

<SPECIFICATION>

SPEC.No. ASDIQ-SPE-154(01)
Date: Aug.30,2022

To :

CUSTOMER'S PRODUCT NAME

ASDI PRODUCT NAME:
ASCM4532L-SERIES

RECEIPT CONFIRMATION

UNCONDITIONAL CONSENT

CONDITIONAL CONSENT

APPROVED	CHECKED

ASDI SIGNATURE

APPROVED	CHECKED	PREPARED
Xianglong Li	Liang Wang	Jiayin Cai



Xiamen ASDI Electronics Co.,Ltd.

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 months.

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.

*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

6)Transportation control equipment

2)Military equipment

7)Power-generation control equipment
which directly endanger human life

3)Seabed equipment

8)Atomic energy-related equipment

4)Safety equipment

9)Other applications that are not

5)Medical equipment

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.

Xiamen ASDI Electronics Co.,Ltd.

DWG.No.
ASDIQ-SPE-154(01)

ISSUE

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2.Manufacturing Location

China

(1)Features

- High common mode impedance at high frequency effects excellent noise suppression performance.
- ASCM4532L series realizes small size and low profile 4.5*3.2*2.8 mm.
- 100% Lead(Pb)& Halogen-Free and RoHS compliant.

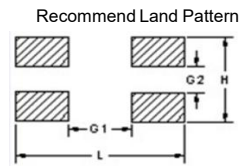
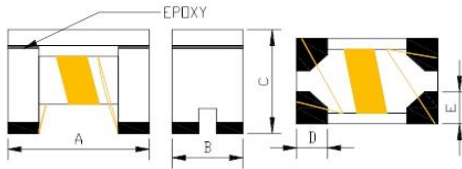
(2)Product Identification

ASCM **4532** **L** **-2** **-110** **T** **F**
 ① ② ③ ④ ⑤ ⑥ ⑦

- ① Series name
- ② Dimension
- ③ Inductance
- ④ 2 lines
- ⑤ 11μH
- ⑥ Packing(Tape & Reel)
- ⑦ HSF Products(Hazardous Substance Free Products)



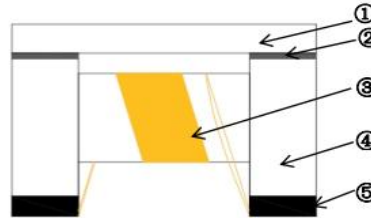
(3)Dimensions (unit:mm)



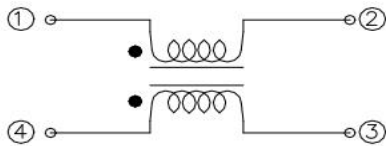
A	B	C	D	E	L	H	G1	G2
4.50±0.20	3.20±0.20	2.80±0.20	1.00±0.1	1.20±0.1	4.8	3.8	2.5	0.7

(4)Structure and Components

No.	Part Name	Material Name
①	Lid	Ni-Zn Ferrite
②	Epoxy	Epoxy resin
③	Wire	Enameled copper wire
④	Core	Ni-Zn Ferrite
⑤	Electrode structure	Ag+Ni+Sn plating

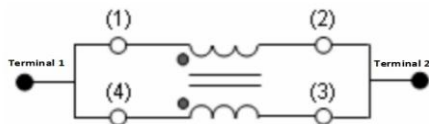


(5)Schematic Diagram

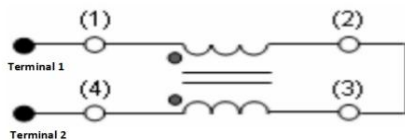


(6)MEASURING CIRCUITS 2 LINE

1) Common mode:



2) Differential mode:



