

SERIES: F2D5-2580 | DESCRIPTION: HIGH CURRENT POWER INDUCTORS

FEATURES

- Ferrite core
- Moisture Sensitivity: Level (MSL) 1
- Small volume, high current, low magnetic loss, low ESR, small parasitic capacitance
- Operating temperature -40°C to 125°C



MODEL	Inductance (Lo) typ [μH]	Tolerance typ [± %]	DC Resistance (DCR) max [mΩ]	Saturation Current (Isat) typ [A]	Temperature Rise Current (Irms) typ [A]
F2D5-2580-1R5M	1.50	20	2.00	60.0	28.0
F2D5-2580-3R3M	3.30	20	3.00	38.0	26.0
F2D5-2580-4R7M	4.70	20	3.00	30.0	26.0
F2D5-2580-6R8M	6.80	20	3.70	23.0	23.0
F2D5-2580-100M	10.0	20	5.60	20.0	18.0
F2D5-2580-150M	15.0	20	8.76	15.5	15.0
F2D5-2580-220M	22.0	20	8.76	11.5	15.0
F2D5-2580-330M	33.0	20	8.76	8.50	15.0
F2D5-2580-560M	56.0	20	8.76	4.30	15.0

- Notes:
- Referenced ambient temperature 25°C
 - Test Condition: 100 kHz, 0.1 Vrms
 - Saturation Current - Isat: The actual value of DC current (A) when the Inductance decrease 30% of its initial value.
Temperature Rise Current - Irms: The actual value of DC current (A) when the Temperature rise is ΔT 40°C ($T_a = 25^\circ\text{C}$)
 - Operating temperature range includes self-temperature rise.
 - Important Reminder: The product temperature can be influenced by various factors such as circuit design, component placement, PCB size and thickness, and the cooling system. Please ensure to verify the product temperature in its final application.

PART NUMBER KEY

F2D5 - 2580 - XXX X

Type / Product Series

F2D5-2580 = 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.

SAFETY AND COMPLIANCE

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

ENVIROMENTAL

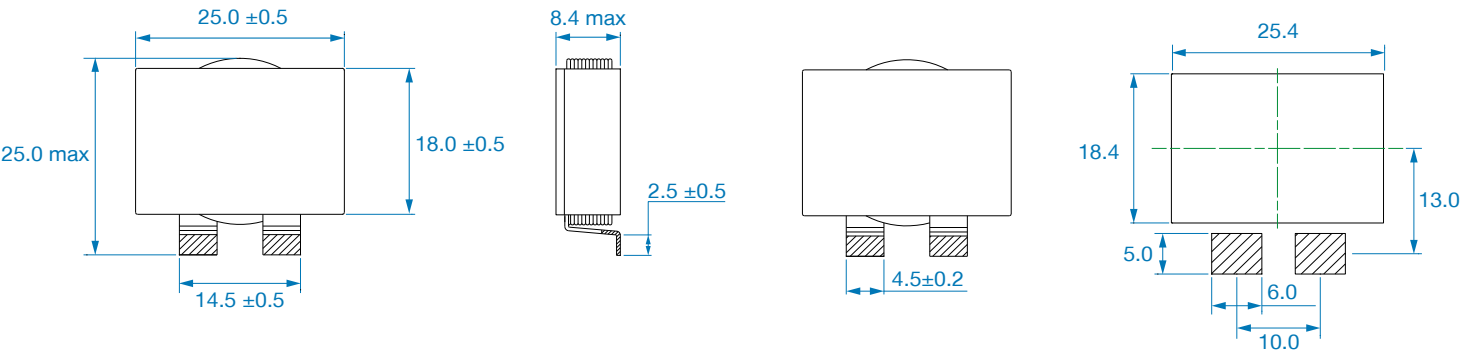
Parameter	Conditions	Min	Typ	Max	Units
Operating temperature	Including coils self-temeprature rise	-40		125	°C
Storage temperature		-40		125	°C

MECHANICAL

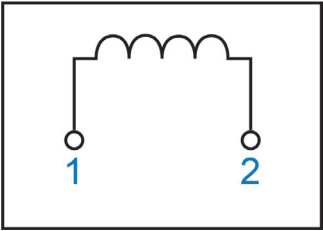
Parameter	Conditions	Min	Typ	Max	Units
Core material	Ferrite				
Dimensions	25.0 x 25.0 x 8.4				mm

