

Outline:

- Flat wire winding, very low DC resistance, low temperature rise, high efficiency.
- Excellent DC bias capability, capable of handling high instantaneous peak current.
- Low power loss, suitable for applications of wide temperature and frequency range.
- Shield structure to reduce EMI.
- Compact structure with good mechanical strength and installation stability.

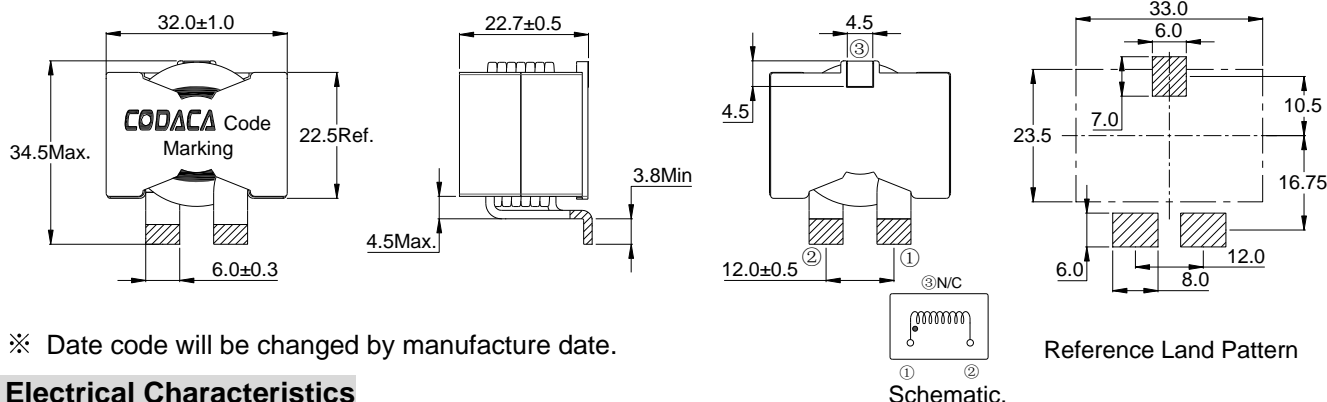
Features:

- Core material: Ferrite.
- Environmental: RoHS compliant, halogen free.
- Weight: 75.5g.
- Moisture Sensitivity: Level (MSL) 1 (Unlimited floor life at <30°C / 85% relative humidity).
- Operating temperature range: -40°C~+125°C. (Including coil's temperature rise).
- Storage temperature range: -40°C~+125°C.

Application:

- Storage inductor for high efficiency DC/DC converters.
- High current power supplies.
- Battery chargers.
- Solar inverter.

1 Product Dimensions (mm)



※ Date code will be changed by manufacture date.

2 Electrical Characteristics

Part No.	Inductance (μ H)※1	D.C.R. (m Ω)		Isat (A)※2	Irms (A)※3
		$\pm 20\%$	Typical Max.		
CSCF3222T-3R3M	3.30	0.95	1.15	98.0	56.0
CSCF3222T-4R7M	4.70	1.25	1.50	79.0	46.0
CSCF3222T-6R8M	6.80	1.60	1.95	61.0	42.0
CSCF3222T-8R2M	8.20	1.95	2.35	57.0	39.0
CSCF3222T-100M	10.0	2.35	2.85	51.0	35.0
CSCF3222T-150M	15.0	3.15	3.80	41.0	30.0
CSCF3222T-220M	22.0	5.45	6.55	36.0	22.0
CSCF3222T-330M	33.0	7.60	9.15	29.0	19.0
CSCF3222T-470M	47.0	11.75	14.10	25.0	15.0
CSCF3222T-560M	56.0	11.75	14.10	21.0	15.0

All data is tested on 25°C ambient temperature

1. Inductance measure condition at 100kHz, 0.1V.
2. Isat: the actual value of DC current when the Inductance decrease 20% of its initial Value.
3. Irms: The actual value of DC current when the Temperature rise is $\Delta T 40^\circ\text{C}$ ($T_a = 25^\circ\text{C}$)

