

MDSA Series

SMD Low Profile High Current Molded Inductor

Size 7030



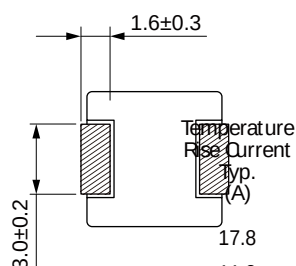
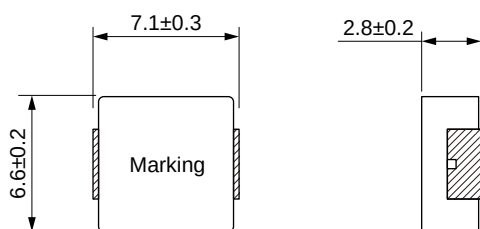
FEATURES

- Shielded construction
- Capable of corresponding high frequency.
- Low loss realized with low DCR.
- High performance (Isat) realized by metal dust core.
- Ultra low buzz noise, due to composite construction.
- 100% Lead(Pb)-Free and RoHS compliant.
- AEC-Q200 qualified
- Operating temperature: -55 to +155 °C(including self-temperature rise)
- Quantity: 1000PCS

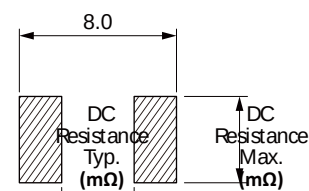
APPLICATION

- Noise filter for various drive circuitry requiring high temperature operation and peak current handling capability.
- Boost-Converter
- Buck-Converter DC/DC

Dimensions: [mm]



Land Pattern: [mm]



Electrical Properties:

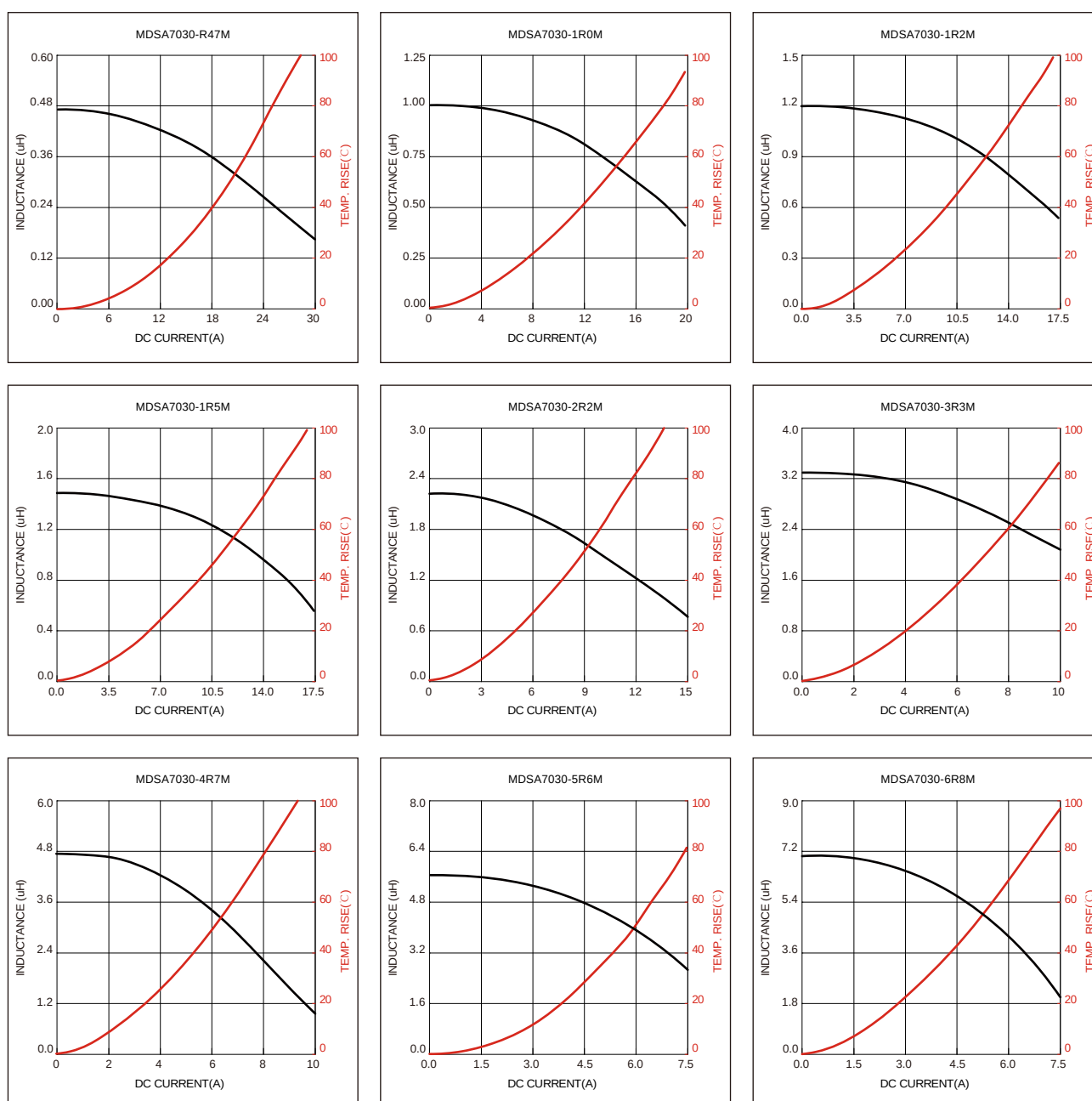
Part No	Inductance @ 100KHz/ 1V (μH)						
				6.4		19.2	22.1
				5.5		28.0	33.0
				5.4		39.1	42.2
				4.4		43.2	50.0
MDSA7030-R47M	0.47			4.3		54.4	60.3
MDSA7030-1R0M	1.00			3.9		62.0	68.1
MDSA7030-1R2M	1.20			2.9		110.1	140.0
MDSA7030-1R5M	1.50						
MDSA7030-2R2M	2.20						
MDSA7030-3R3M	3.30						
MDSA7030-4R7M	4.70						
MDSA7030-5R6M	5.60						
MDSA7030-6R8M	6.80						
MDSA7030-8R2M	8.20						
MDSA7030-100M	10.0						
MDSA7030-150M	15.0						