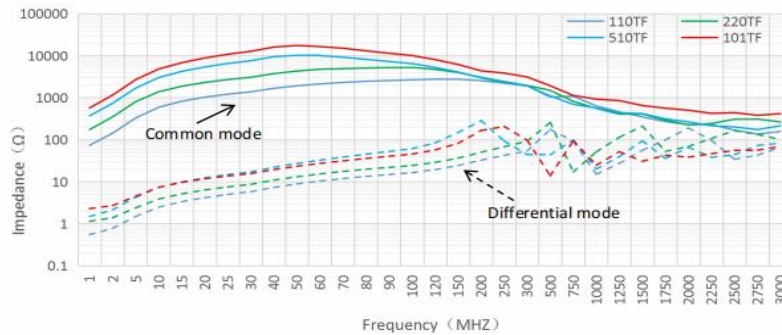
(7)Electrical Characteristics

ASDI Part Number	Inductance @100KHZ/0.1V	Common mode Impedance @10MHZ		DCR (1 line)	IR	Rated Voltage (Vdc)	Irms
	μH	Ω		mΩ	MΩ	V	mA
	+50%/-30%	MIN	TYP	MAX	MIN	MAX	MAX
ASCM4532L-2-110TF	11	300	600	600	10	50	250
ASCM4532L-2-220TF	22	500	1200	1000	10	50	200
ASCM4532L-2-510TF	51	1000	2800	1000	10	50	200
ASCM4532L-2-101TF	100	2000	5800	2000	10	50	150

Notes

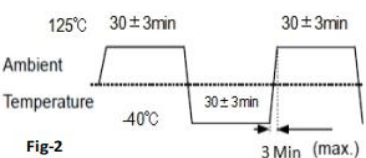
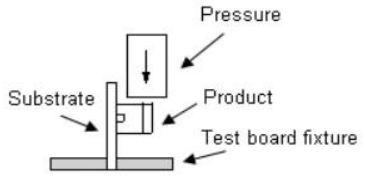
1. All test data is referenced to 25 °C ambient.
2. Operating temperature range - 40 °C to + 125°C(Including self - temperature rise).
3. Irms (A):DC current (A) that will cause an approximate ΔT of 40 °C(reference ambient temperature is 25 °C).
4. The part temperature (ambient + temp rise) should not exceed 125 °C under worst case operating conditions. Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.

(8)Typical impedance vs. frequency



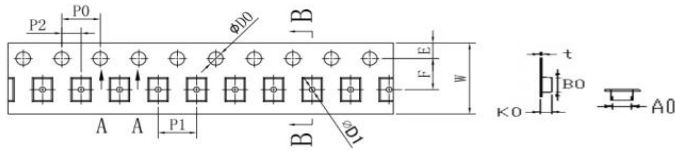
(9)Reliability Test

Items	Requirements	Test Methods and Remarks
Operating life	1. No visible mechanical damage 2. Inductance change: Within±20% 3. Insulation resistance: 10MΩ min	1. Reflow 2 times 2. temperature: 155± 2 °C
Resistance to Soldering Heat	1. No visible mechanical damage 2. Inductance change: Within±20%	1. Solder on PCB to Reflow test Peak Temp. 260±5°C 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.
		<p>Fig-1</p>
High Temperature	1. No visible mechanical damage 2. Inductance change: Within20%. 3. Insulation resistance: 10MΩ min	1. Temperature: 125±2°C 2. Duration: 1000 hours 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: Within±20% 3. Insulation resistance: 10MΩ min	1. Temperature:85°C 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: Within±20%	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: Within $\pm 20\%$ 3.Insulation resistance: 10M Ω min	1.Temperature and time: -40°C for 30 ± 3 min $\rightarrow 125^{\circ}\text{C}$ for 30 ± 3 min, 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.  <p>Fig-2</p>
Salt Spray	1.No visible mechanical damage 2.Inductance change: Within $\pm 20\%$	1. Salt concentration: $(5 \pm 1)\%$ (mass percent) 2. pH value: 6.5 - 7.2 3. temperature: $35 \pm 2^{\circ}\text{C}$ 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 $\pm 10\%$.
Terminal strength	No visible mechanical damage	1. The electrode of the inductor is soldered to the PCB, to Fig-3 Then apply a force in the direction of the arrow. 2. 10N force. 3. Keep time: 10(± 1)s 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. 

