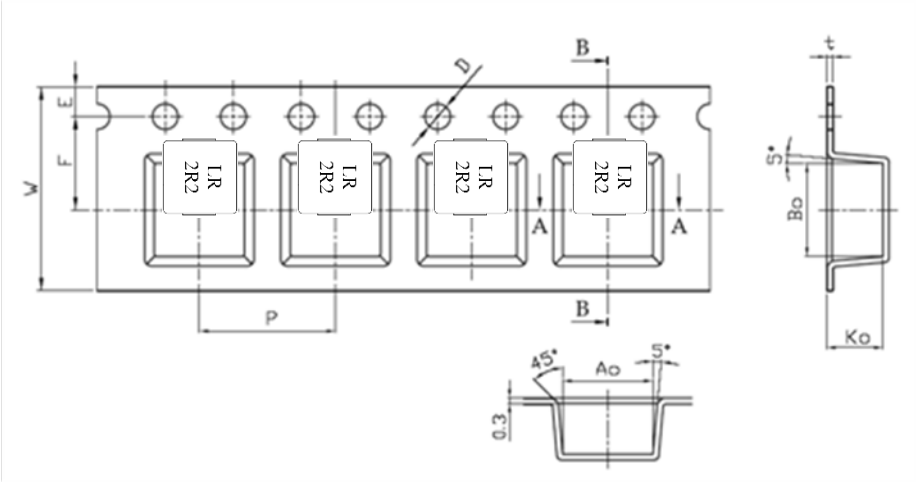


A	A'	B	B'	L	W	H max
1.6 ±0.4	2.0 ±0.1	3.0 ±0.3	3.4 ±0.2	7.2 ±0.3	6.65 ±0.2	3.0

Reflow Profile



7.0 Packing
T15: 1,500pcs / reel



A0	7.2
B0	7.5
K0	3.6
P	12.0
t	0.3
W	16
E	1.75
F	7.5
D	1.5

After Change:

Electrical Specifications

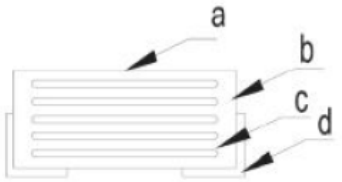
Part Number	Inductance	Tolerance	DCR Max	Saturation Current Typ.	Temperature Rise Current Typ.
Units	µH	%	mΩ	A	A
Symbol	L	M		Isat	Irms
ASPI-0630LR-R22	0.22	M	3.0	34.0	24.0
ASPI-0630LR-R33	0.33	M	3.5	23.0	21.0
ASPI-0630LR-R47	0.47	M	4.1	20.0	18.0
ASPI-0630LR-R56	0.56	M	5.0	18.0	16.0
ASPI-0630LR-R68	0.68	M	6.5	17.0	16.0
ASPI-0630LR-R82	0.82	M	7.5	16.0	14.0
ASPI-0630LR-1R0	1.0	M	9.0	15.0	12.0
ASPI-0630LR-1R5	1.5	M	12.1	12.0	10.0
ASPI-0630LR-2R2	2.2	M	18.5	10.0	8.0
ASPI-0630LR-3R3	3.3	M	28.0	9.5	6.5
ASPI-0630LR-4R7	4.7	M	35.0	6.5	5.5
ASPI-0630LR-5R6	5.6	M	42.0	5.0	5.0
ASPI-0630LR-6R8	6.8	M	60.0	6.0	4.5
ASPI-0630LR-8R2	8.2	M	60.0	5.5	5.0
ASPI-0630LR-100	10.0	M	68.0	5.5	4.0
ASPI-0630LR-150	15.0	M	120.0	4.0	3.0
ASPI-0630LR-220	22.0	M	170.0	2.5	2.5
ASPI-0630LR-330	33.0	M	270.0	2.5	2.0
ASPI-0630LR-470	47.0	M	385.0	2.0	1.5

Test Conditions

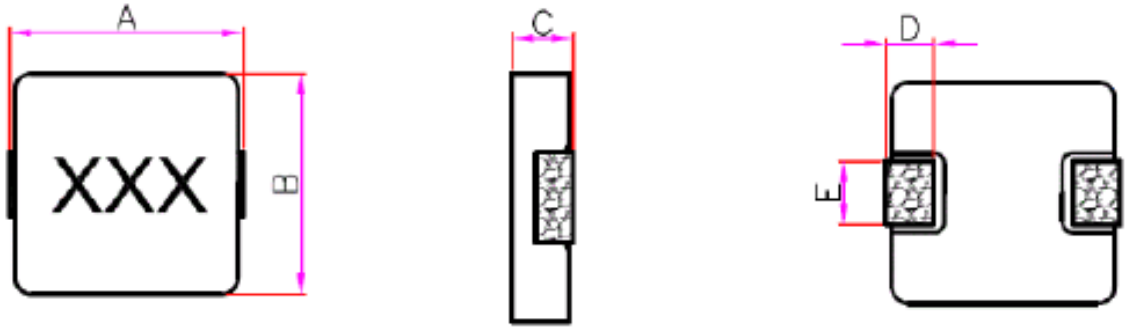
Inductance is measured using Wayne Kerr3260+3265B at 100KHz, 1V.
RDC is measured using HIOKI3540.
Isat: Based on inductance change (△L/Lo : ≤ -30%)
Irms: Based on temperature rise (△T : 40°C TYP.)