3 How to Order

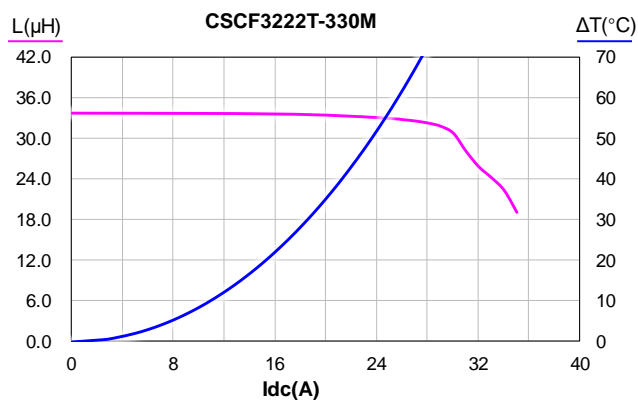
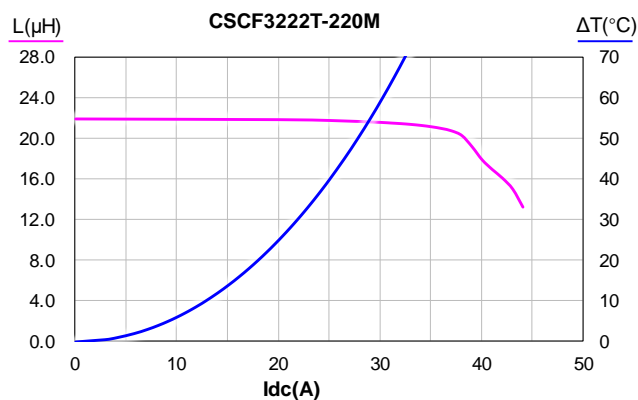
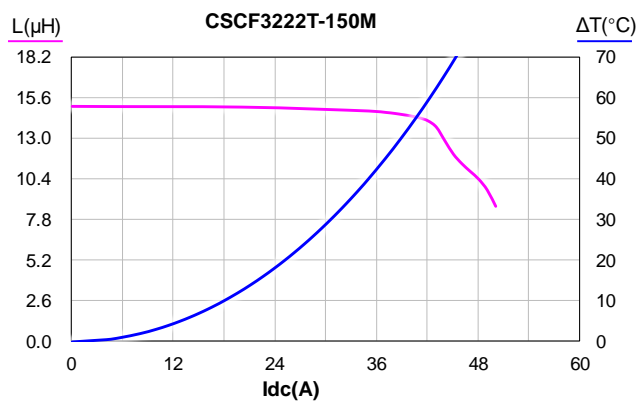
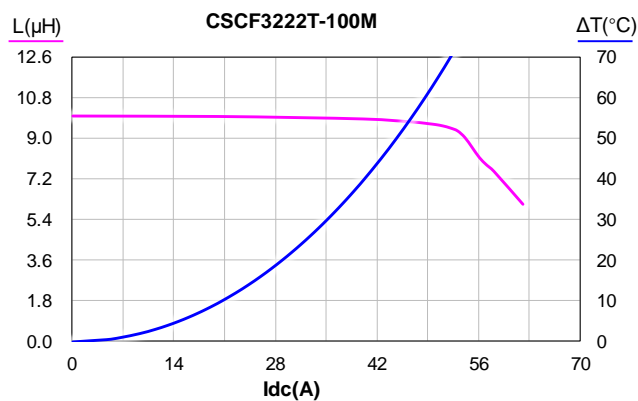
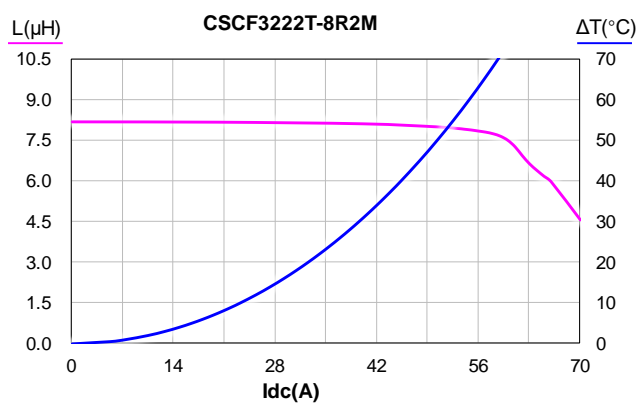
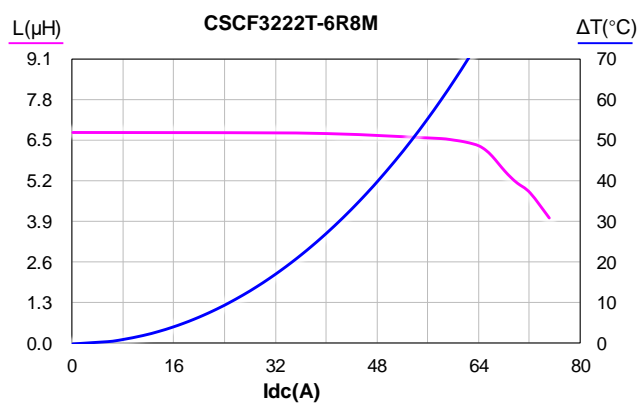
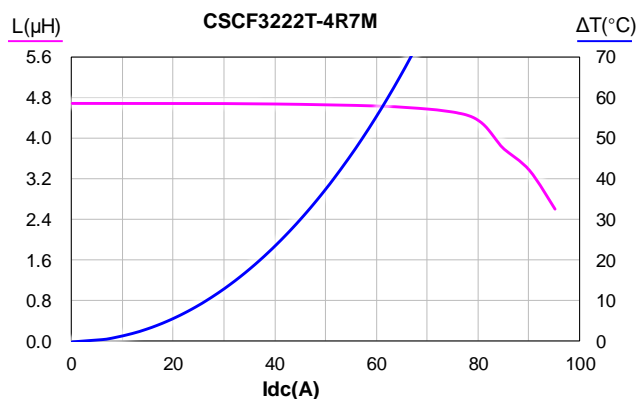
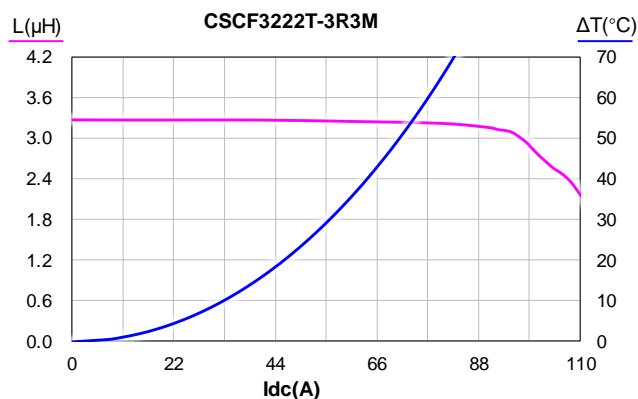
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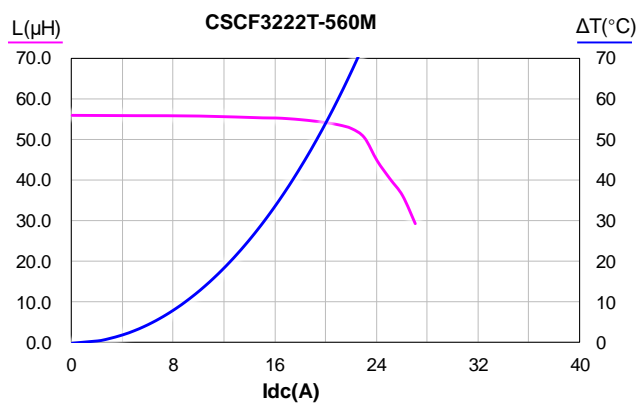
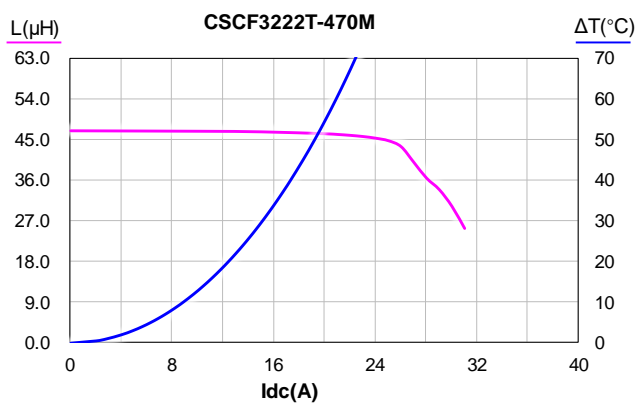
Model