MECHANICAL DRAWING

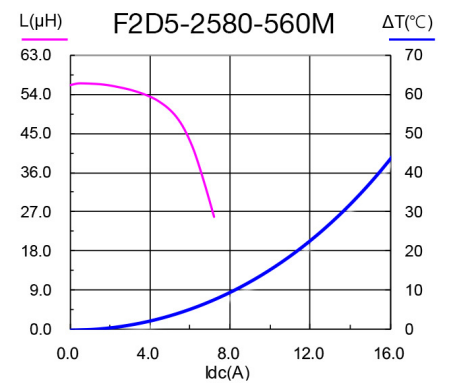
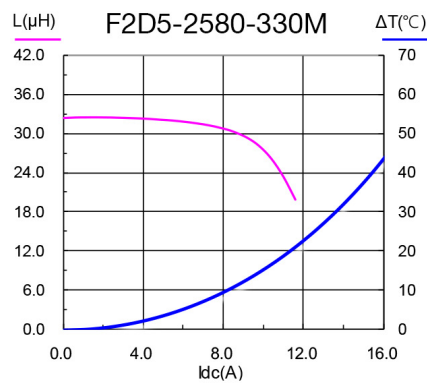
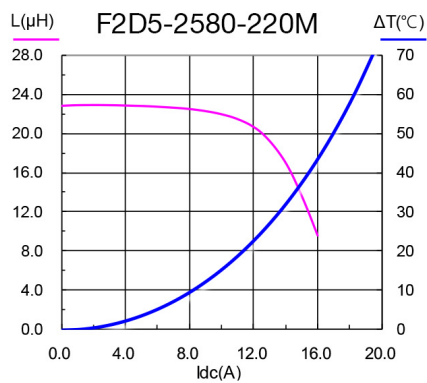
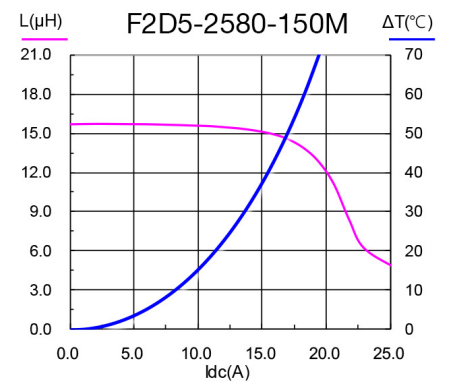
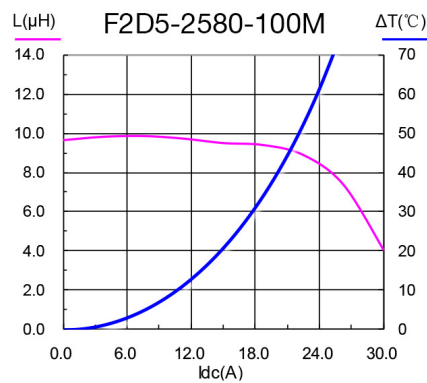
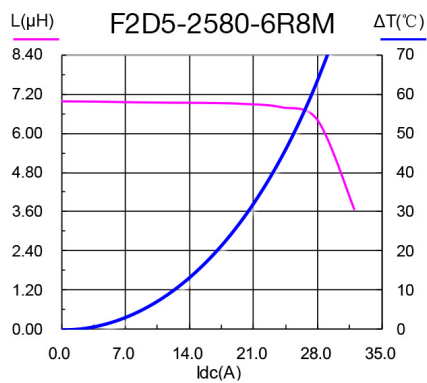
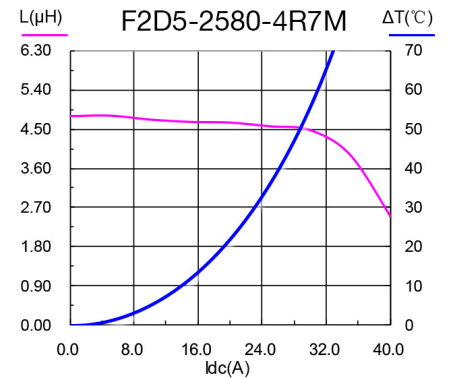
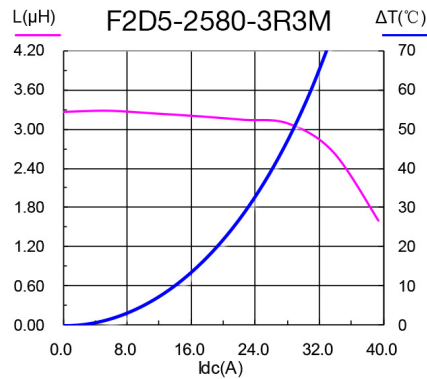
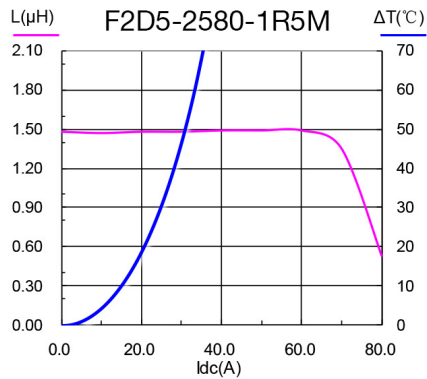
Units: mm