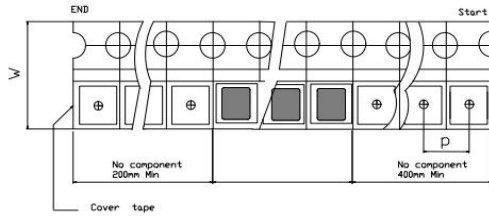
(10)Packaging Information

10-1,Tape Packaging Dimensions(Unit: mm)

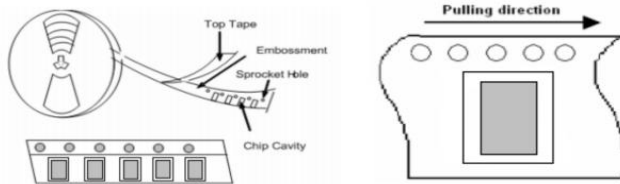


Type	W	P1	A0	B0	K0	t	E	F	P2	D0	D1	P0
ASCM4532L	12.00 ±0.10	8.00 ±0.10	3.55 ±0.10	4.85 ±0.10	3.05 ±0.10	0.30 ±0.05	1.75 ±0.10	5.50 ±0.10	2.00 ±0.10	1.55 ±0.05	1.55 ±0.05	4.00 ±0.10

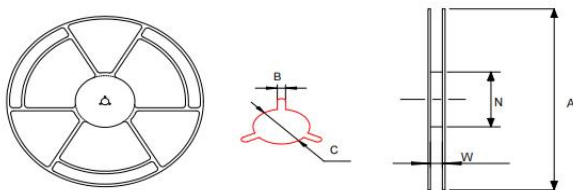
10-2,Leader and blank portion



10-3,Taping Drawings



10-4,Reel Dimensions (Unit: mm)



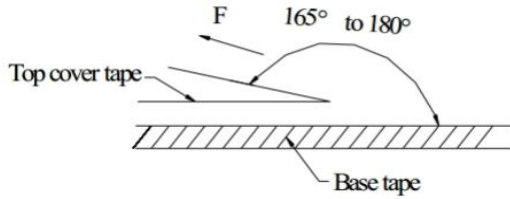
A	W	N	B	C
330±2.0	12.8±0.2	97±0.5	2.2±0.5	13.0±0.2

10-5,Packaging Quantity(PCS)

Type	Standard Quantity		
	Reel	Inner box	Carton box
ASCM4532L	2000 pcs / Reel	Reel 4Reel / box (8000 pcs)	4 Middle boxes, (32000 pcs)

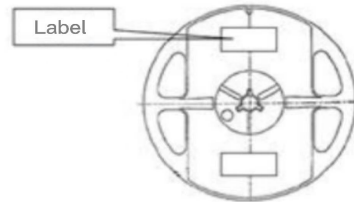
10-6, Peel force of top cover tape

The peel speed shall be about 300mm/minute.
 The peel force of top cover tape shall be between 10 to 100gf.



10-7, Reel Label

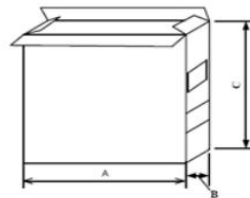
- Label on the reel
- Customer's part Number
- Lot Number
- Quantity
- Date code



- Shipping Label
- Customer's part Number
- Manufacturer's part Number
- Quantity
- Date code

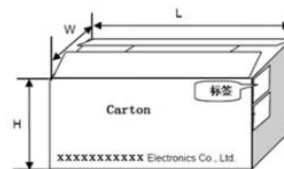
10-8, Inner Box

Packing Type	A (mm)	B (mm)	C (mm)
Inner Box	335	70	340



10-9, Carton

Packing Type	L (mm)	W (mm)	H (mm)
Carton	360	360	360



(11)Note

·Storage Conditions

To maintain the solderability of terminal electrodes:

1. ASDI products meet IPC/JEDEC J-STD-020D standard-MSL, level 1.
2. Temperature and humidity conditions: Temperature: 5 to 30deg.C, Humidity: 75% Max.
3. Recommended products should be used within 12 months form the time of delivery.
4. The packaging material should be kept where no chlorine or sulfur exists in the air.

·Transportation

1. Products should be handled with care to avoid damage or contamination from perspiration and skin oils.
2. The use of tweezers or vacuum pick up is strongly recommended for individual components.
3. Bulk handling should ensure that abrasion and mechanical shock are minimized.

单击下面可查看定价，库存，交付和生命周期等信息

[>>ASDI](#)