Dimensions

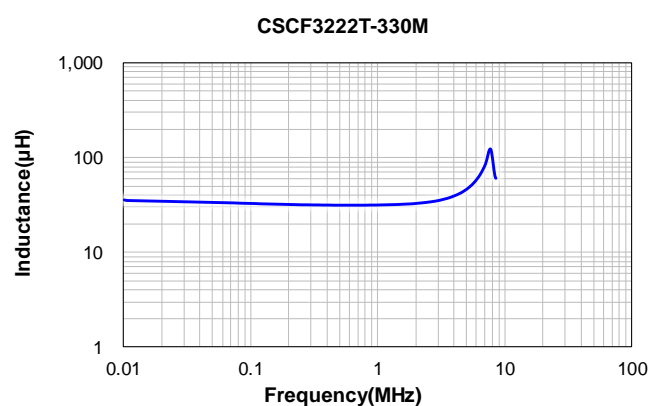
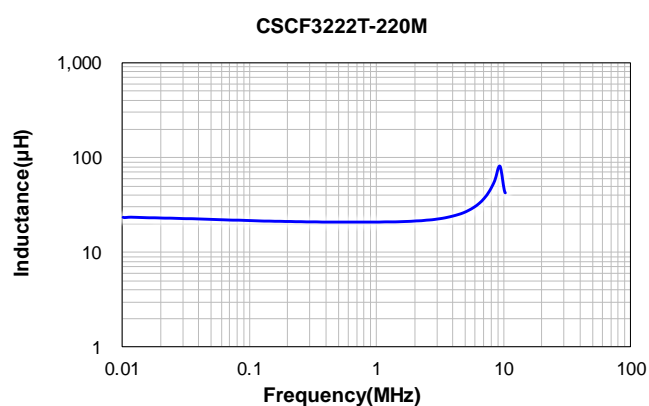
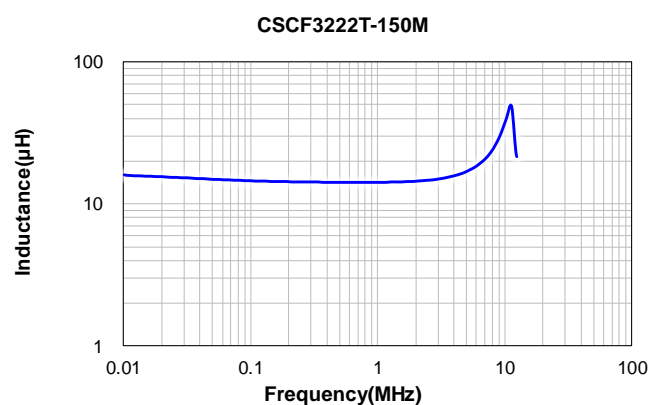
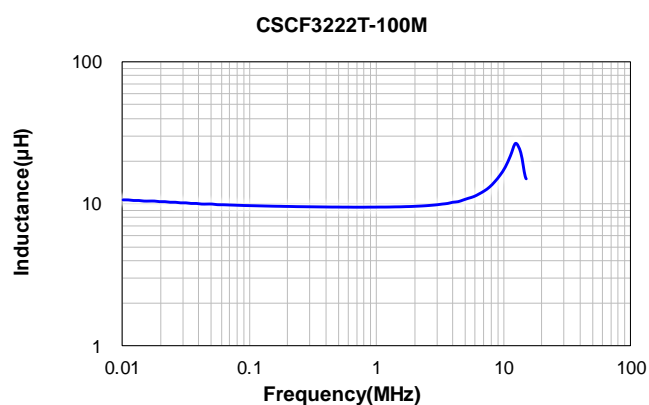
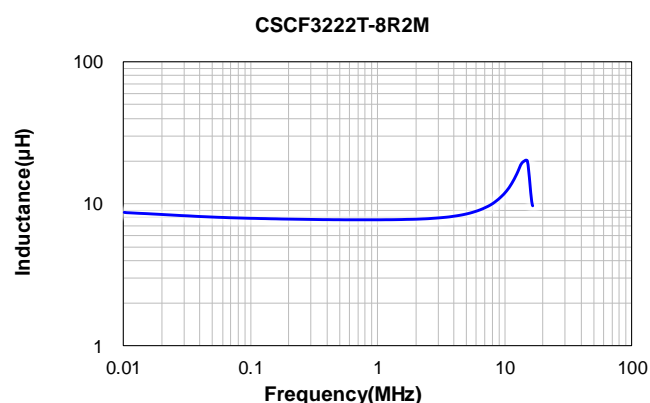
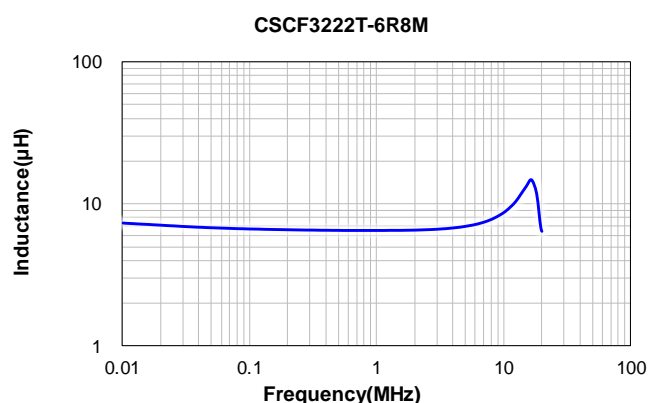
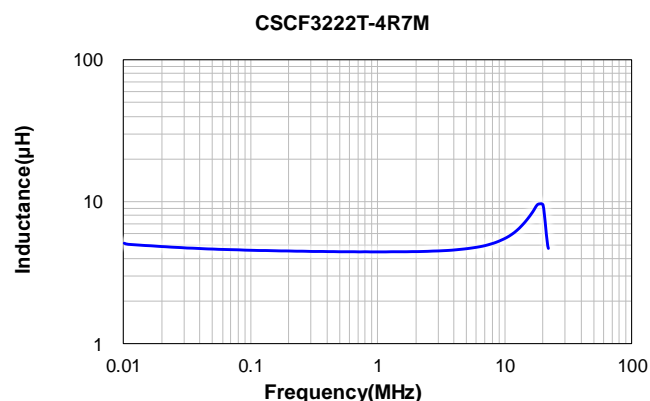
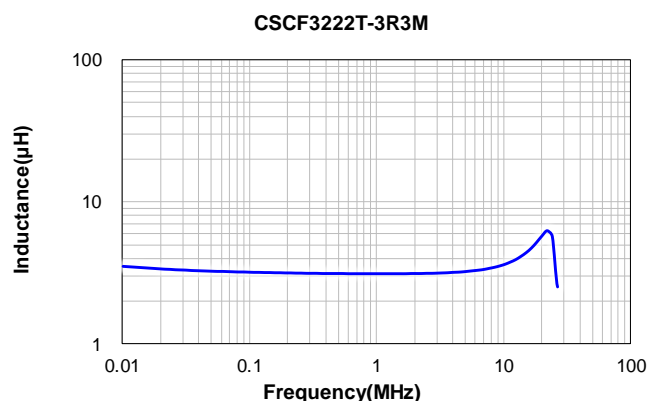
Value Code

