

MDTA Series
Flat Wire Molded Inductor
Size 4020



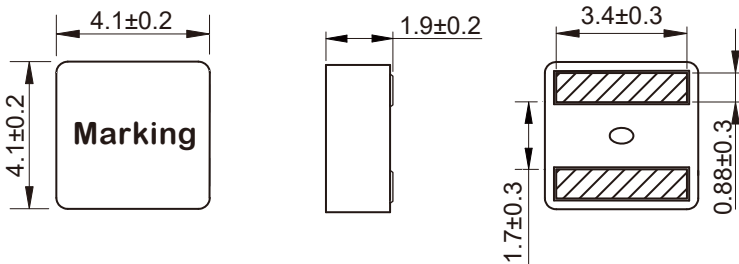
FEATURES

- Flat wire coil for low copper losses
- Composite core material allows high saturation currents
- Very low acoustic noise and very low leakage flux noise
- High current capability and handles high transient current spikes
- AEC-Q200 qualified
- Operating temperature -55 to +155 °C (Including self - temperature rise)
- Quantity: 3000pcs

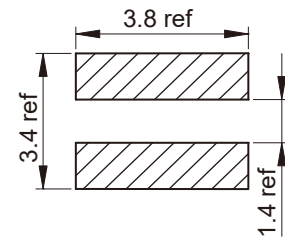
APPLICATION

- DC/DC converters for entertainment/navigation systems
- Noise suppression for motors: windshield wipers / power seats/ power mirrors / heating and ventilation blowers / HID lighting
- LED drivers

Dimensions: [mm]



Land Pattern: [mm]

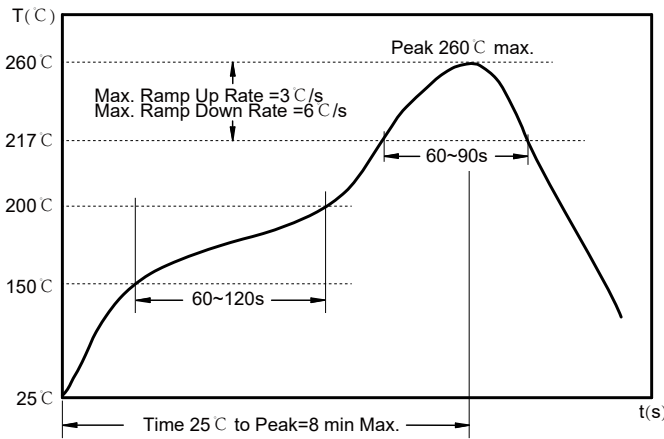


Electrical Properties:

Part No	L@100KHz /0.1V (μH)	Tolerance	I _{SAT} Typ. (A)	I _R (A)		R _{DC} Max. (mΩ)
				20°C rise	40°C rise	
MDTA4020-R10M	0.10	±20%	38.0	13.5	18.0	2.42
MDTA4020-R22M	0.22	±20%	19.5	13.0	16.8	4.60
MDTA4020-R36M	0.36	±20%	17.0	11.0	14.5	6.30
MDTA4020-R40M	0.40	±20%	15.5	10.0	14.0	7.73
MDTA4020-R47M	0.47	±20%	14.5	9.0	12.5	8.58
MDTA4020-R56M	0.56	±20%	14.0	8.5	12.0	9.30
MDTA4020-R60M	0.60	±20%	13.7	8.0	11.7	9.52
MDTA4020-R72M	0.72	±20%	12.0	7.6	10.5	11.6
MDTA4020-1R0M	1.00	±20%	9.6	6.8	9.6	14.6
MDTA4020-1R2M	1.20	±20%	9.0	6.6	9.0	17.9
MDTA4020-1R5M	1.50	±20%	8.0	5.8	7.6	23.5
MDTA4020-1R8M	1.80	±20%	7.5	5.2	7.0	28.0
MDTA4020-2R2M	2.20	±20%	6.5	4.6	5.6	38.7

Saturation Current will cause L to drop approximately 30%
 Temperature Rise Current that causes the specified temperature rise from 25°C ambient.

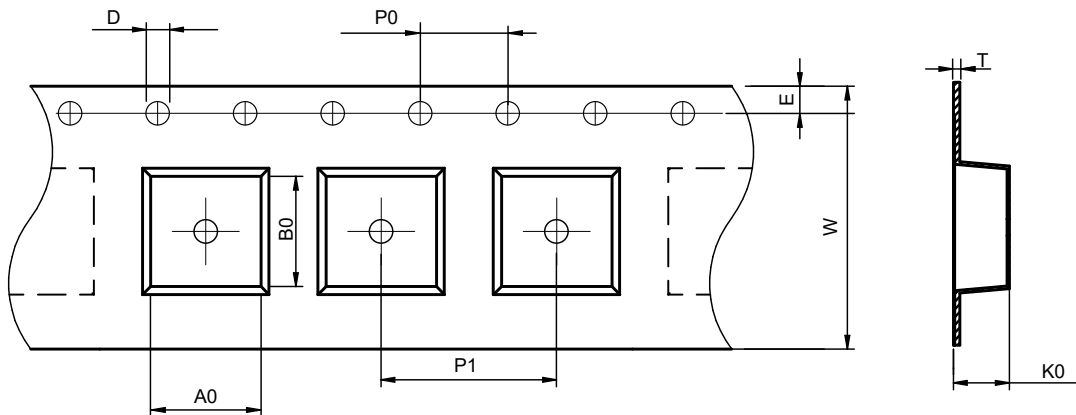
Soldering Reflow:



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.