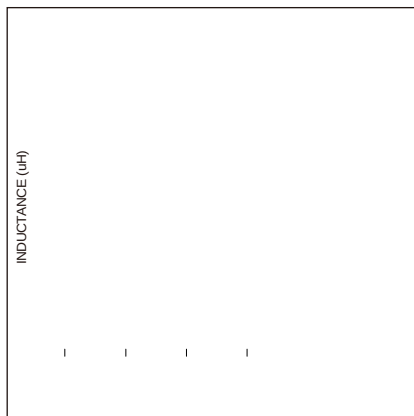
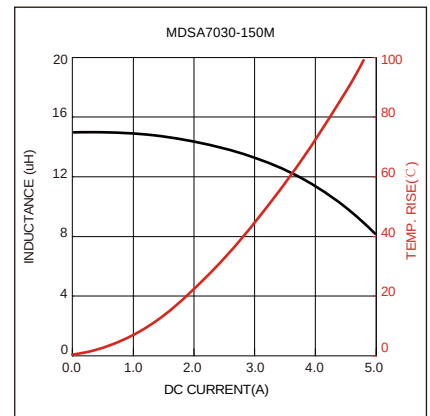
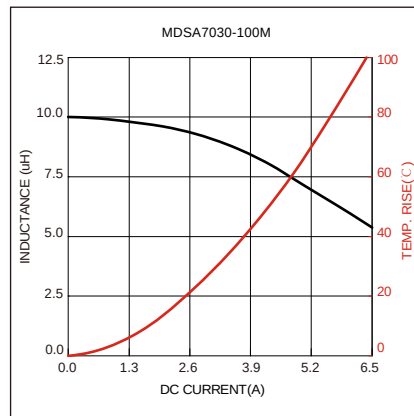
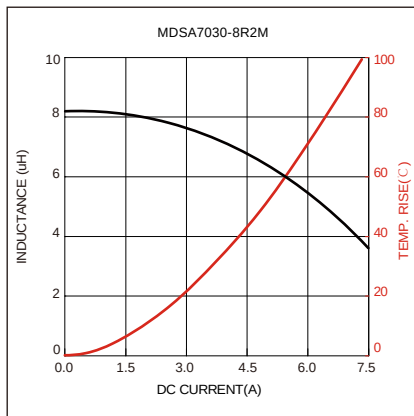
Part No	Inductance @ 100KHz/ 1V (μ H)	Tolerance	Temperature Rise Current Typ. (A)	Saturation Current Typ. (A)	DC Resistance Typ. (m Ω)	DC Resistance Max. (m Ω)
MDSA7030-220M	22.0	$\pm 20\%$	2.4	3.0	150.2	190.1
MDSA7030-330M	33.0	$\pm 20\%$	2.1	2.4	215.0	258.0
MDSA7030-470M	47.0	$\pm 20\%$	1.5	1.9	318.3	385.2

