POWER | PROTECT | CONNECT

SERIES: F2D3-1265 | DESCRIPTION: HIGH CURRENT POWER INDUCTORS

FEATURES

- Composite core
- Moisture Sensitivity: Level (MSL) 1
- Magnetic shielded structure: excellent resistance to electro magentic interference (EMI)
- Operating temperature -40°C to 125°C

signal TRANSFORMER a bel group

MODEL

MODEL	Inductance (Lo) typ [µH]	Tolerance typ [± %]	DC Resistance (DCR) max [mΩ]	Saturation Current (Isat) typ [A]	Temperature Rise Current (Irms) typ [A]
F2D3-1265-1R0M	1.00	20	1.75	40.0	24.0
F2D3-1265-1R5M	1.50	20	2.65	32.0	20.0
F2D3-1265-2R2M	2.20	20	3.50	26.0	17.0
F2D3-1265-2R6M	2.60	20	4.60	24.0	15.0
F2D3-1265-3R3M	3.30	20	5.90	21.0	13.0
F2D3-1265-4R7M	4.70	20	7.10	18.0	12.0
F2D3-1265-5R6M	5.60	20	9.40	16.5	11.0
F2D3-1265-6R8M	6.80	20	10.6	15.0	9.50
F2D3-1265-8R0M	8.00	20	12.5	13.5	8.50

Notes:
1. *Referenced ambient temperature 25°C*
2. *Test Condition: 100 kHz, 0.5 Vrms*
3. *Saturation Current - Isat: DC current (A) that will cause L0 to drop approximately 20%*
   Temperature Rise Current - Irms: DC current (A) that will cause an approximate ΔT of 40°C
4. *Operating temperature range includes self-temperature rise*

PART NUMBER KEY

F2D3 - 1265 - XXX XX

Type / Product Series
F2D3-1265 = High Current Power Inductors

Inductance *
1R0 = 1.0 µH

Inductance Tolerance
M = ±20%

** Note: Inductance expressed by three figures. The unit is micro henry (µH). The first and second figures are significant digits, the third figure expresses the number of zeros which follow the two figures. If there is a decimal point, it is expressed by the capital letter "R" (3R8 = 3.8 µH). In that case, all figures are significant digits.*

Please read our datasheet & drawing disclaimer here.

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SAFETY AND COMPLIANCE

Parameter	Compliant
RoHS	Compliance with ROHS, Reach compliant and Halogen Free

ENVIROMENTAL

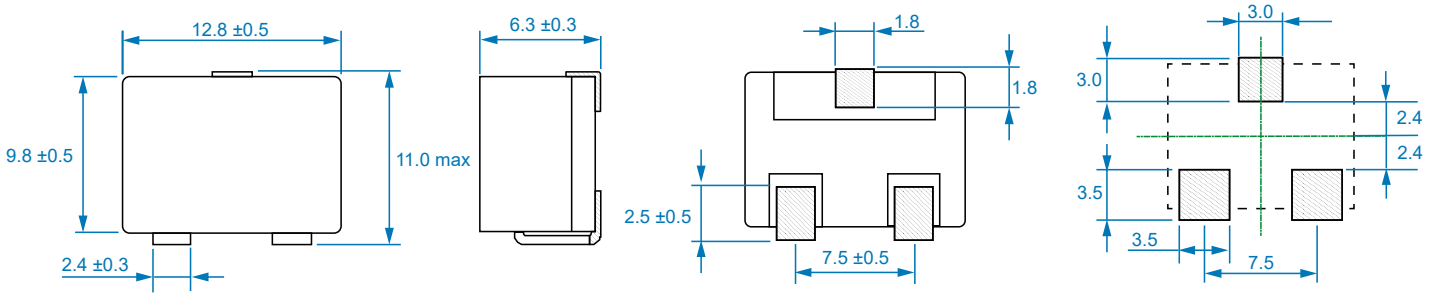
Parameter	Conditions	Min	Typ	Max	Units
Operating temperature	Including coils self-temeprature rise	-40		125	°C
Storage temperature		-40		125	°C