4 Saturation Current vs Temperature Rise Current Curve

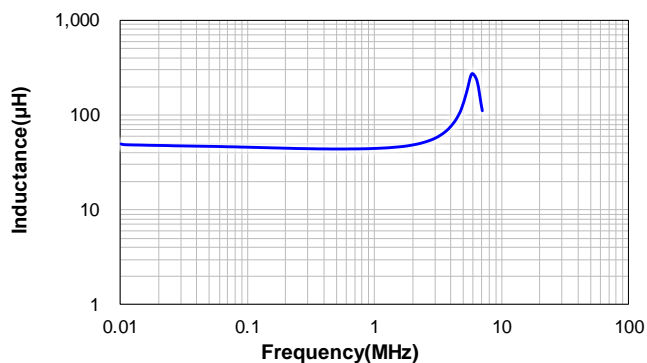




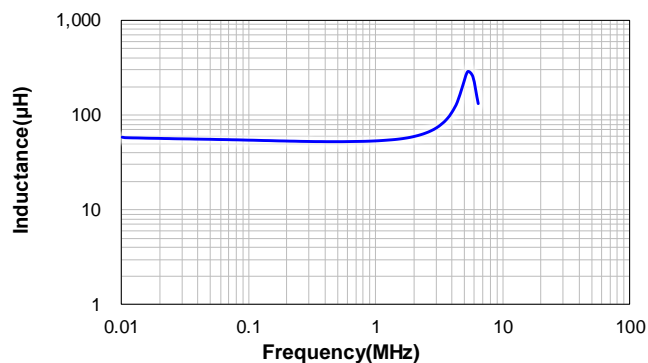
5 Inductance vs Frequency Curve



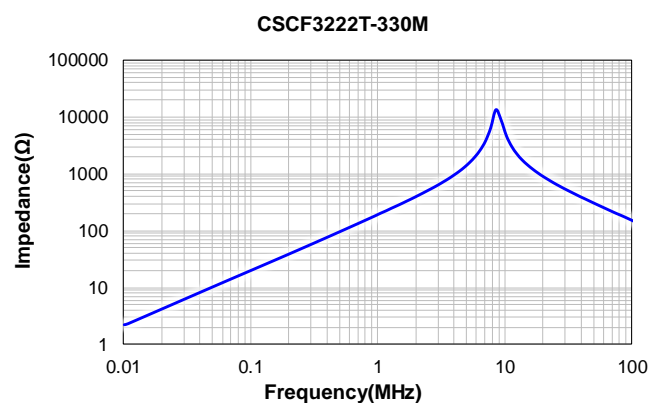
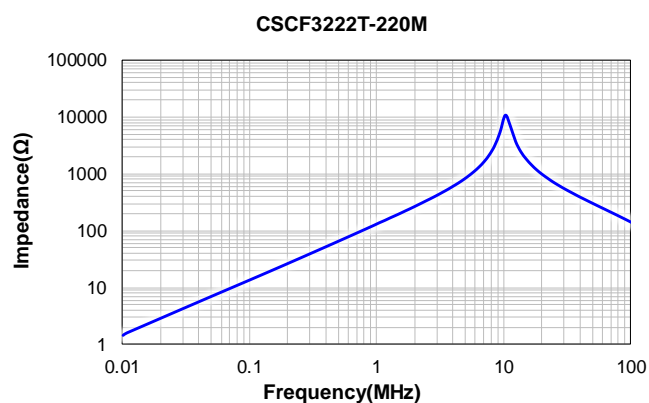
