

#### **MDTA Series**

# Flat Wire Molded Inductor Size 1510



#### **FEATURES**

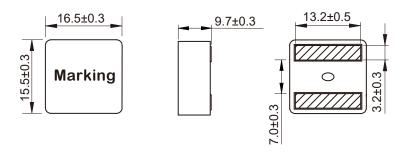
- Flat wire coil for low copper losses
- Composoite core material allows high saturation currents
- Very low acoustic noise and very low leakage flux noise
- High current capability and handles high transient current spikes
- AEC-Q200 qualified
- Operating temperature -55 to +155 °C (Including self temperature rise)
- Quantity: 150pcs

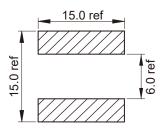
#### **APPLICATION**

- 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:**

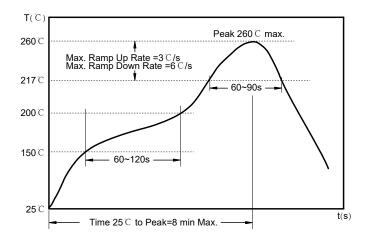
	L@100KHz /0.1V (μH)	Tolerance	I <sub>SAT</sub> Typ. (A)	I <sub>R</sub> (		
Part No				20°C rise	40°C rise	R <sub>DC</sub> Max. (mΩ)
MDTA1510-4R7M	4.7	±20%	43.0	22.0	30.0	3.80
MDTA1510-5R6M	5.6	±20%	38.0	21.0	28.0	4.20
MDTA1510-6R8M	6.8	±20%	36.0	20.0	26.0	4.60
MDTA1510-8R2M	8.2	±20%	32.0	19.0	25.0	7.20
MDTA1510-100M	10	±20%	29.0	18.0	24.0	8.60
MDTA1510-150M	15	±20%	20.0	14.0	18.0	11.5
MDTA1510-220M	22	±20%	18.0	10.5	14.2	15.8
MDTA1510-330M	33	±20%	16.7	8.6	12.3	20.0

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.

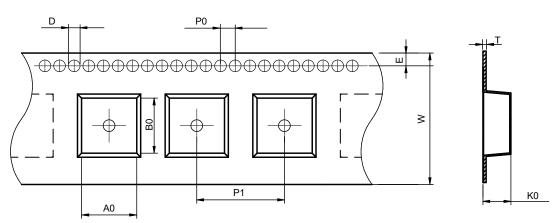
Max temperature: 260 ℃.

Max time at max temperature: 10 sec.

Allowed Reflow time: 2x max.

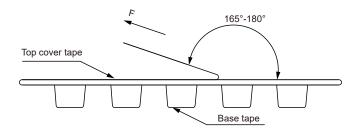
# Packaging Information:

## Tape Dimension:



Series	A0 (mm)	B0 (mm)	D (mm)	P0 (mm)	P1 (mm)	W (mm)	K0 (mm)	E (mm)	T (mm)
MDTA1510	17.0±0.1	16.0±0.1	1.5±0.1	4.0±0.1	24.0±0.1	32.0±0.3	10.5±0.1	1.75±0.1	0.50±0.05

## Peel force of top cover tape:

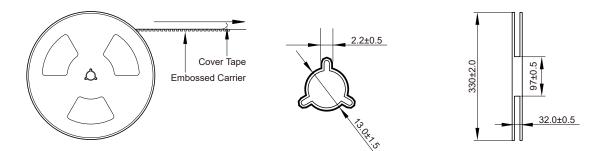


The peel force of top cover tape shall be between 0.1 to 1.3 N

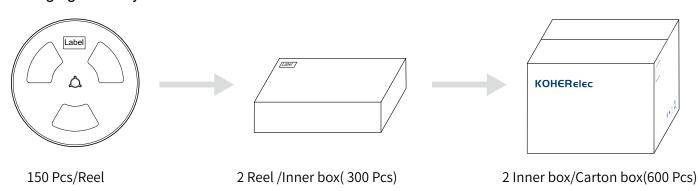
# **Product Marking:**



## 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.
- 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.