<SPECIFICATION>

SPEC.No. ASDIQ-SPE-185(00)
Date： Oct.21,2022

To :

CUSTOMER'S PRODUCT NAME

ASDI PRODUCT NAME:
AMPI201610NF-SERIES

RECEIPT CONFIRMATION

UNCONDITIONAL CONSENT	CONDITIONAL CONSENT

APPROVED	CHECKED

ASDI SIGNATURE

APPROVED	CHECKED	PREPARED
Xianglong Li	Liang Wang	Jiayin Cai

ASDI Xiamen ASDI Electronics Co.,Ltd.

REV.	DATE	DESCRIPTION	APPROVED	CHECKED	PREPARED
00	Oct.21,2022	New release	Xianglong Li	Liang Wang	Jiayin Cai

CAUTION WHEN HANDLING

Before use the products, please read this specification.

CAUTION FOR SAFETY USING

When use the products, be careful to mentioned below for safety using.

CAUTION

*The product should be used within 12 monthes.
Focus on the storage conditions.
Solderability may become weak if it exceeds the period.
*Do not use and store the product in condition of gas corrosion
(Salt,Acid,Alkaline).
*The products must be preheated before soldering.
The operating temperature including self-generated heat must be within '- 25 ~ +125℃.
*Rework by soldering iron;Please keep the mentioned conditions in this specification.
*In case of insert P.C. Board on chassis, do not add mechanical stress to the product.
*Be careful to arrange of non-magnetic field type inductors.
The error may be caused by magnetic field coupling.
*In case handle the products, please use wrist strap for ground static discharge on human body.
The product keeps away from magnet or magnetized things.
*Do not use the product beyond the mentioned conditions in this specification.
*About an application
The products listed on this specification sheet are intended for use in general electronic equipment
(AV equipment, telecommunications equipment, home appliances, amusement equipment, computer equipment, personal equipment, office equipment, measurement equipment, industrial robots) under a normal operation and use condition.
*The products are not designed or warranted to meet the requirements of the applications listed below, whose performance and/or quality require a more stringent level of safety or reliability, or whose failure, malfunction or trouble could cause serious damage to society, person or property. Please understand that we are not responsible for any damage or liability caused by use of the products in any of the applications below or for any other use exceeding the range or conditions set forth in this specification sheet.

1)Aerospace/Aviation equipment
2)Military equipment
3)Seabed equipment
4)Safety equipment
5)Medical equipment
6)Transportation control equipment
7)Power-generation control equipment which directly endanger human life
8)Atomic energy-related equipment
9)Other applications that are not considered general-purpose applications

If you intend to use the products in the following applications, please contact our sales office.
Transportation equipment (cars, electric trains, ships, etc.), Public information-processing equipment, Electric heating apparatus / burning equipment, Disaster prevention/crime prevention equipment
When using this product in general-purpose applications, you are kindly requested to take into consideration securing protection circuit/equipment or providing backup circuits, etc., to ensure higher safety.

1.INDEX

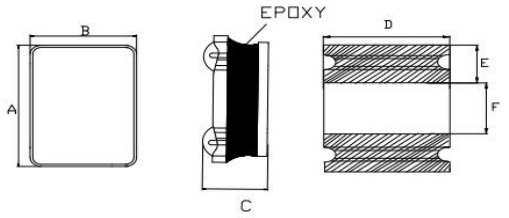
2.Manufacturing Location

China

(1)Features

1.This specification applies Low Profile Power Inductors.
2.100% Lead(Pb) & Halogen-Free and RoHS compliant.