Saturation Current will cause L to drop approximately 30%

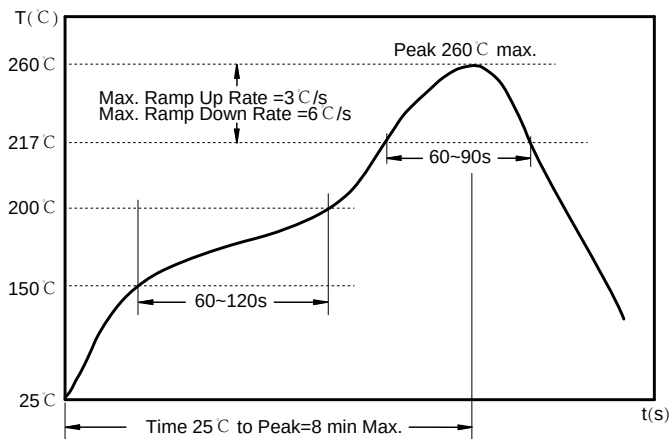
Temperature Rise Current: The actual value of DC current when the temperature rise is $\Delta T=40^{\circ}\text{C}$

Typical Electrical Characteristics:





Soldering Reflow:



Preheat condition: 150 ~200°C / 60~120 sec.

Allowed time above 217°C : 60~90 sec.

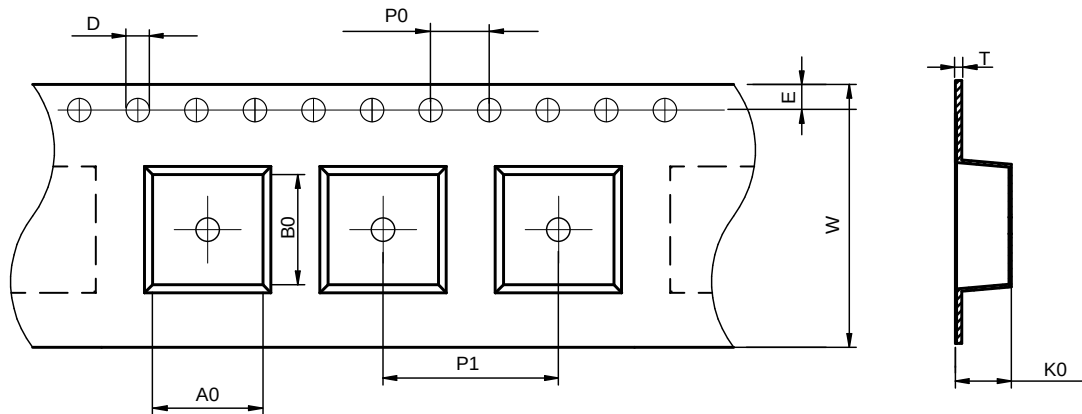
Max temperature: 260°C.

Max time at max temperature: 10 sec.

Allowed Reflow time: 2x max.