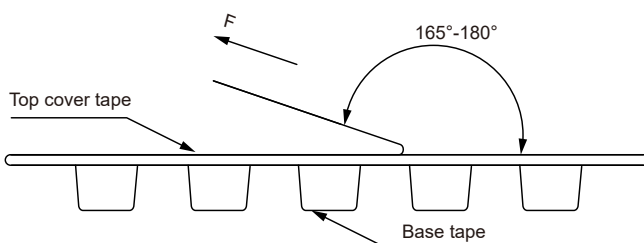
Packaging Information:

Tape Dimension:



Series	A0 (mm)	B0 (mm)	D (mm)	P0 (mm)	P1 (mm)	W (mm)	K0 (mm)	E (mm)	T (mm)
MDTA4020	4.5±0.1	4.5±0.1	1.5±0.1	4.0±0.1	8.0±0.1	12.0±0.3	2.3±0.1	1.75±0.1	0.35±0.05

Peel force of top cover tape:

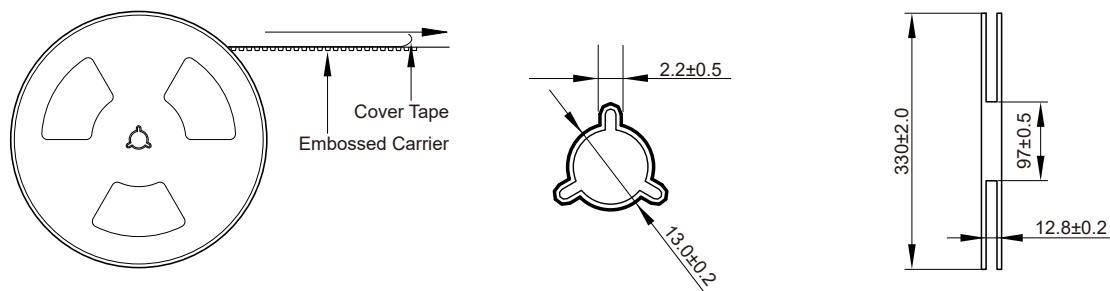


The peel force of top cover tape shall be between 0.1 to 1.3 N

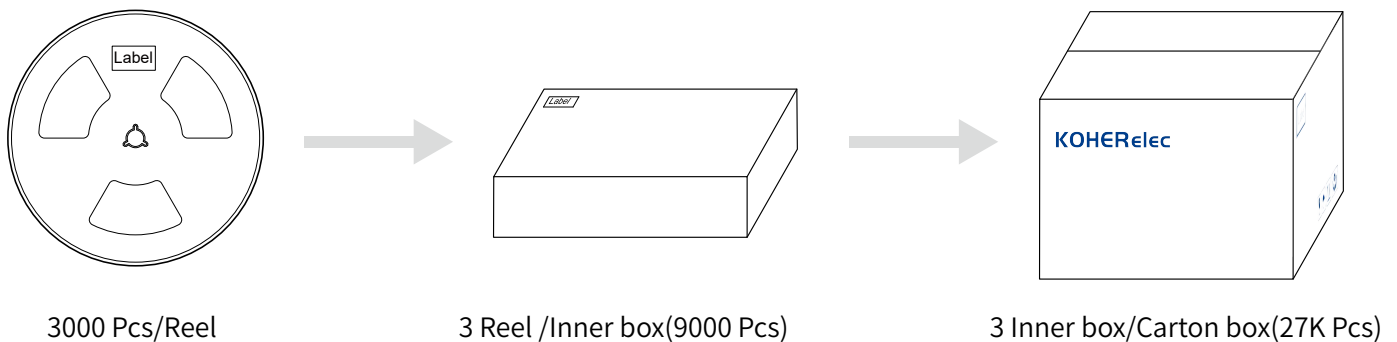
Product Marking:

Marking	Printing (Inductance)
---------	-----------------------

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.
- Product should not be exposed to environment with high temperature, high humidity, dust, corrosive gas and etc.
- Products should be handled with care to avoid damage or contamination from perspiration and skin oils.
- Please always handle products carefully to prevent any damage caused by dropping down or inappropriate removing.

Operation Instructions:

- Self heating (temperature increase) occurs when the power is turned ON, so the tolerance should be sufficient for the set thermal design.
- Before soldering, be sure to preheat components. The preheating temperature should be set so that the temperature difference between the solder temperature and chip temperature does not exceed 150°C.
- Soldering corrections after mounting should be within the range of the conditions determined in the specifications. If overheated, a short circuit, performance deterioration, or lifespan shortening may occur.
- Generally, Koher might not be familiar with either customer's specific application or actual requests as customer does. As a result customer shall be responsible for checking and confirming whether Koher product with the performance described in the product specification is suitable for using in customer's particular application or not.