

RoHS & Halogen Free & REACH Compliance.

SPECIFICATION FOR APPROVAL

Customer	_____		
Customer P/N	_____		
Drawing no.	C3X2301538		
Quantity	X	Pcs.	Date : 2023/12/27
Chilisin P/N	AMMP001010542R2MR6		

Automotive Grade Inductor

Halogen Free

RoHS Compliant

REACH Compliant

Lead Free Solders

AEC-Q200

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Drawn by Irene Fan	Checked by Wayne Wu	Approved by Mark Chung
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REVISIONS

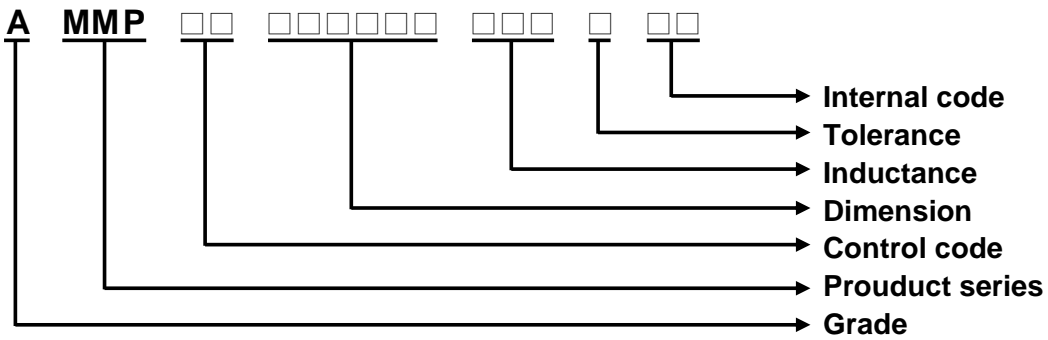
Rev.	Description	Date	Approved by	Checked by	Drawn by
01	Initial release	2022/12/21	Ben Yeh	Mark Chung	Wayne Wu
02	Add specification of SRF	2023/12/27	Mark Chung	Wayne Wu	Irene Fan

AMMP00101054 Series Specification

AEC-Q200

1 Scope This specification applies to large current and low loss SMD power inductor

2 Part numbering

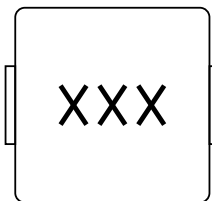


3 Temperature rating

Operating Temperature: -55°C~155°C (including self temperature rise)

Storage Temperature: -20°C to +40°C; 75% RH max. (stored in carrier tape)

4 Marking



Marking color: Black

Marking: 2R2

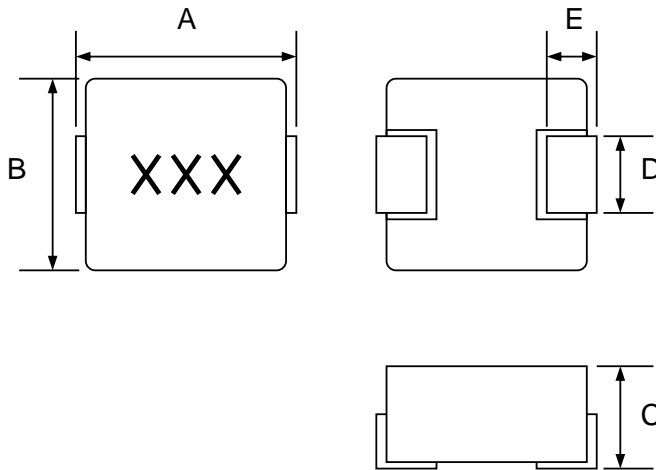
5 Standard testing condition

	Unless otherwise specified	In case of doubt
Temperature	Ordinary Temperature(15 to 35°C)	20 to 30°C
Humidity	Ordinary Humidity(25 to 85% RH)	50 to 80 %RH