MECHANICAL

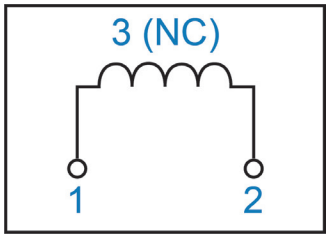
Parameter	Conditions	Min	Typ	Max	Units
Core material	Composite				
Dimensions	12.8 x 11.0 x 6.3				mm
Weight	3.91				g

MECHANICAL DRAWING

Units: mm



ELECTRICAL DIAGRAM



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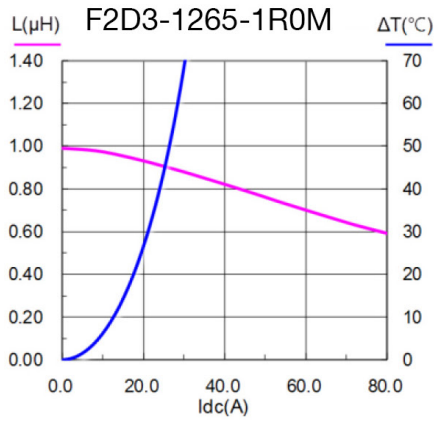
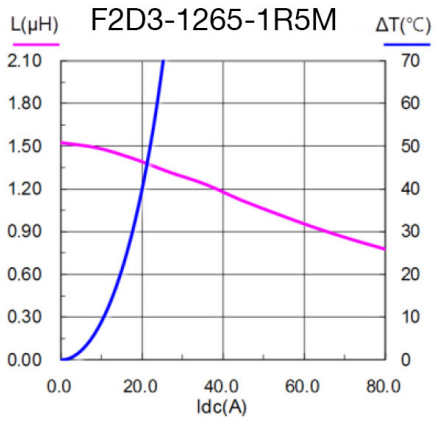
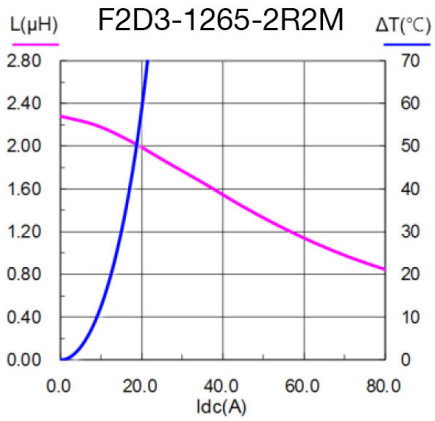
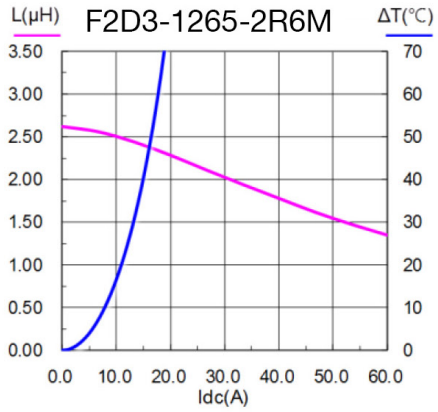
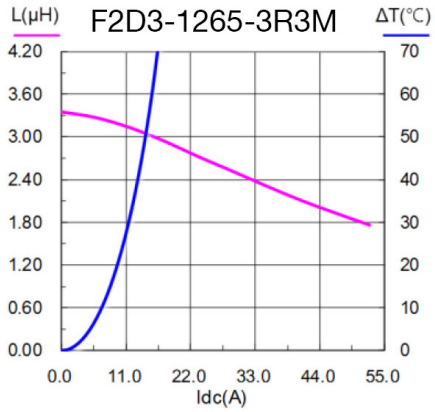
PERFORMANCE CURVES