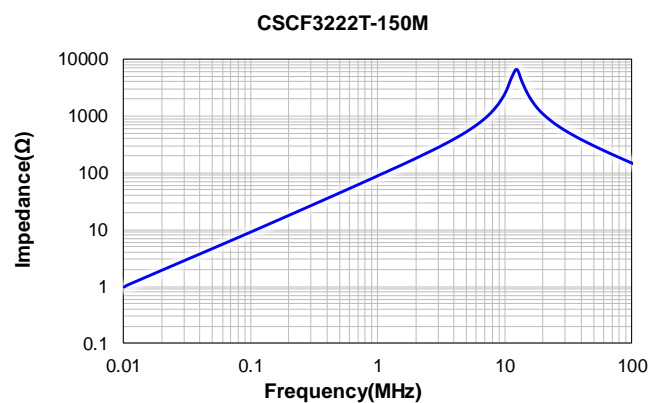
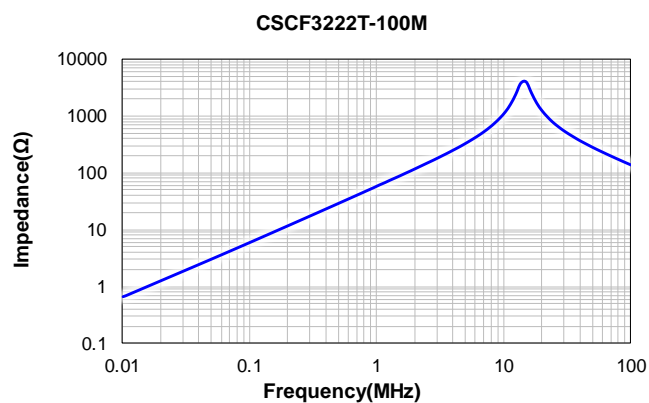
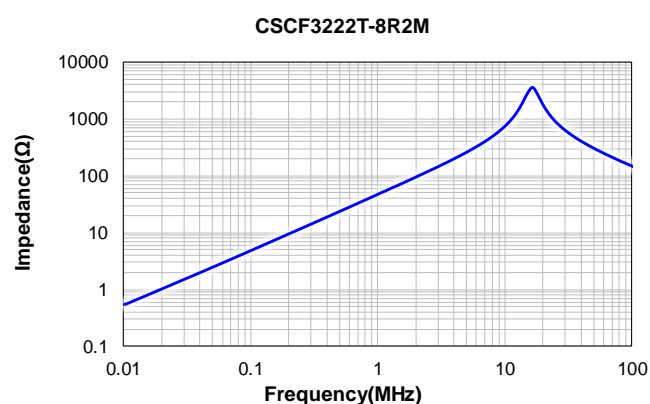
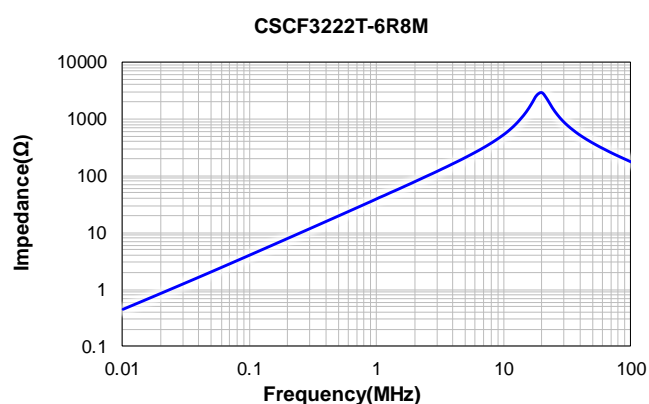
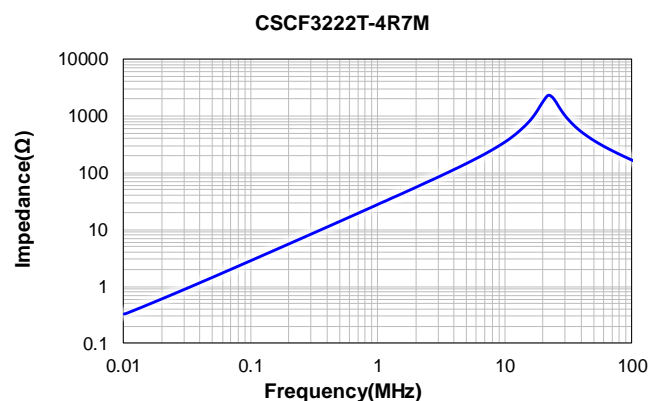
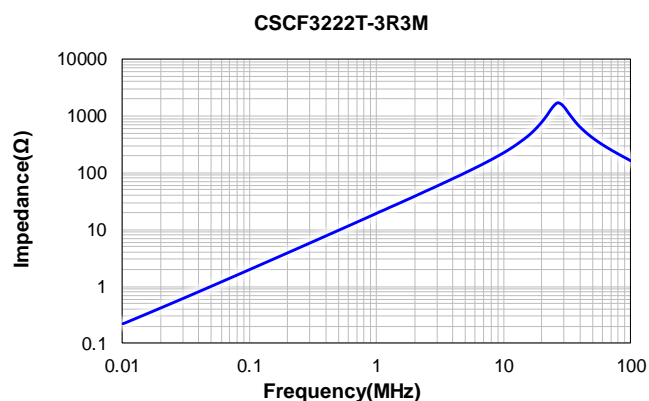
CSCF3222T-470M