(2)Dimensions



Units: mm

Series	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)	F(mm)
AMPI201610NF	2.1+0.3 /-0.2	1.7+0.30 /-0.2	1.05MAX	1.7+0.35 /-0.2	0.675±0.3	0.7REF

(3)Part Numbering

AMPI	201610	NF	-	2R2	M
A	B	C		D	E

A: Series
B: Dimension
C: Control S/N
D: Inductance 2R2=2.2μH
E: Inductance Tolerance M=±20%

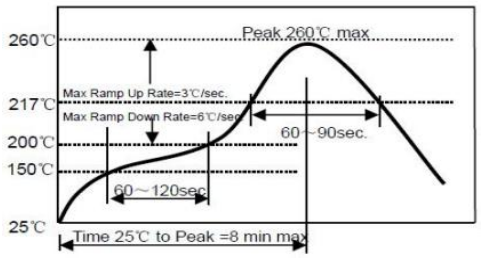
(4)Electrical Specifications

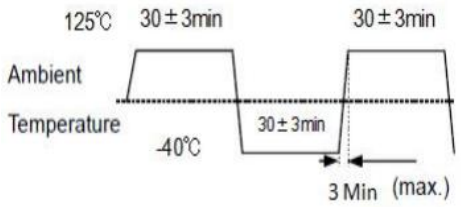
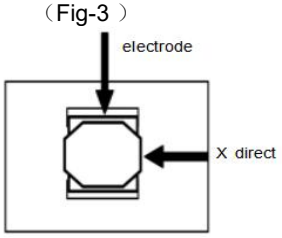
Table 1

ASDI Part Number	Inductance (μH)	Test Frequency (KHz)	DCR (mΩ)MAX	DCR (mΩ)TYP	I sat (A)	I rms (A)
AMPI201610NF-R47N	0.47	1MHZ/0.1V	53	41	2.70	2.16
AMPI201610NF-R68N	0.68	1MHZ/0.1V	82	66	2.00	1.60
AMPI201610NF-1R0M	1.0	1MHZ/0.1V	115	90	2.00	1.60
AMPI201610NF-1R5M	1.5	1MHZ/0.1V	156	137	1.70	1.36
AMPI201610NF-2R2M	2.2	1MHZ/0.1V	174	155	1.26	1.01
AMPI201610NF-3R3M	3.3	1MHZ/0.1V	294	240	1.05	0.84
AMPI201610NF-4R7M	4.7	1MHZ/0.1V	432	340	0.85	0.68
AMPI201610NF-6R8M	6.8	1MHZ/0.1V	620	575	0.72	0.58
AMPI201610NF-100M	10	1MHZ/0.1V	864	730	0.60	0.48
AMPI201610NF-150M	15	1MHZ/0.1V	1680	1300	0.55	0.39
AMPI201610NF-180M	18	1MHZ/0.1V	1700	1360	0.40	0.32
AMPI201610NF-220M	22	1MHZ/0.1V	2000	1550	0.38	0.30

Isat：Based on inductance change （△L/L0：≦30%）@ ambient temp. 25℃
Irms：Based on temperature rise （Irms(A) ΔT≦40℃）

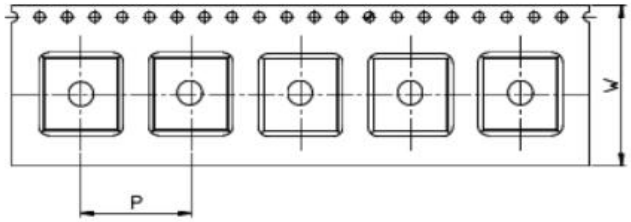
(5)Reliability Tests

Items	Requirements	Test Methods and Remarks
Resistance to Soldering Heat	1.No visible mechanical damage 2.Inductance change: W ithin ±5%	1.Solder on PCB to Reflow test Peak Temp. 260±5℃ 5~10 secs ,Cycles :2 times.Re-flowing Profile: Please refer to Fig- 1 2.Test board thickness: 1.5mm 3.Test board material: glass epoxy resin 4.The specimen shall be stored at standard atmospheric conditions for 1 hour, after which the measurement shall be made.product showed no damage under microscope.(for microscope of Shun Yu SZM-45 20X) （ Fig- 1） 
High Temperature	1.No visible mechanical damage 2.Inductance change: W ithin ± 10%	1.Temperature: 125±2℃ 2.Duration: 1000 hours 3.The specimen shall be stored at standard atmospheric conditions for 1 hour, after which the measurement shall be made.
Steady damp-heat	1.No visible mechanical damage 2.Inductance change: W ithin ± 10%	1.Temperature:85℃ 2.Humidity: 85% RH 3.Duration:1000 hours 4.The specimen shall be stored at standard atmospheric conditions for 1 hour, after which the measurement shall be made.
Mechanical Vibration	1.No visible mechanical damage 2.Inductance change: W ithin ± 10%	1.Frequency: 10HZ~55HZ~10HZ/Min Cycles 2.Amplitude: 1.5 mm 3.Directions: X,Y,Z 4.Time: 2 hours in each directions (total of 6 hours)