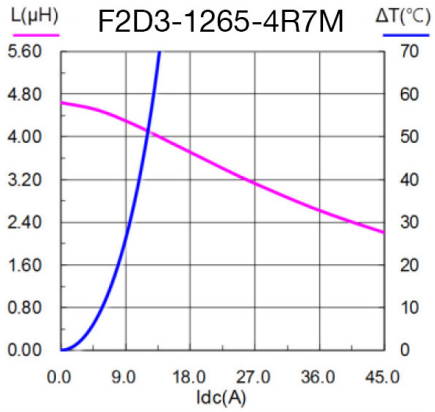


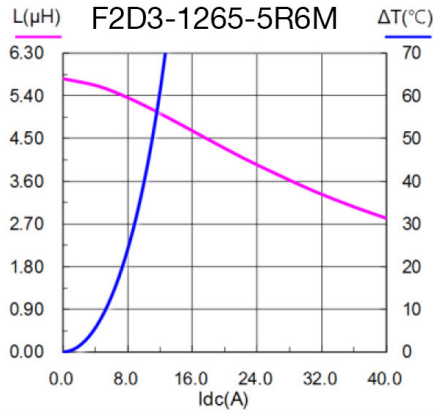


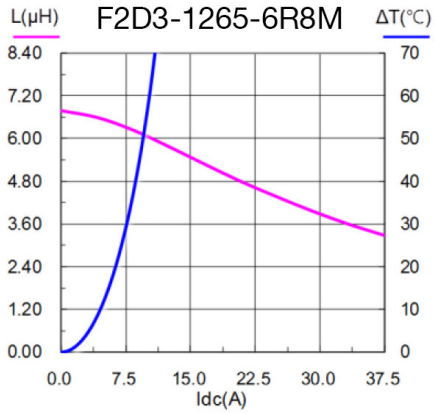


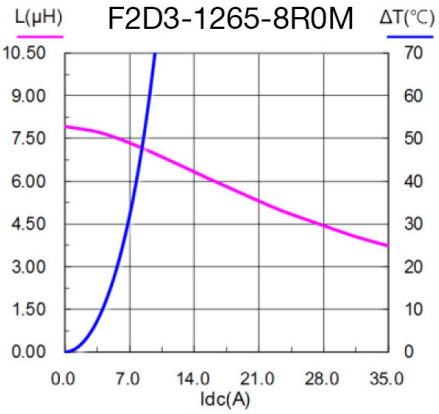












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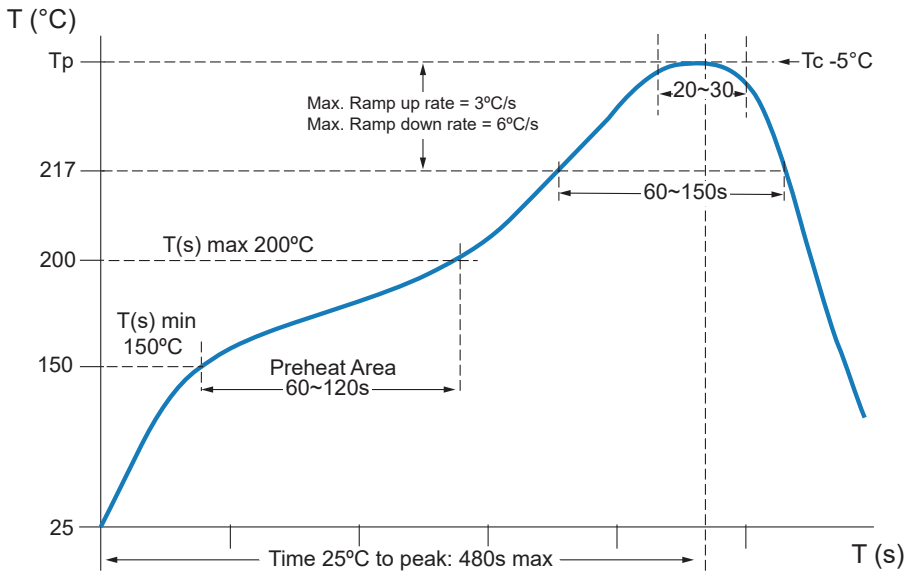
REFLOW SOLDERING TEMPERATURE CURVE