AMMP00101054 Series Specification

AEC-Q200

6 Configuration and dimensions



Dimensions in mm

Type	101054
A	11.5 Max
B	10 ± 0.3
C	5.4 Max
D	3.0 ± 0.5
E	2.2 ± 0.3

7 Electrical characteristics

Part number	Inductance (uH)	Tolerance (±%)	Test frequency	I _{rms} (A) Max.(Typ.)	I _{sat} (A) Max.(Typ.)	RDC (mΩ) Max(Typ)	Marking
AMMP001010542R2MR6	2.2	20	100kHz/0.25V	20.7(23)	21.4(25)	4.9(4.1)	2R2

Note:

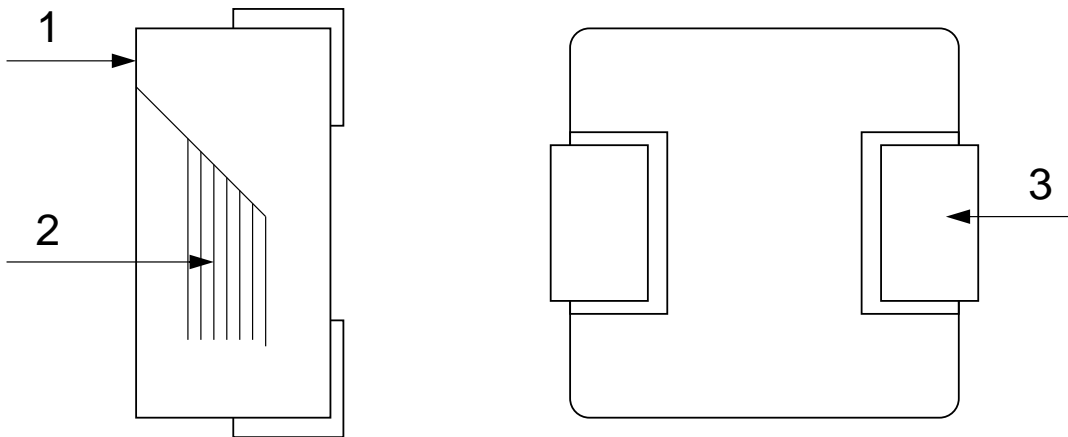
1. The heat rating current (I_{rms}) will cause temperature rise approximate 40°C.
2. The saturation current (I_{sat}) will cause initial inductance drop approximate 30%.
3. All test data is referenced at 25°C ambient.
4. Operating temperature range -55°C to 155°C.
5. The part temperature (ambient + temp rise) should not exceed 155°C under the worst condition.
6. 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 under worst operating conditions.
7. Absolute maximum voltage: 30V DC. (Based on Chilisin's test method, it may not the same under different application, it is recommended to verify first.)
8. SRF: 24.8MHz(Typ)

AMMP00101054 Series Specification

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8 AMMP00101054 series

8.1 Construction



8.2 Material List

Item	Part	Description
1	Magnetic core	Magnetic metal powder
2	Coil	Enameled copper wire
3	Terminals	Copper based terminal

AMMP00101054 Series Specification

AEC-Q200

9 Packaging

9.1 Packaging-cover tape

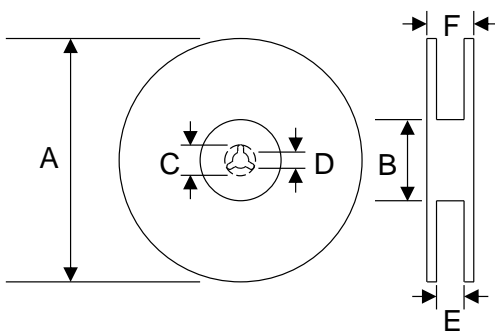
The force for tearing off cover tape is 10 to 130 grams in the arrow direction.



9.2 Packaging quantity

Type	pcs/reel
101054	500

9.3 Reel dimensions



Dimensions in mm

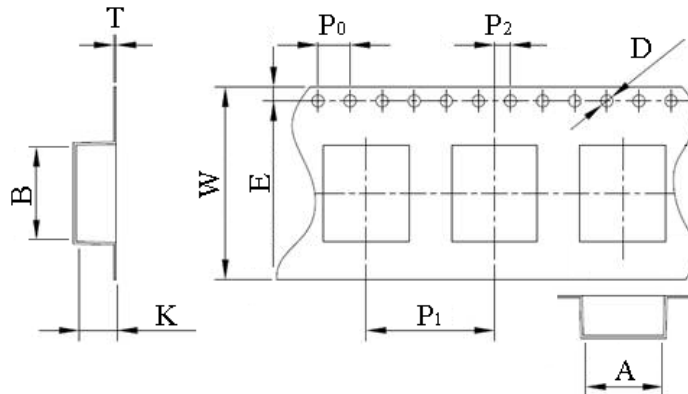
Type	A	B	C	D	E	F
101054	330±2	100±1	21.5±0.5	13±1.0	24.2+2.0/-0	29.2±2