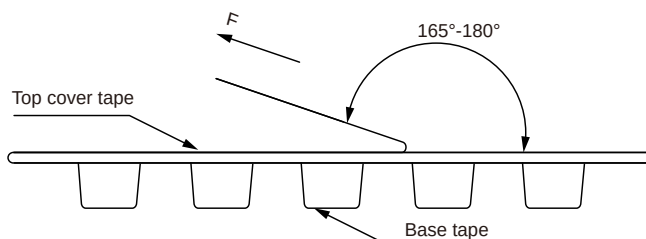
Packaging Information:

Tape Dimension:



Series	A0 (mm)	B0 (mm)	D (mm)	P0 (mm)	P1 (mm)	W (mm)	K0 (mm)	E (mm)	T (mm)
MDSA7030	7.0±0.3	7.7±0.3	1.5±0.1	4.0±0.1	12.0±0.1	16.0±0.3	3.3±0.1	1.75±0.1	0.35±0.05

Peel force of top cover tape:

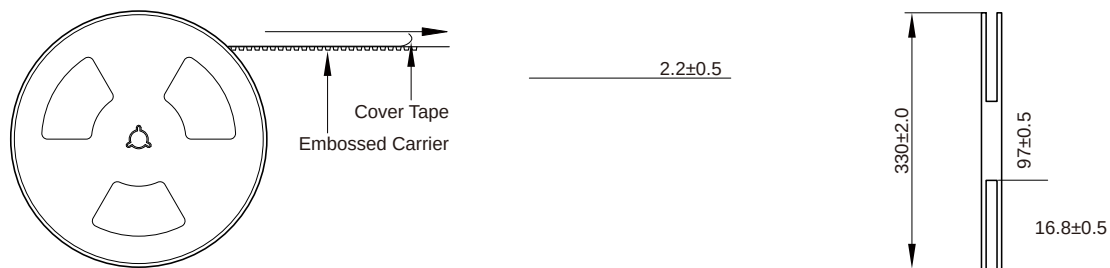


The peel force of top cover tape shall be between 0.1 to 1.3 N

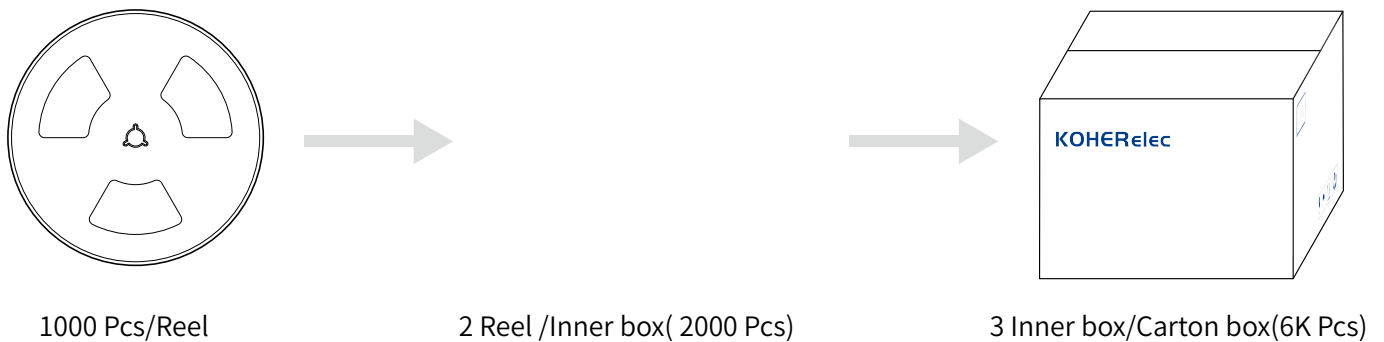
Product Marking:

Marking	K+Printing (Inductance+period)
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Reel Dimension: [mm]



Packaging Quantity:



Cautions and Warnings:

Storage Conditions:

- The storage period is within 12 months after the completion of production. Be sure to follow the storage conditions (temperature: -5 to 35°C, humidity: 75% RH Max). If the storage period elapses, the soldering of the terminal electrodes may deteriorate. The warranty period is one year.
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Operation Instructions:

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