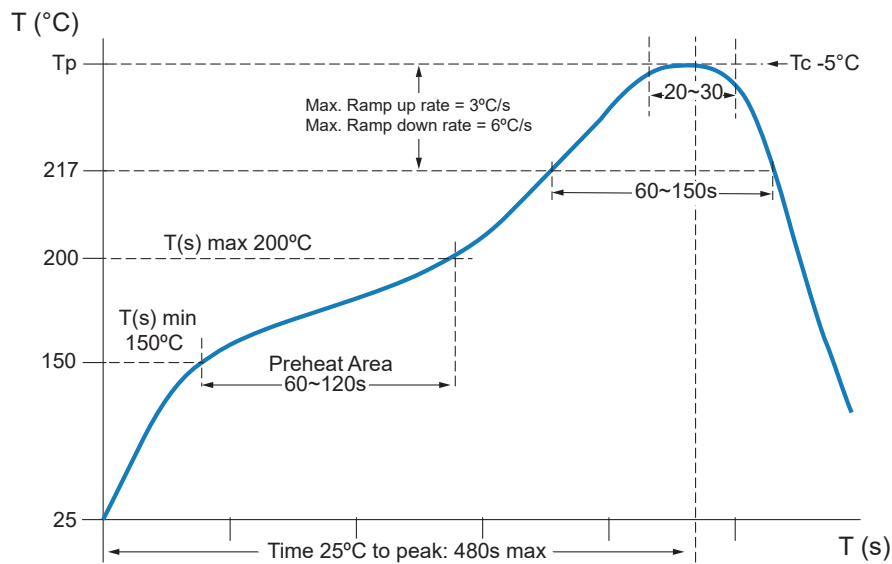
ELECTRICAL DIAGRAM



PERFORMANCE CURVES



REFLOW SOLDERING TEMPERATURE CURVE

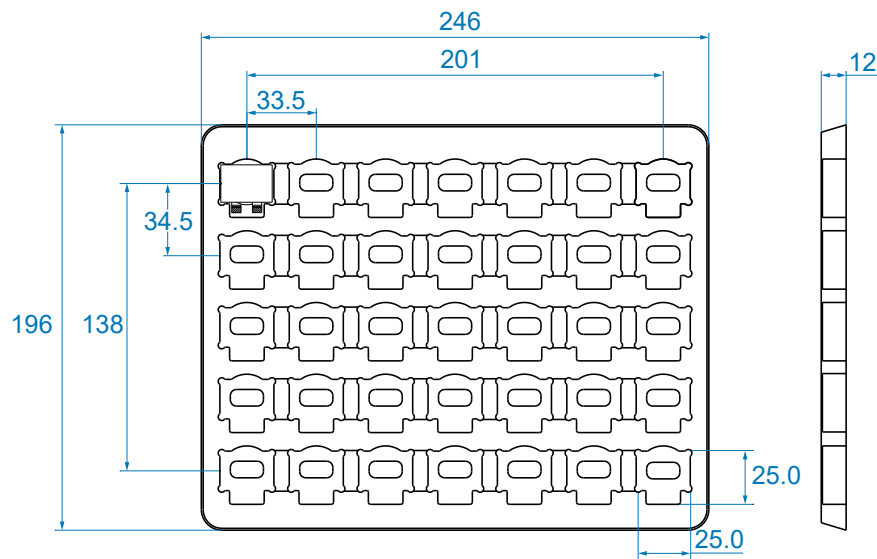


CLASSIFICATION OF PEAK PACKAGE BODY TEMPERATURE

	Package Thickness	Package Volume		
		$< 350 \text{ mm}^3$	$350 \sim 2000 \text{ mm}^3$	$> 2000 \text{ mm}^3$
PB-Free Assembly	$< 1.6 \text{ mm}$	260°C	260°C	260°C
	$1.6 \sim 2.5 \text{ mm}$	260°C	250°C	245°C
	$\geq 2.5 \text{ mm}$	250°C	245°C	245°C

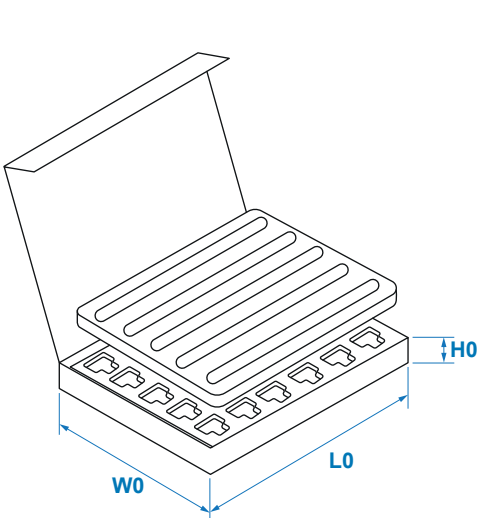
QUANTITY PER TRAY & PACKING INFORMATION

Units: mm

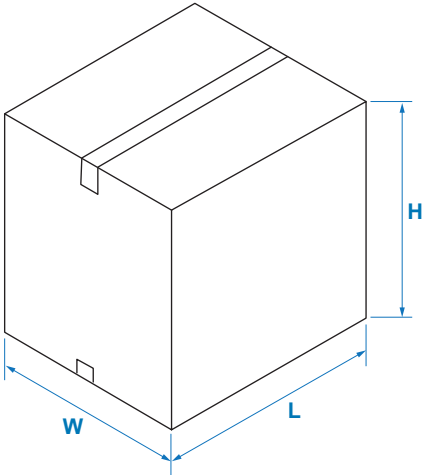