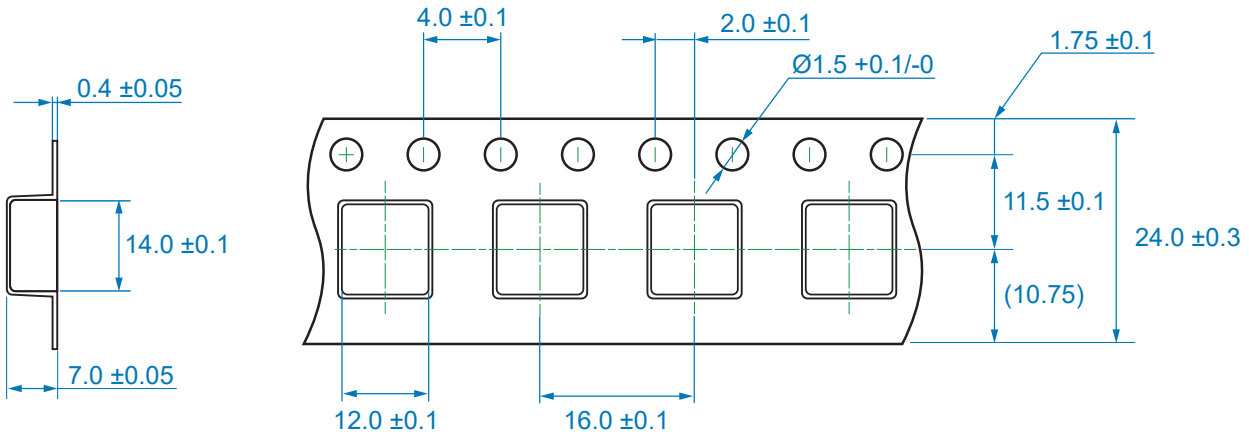


CLASSIFICATION OF PEAK PACKAGE BODY TEMPERATURE

	Package Thickness	Package Volume		
		< 350 mm³	350 ~ 2000 mm³	> 2000 mm³
PB-Free Assembly	< 1.6 mm	260 °C	260 °C	260 °C
	1.6 ~ 2.5 mm	260 °C	250 °C	245 °C
	≥ 2.5 mm	250 °C	245 °C	245 °C

QUANTITY PER REEL & PACKING INFORMATION

Units: mm



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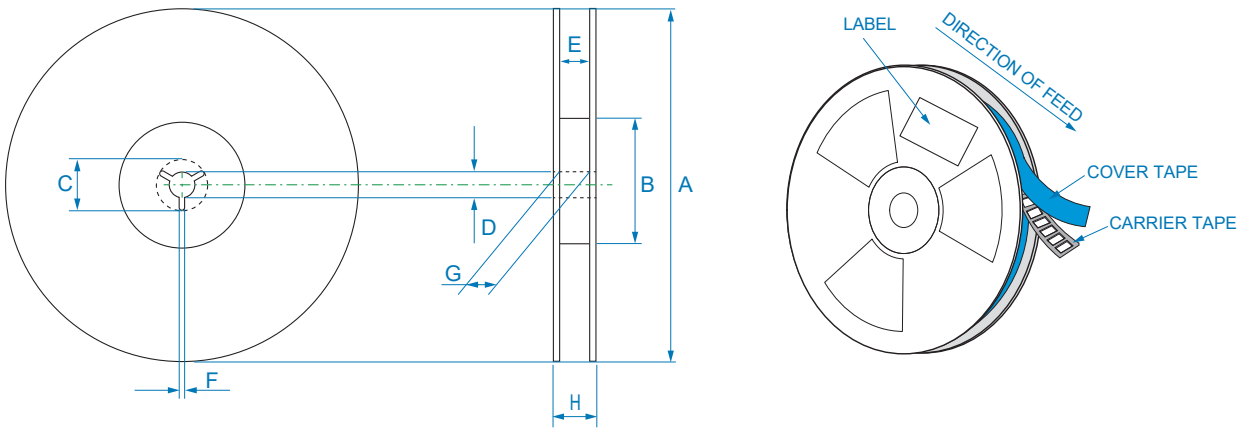
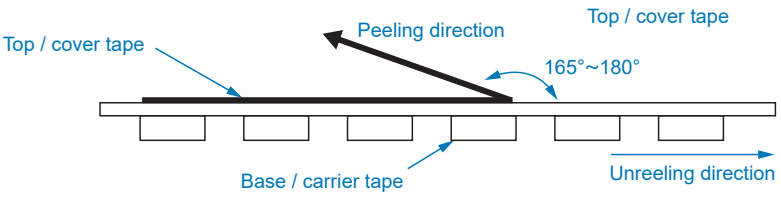