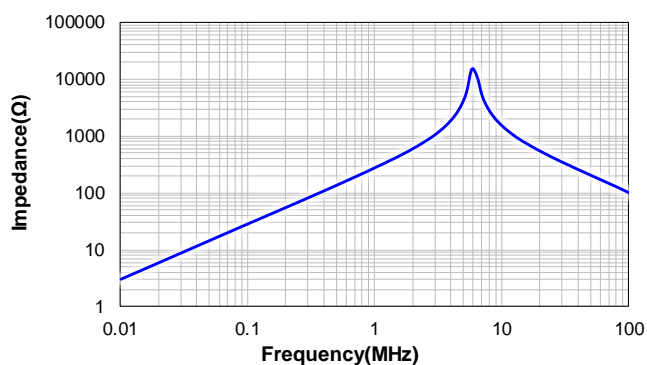
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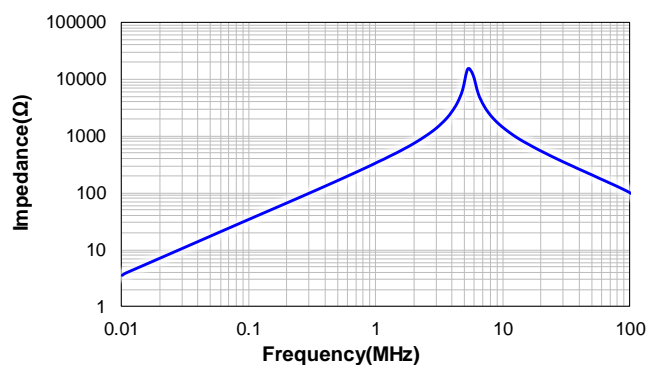
6 Impedance vs Frequency Curve