Items	Requirements	Test Methods and Remarks
Thermal Shock	1.No visible mechanical damage 2.Inductance change: W ithin ± 10%	1.Temperature and time: -40℃ for 30±3 min→ 125℃ for 30±3min, please refer to Fig-2 2.Transforming interval: Max. 3 Min 3.Tested cycle: 1000 cycles 4.The specimen shall be stored at standard atmospheric conditions for 1 hour, after which the measurement shall be made. （Fig-2） 
Salt Spray	1.No visible mechanical damage 2.Inductance change: W ithin ± 10%	1.Salt concentration: (5 ± 1)% (mass percent) 2.pH value:6.5 - 7.2 3.temperature: 35 ± 2 ℃ 4.humidity: 85% 5.time: 24 hours 6.in normal temperature and humidity for 1 ~ 2 hours, testing inductance, the inductance value change can not be more than before test ± 10%.
Terminal strength	1.The peak thrust is greater than 10N	1.The electrode of the inductor is soldered to the PCB, to Fig-3 Then apply a force in the X direction of the arrow. 2. 10N force. 3. Keep time: 10(±1)s 4.The first three tests were OK, and the force was applied until the peak value of the product peeling. The test speed was set in the range of 3 ~ 8mm/min. （Fig-3 ） 

(6)Packaging

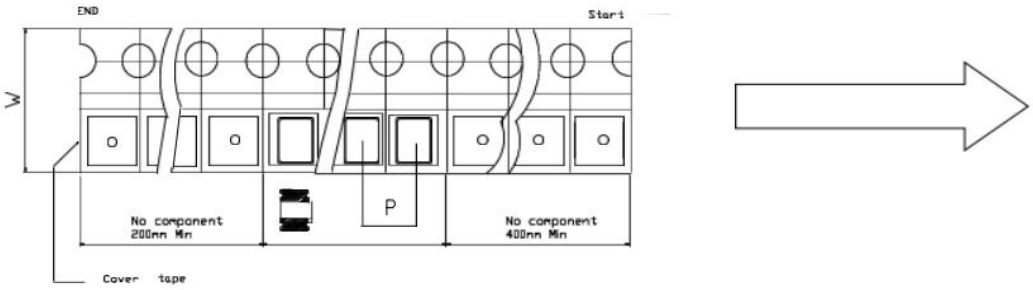
6-1,Carrier Tape Dimensions(mm)



W	8
P	4

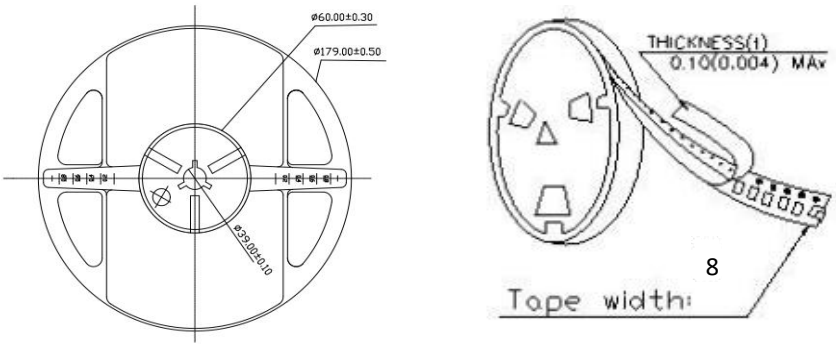
(7)Taping Dimensions(mm)

Unreeling Direction



Note: After the tape is woven, the outermost layer of the reel is 400mmMIN, and the innermost layer is 200mmMIN.

(8)Reel Dimensions(mm)



(9)Quantity

2000pcs/Reel

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单击下面可查看定价，库存，交付和生命周期等信息

>>ASDI