Materials

No.	Description	Specification
a	Marking	Ink (black)
b	Core	Alloy Sponge Powder
c	Wire	Polyurethane copper wire
d	Terminal	Copper plated with Sn

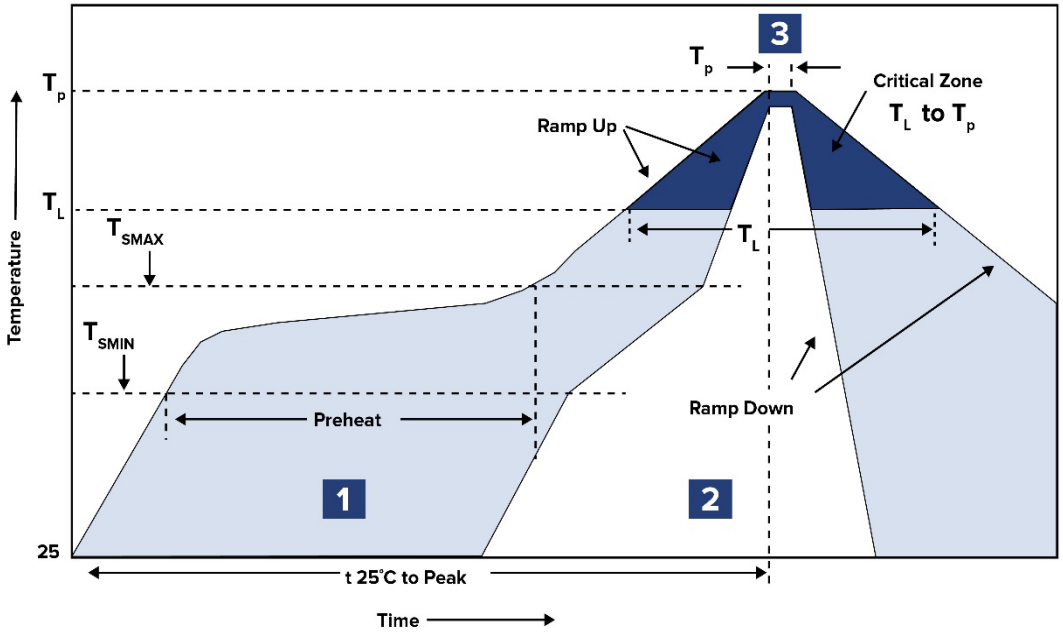


Mechanical Specifications



A	B	C	D	E
7.1 ±0.4	6.6 ±0.25	2.8 ±0.2	1.6 ±0.4	3.00 ±0.3

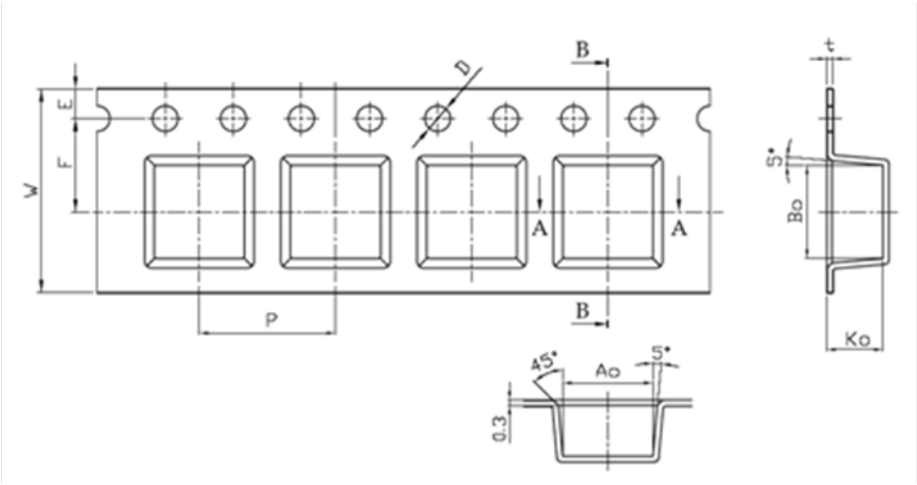
Reflow Profile



Zone	Description	Temperature	Times
1	Preheat	T_{SMIN} ~ T_{SMAX} 150°C ~ 200°C	60 ~120 Sec.
2	Reflow	T_L 217°C	60 ~90 Sec.
3	Peak heat	T_P 255°C (0/ -5°C)	10 sec. Max

Packing

T15: 1,500pcs / reel



A0	6.9 ±0.3
B0	7.5
K0	3.3 ±0.3
P	12.0
t	0.35 Max
W	16
E	1.75
F	7.5
D	1.5

Cause/Reason for Change: R22, R33, 8R2, 330, 470 were added to the series. The electrical specs of multiple parts have been updated. Dimensions graphics and reflow profile were updated; minor changes to the tape dimensions. Dimensions values has been adjusted to include max tolerances (there is no change in physical dimensions of parts)

Change Plan

Effective Date:	**Additional Remarks:**

Change Declaration: The change does not affect the form or fit of any device in the series.

Issued Date: 3/2/2022	**Issued By:**	**Issued Department:** Engineering
Approval:	**Approval:**	**Approval:**

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:		