CSCF3222T-470M

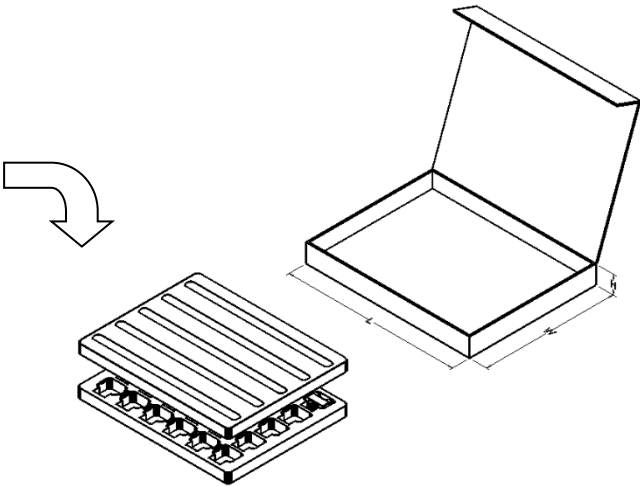
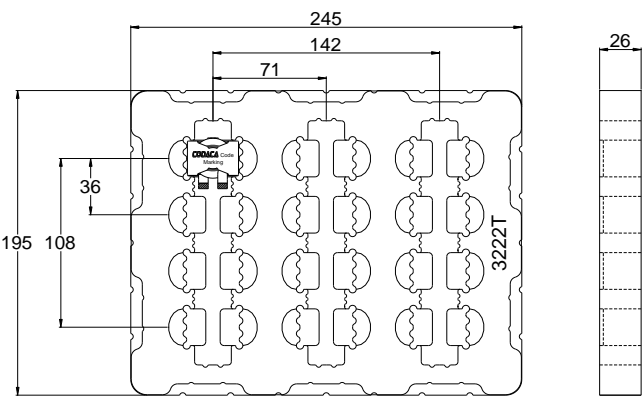


CSCF3222T-560M



7 Packing Specification

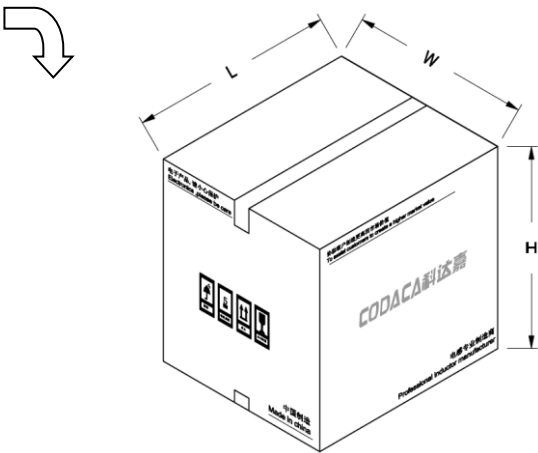
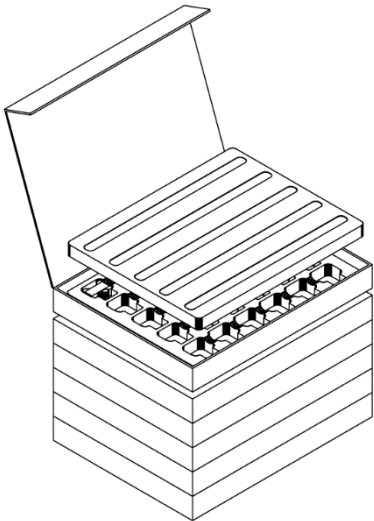
7.1 Plastic Tray Dimensions (mm)



Packaging Unit (Pcs)	Material
12	APET

L typ	W typ	H typ	No. of Tray (Pcs)	Packaging Unit(Pcs)	Material
265	205	32	1	12	Paper