AMMP00101054 Series Specification

AEC-Q200

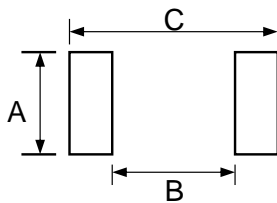
9 Packaging

9.4 Tape dimensions in mm



Type	A	B	W	P ₁	K
101054	10.4±0.1	11.5±0.1	24.0±0.3	16.0±0.1	5.8±0.1
	P ₀	P ₂	D	E	T
	4.0±0.1	2.0±0.1	1.5±0.1	1.75±0.1	0.5±0.05

10 Recommended pattern



Dimensions in mm

Type	A(mm)	B(mm)	C(mm)
101054	4.1	5.4	13.6

11 Note

1. Except a copper pattern of inductor terminals, do not make any through holes/copper pattern in magnetic core area.
2. Do not design/mount any components contact with this product.
3. Moisture sensitivity level (MSL): 1.

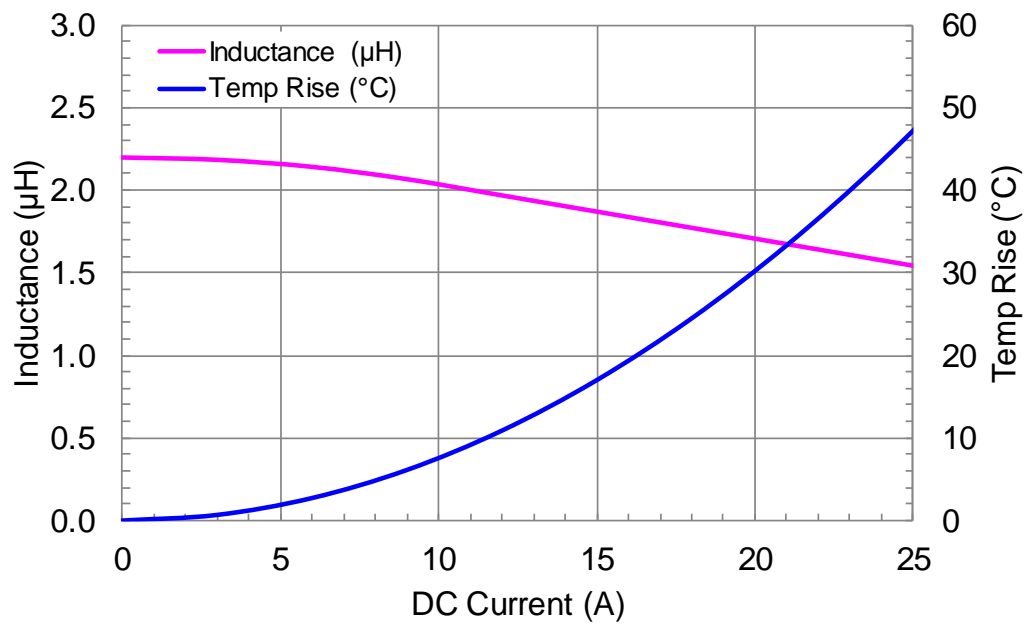
This power inductor does not have any protective function in abnormal condition such as overload, short circuit, open conditions and etc., it shall be confirmed as the end product that there is no risk of smoking, fire, dielectric withstand voltage, insulation resistance etc. in abnormal conditions to provide protective devices and/or protection circuit in the end product.

It is recommended the temperature rise of choke during operation is less than 50°C.

AMMP00101054 Series Specification

AEC-Q200

12 Inductance/temperature rise vs. DC bias current



单击下面可查看定价，库存，交付和生命周期等信息

[>>CHILISIN\(奇力新\)](#)