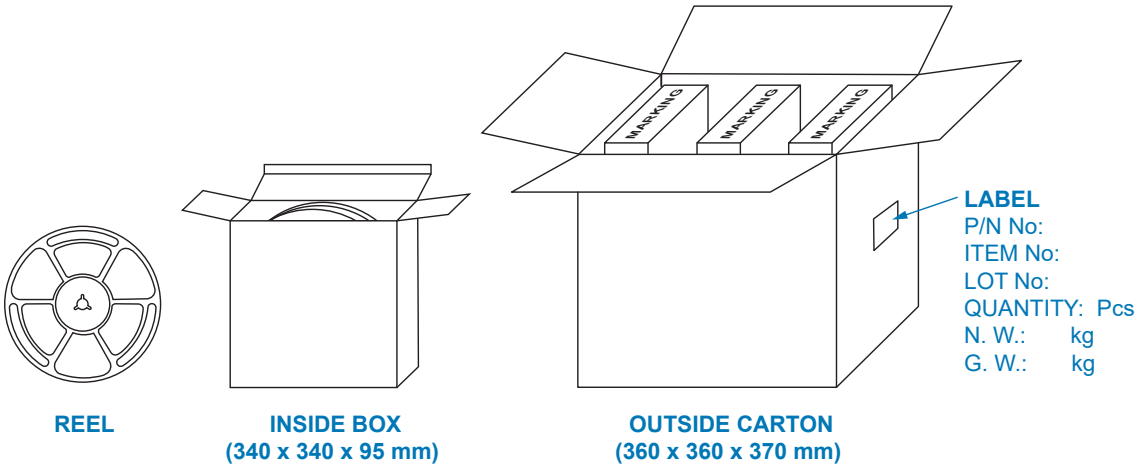
REEL DIMENSIONS (mm)

Product Series	A	B	C	D	E	F	G	H
F2D3-1265	330 ± 2.0	100 min	21.0 ± 0.8	13.0 ± 0.5	23.90 min	2.0 ± 0.5	24.4 +2.0/-0	30.40 max



Peel-off Force

The peel-off speed shall be about 300 ±10 mm/min.
The peel-off force of top cover tape shall be between 0.1 to 1.3 N.



QUANTITY PER PACKAGE

Product Series	Pcs per Reel	Pcs per Inside Box	Pcs per Outside Carton
F2D3-1265	400	800	2400

Storage Conditions

a) Product in packing storage condition: temperature 5 ~ 40 °C, RH ≤ 70 %.
b) Avoid storing in environments prone to high temperatures, excessive humidity, dust, or corrosion.

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REVISION HISTORY

Rev.	Description	Date
1	initial release	November/22/2024

NUCLEAR AND MEDICAL APPLICATIONS - Products are not designed or intended for use as critical components in life support systems, equipment used in hazardous environments, or nuclear control systems.

TECHNICAL REVISIONS - The appearance of products, including safety agency certifications pictured on labels, may change depending on the date manufactured. Specifications are subject to change without notice.

POWER | PROTECT | CONNECT

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