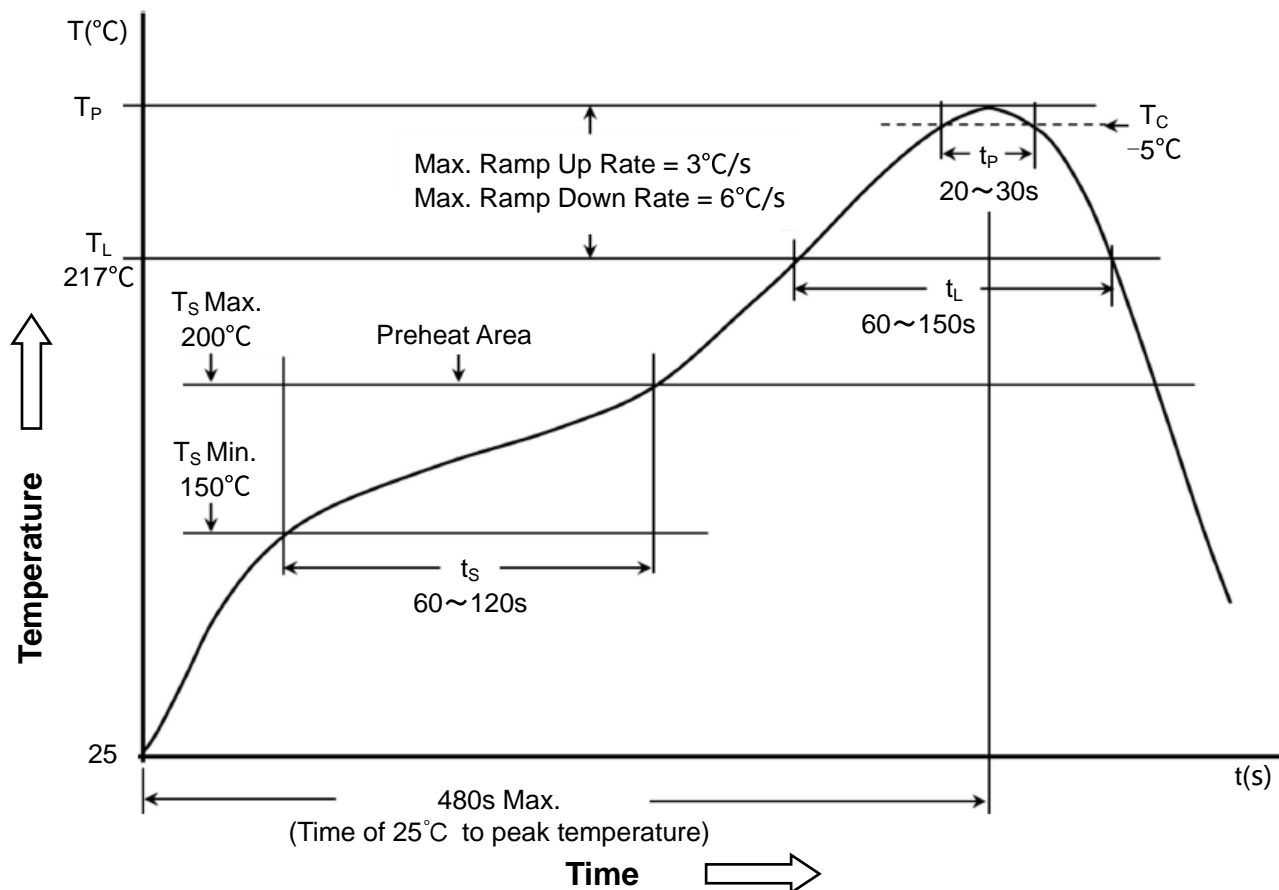
7.2 Packing(mm)



L typ	W typ	H typ	No. of Inner Carton(Pcs)	Packaging Unit(Pcs)	Material
275	232	261	7	84	Paper

8 Soldering Specification

8.1 Reflow Profile for SMT Components



8.2 Classification of Peak Package Body Temperature (Tp)

	Package Thickness	Package Volume		
		<350 mm ³	350~2000 mm ³	>2000 mm ³
PB-Free Assembly	<1.6mm	260°C	260°C	260°C
	1.6~2.5mm	260°C	250°C	245°C
	≥2.5mm	250°C	245°C	245°C

※ Reflow is referred to standard IPC/JEDEC J-STD-020E.

9 Notice of Use

- 9.1 Special reminder: circuit design, component placement, PCB size and thickness, cooling system, etc., all will affect the product temperature. Please verify the product temperature in the final application.
- 9.2 Product in packing storage condition: $< 30^{\circ}\text{C}$, $< 85\%\text{RH}$.
If taken out for use, the remaining products should be sealed in plastic bags and preserved in accordance with the above conditions, to avoid oxidation of terminal (electrodes), affecting soldering status.
- 9.3 A storage of Codaca electronic products for longer than 12 months is not recommended. Within other effects, the terminals may suffer degradation, resulting in bad solderability. Therefore, all products shall be used within the period of 12 months based on the day of shipment.
- 9.4 Do not keep products in unsuitable storage conditions, such as areas susceptible to high temperatures, high humidity, dust, or corrosion.
- 9.5 Always handle products with care.
- 9.6 Don't touch electrodes directly with bare hands as oil secretions may inhibit soldering.
Always ensure optimum conditions for soldering.
- 9.7 When this product will be used on a similar or new project to the original one, sometimes it might be unable to satisfy the specifications due to different conditions of usage.
- 9.8 This inductor itself does not have any protective function in abnormal condition, such as overload, short-circuit, open-circuit conditions, etc. Therefore, it shall be confirmed that there is no risk of smoke, fire, dielectric withstand voltage, insulation resistance, etc., in abnormal conditions protective devices or protection circuit in the end product.
- 9.9 Hi-Pot test with higher voltage than spec value will damage insulating material and shorten its life.
- 9.10 If used in potting compound, the magnet wire coating might be damaged, please consult with us.
- 9.11 Refrain from rinsing product. If necessary, please consult with us.
- *9.12 Codaca electronic products without "V" prefix are qualified for industrial product requirements, and with "V" prefix are qualified for AEC-Q200, but it doesn't mean that Codaca electronic products can absolutely meet specific industry norms and quality test standards in automotive electronics or more strict application fields. Codaca electronic will be exempted from being responsible for the consequences of using Codaca products in automotive electronics or higher application fields related to safety when without being aware of it.