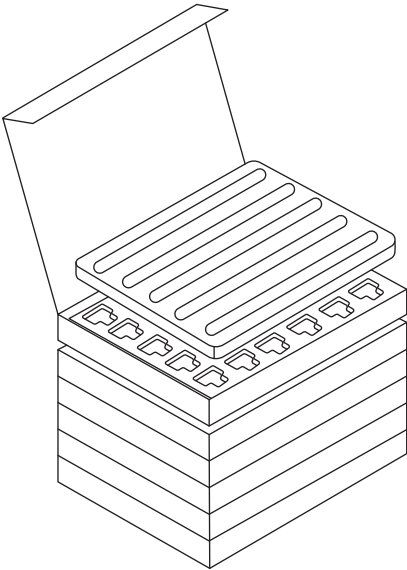


PACKAGING DIMENSIONS (mm)

Product Series	L0	W0	H0	L	W	H
F2D5-2580	265	205	30	275	232	261



INSIDE BOX



OUTSIDE CARTON

QUANTITY PER PACKAGE

Product Series	Pcs per Tray	Qty of Trays	Qty of Inner Carton	Pcs per Outside Carton
F2D5-2580	35	2	8	560

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.



Bel Fuse Inc.
300 Executive Drive, Suite 300
West Orange, NJ 07052
United States

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Toll Free 866-239-5777
Tel 516-239-5777 | Fax 516-239-7208
sales@signaltransformer.com
techhelp@signaltransformer.com

[belfuse.com](#)