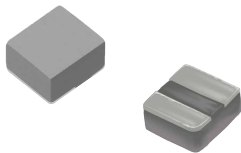


**MDTA Series**  
**SMD Low Profile High Current Molded Inductor**  
**Size 32251B**



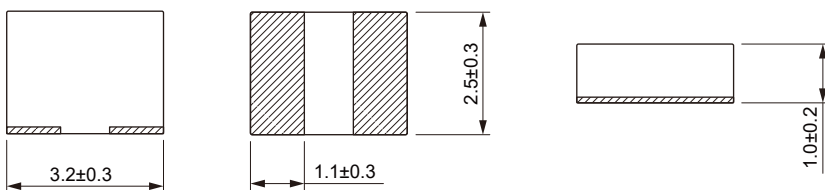
**FEATURES**

- High current, low DCR, high efficiency.
- Very low acoustic noise and very low leakage flux noise.
- AEC-Q200 qualified
- 100% Lead(Pb)-Free and RoHS compliant.
- Operating temperature: -55 to +155 °C (including self-temperature rise)
- Quantity: 3000PCS

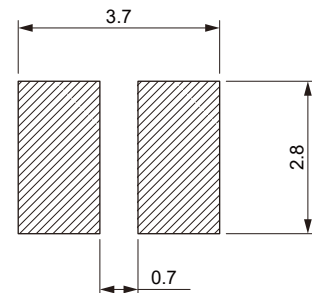
**APPLICATION**

- ADAS
- Headlamps, tail lamps and interior lighting
- HVAC
- Doors, window lift and seat control
- Audio subsystem
- Digital instrument cluster
- In-Vehicle Infotainment and navigation

**Dimensions: [mm]**



**Land Pattern: [mm]**



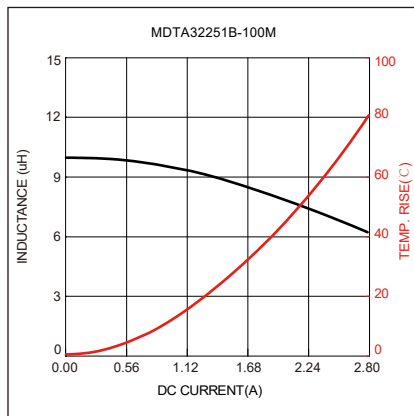
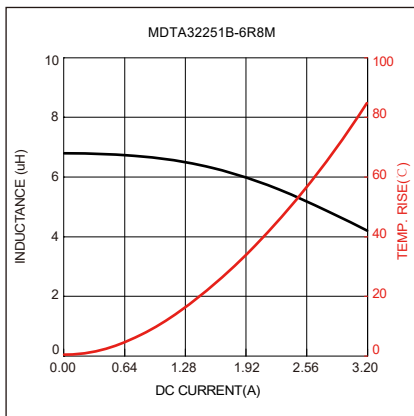
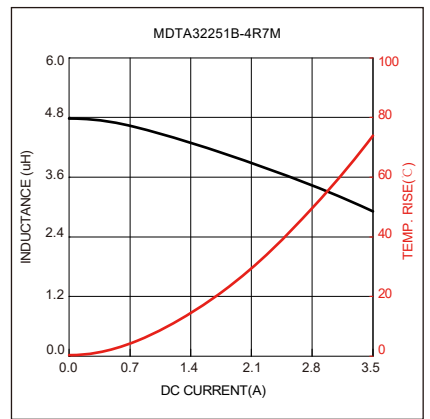
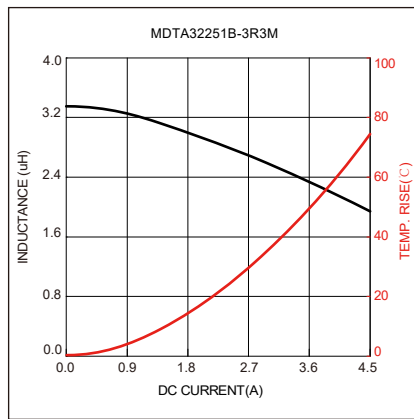
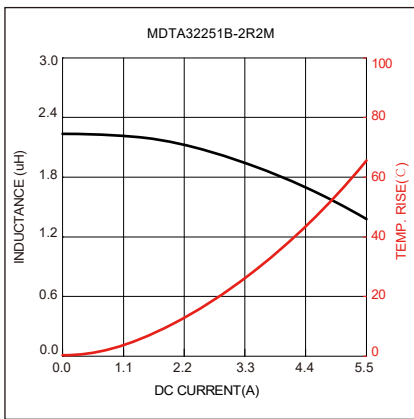
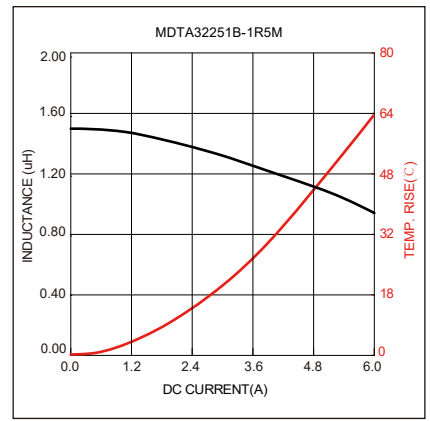
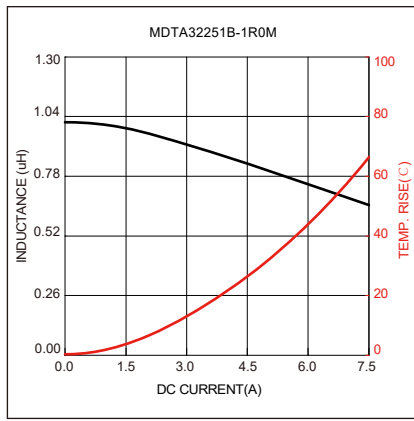
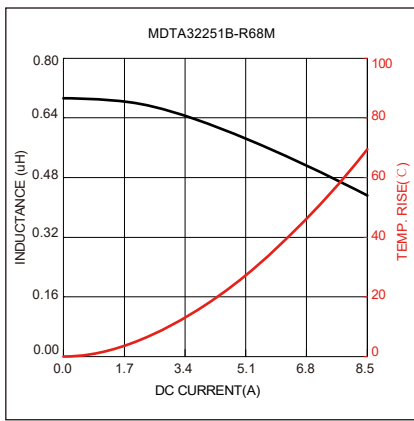
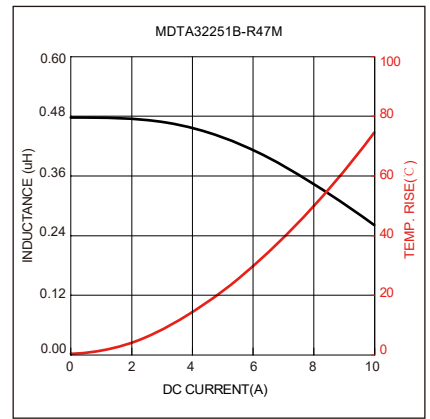
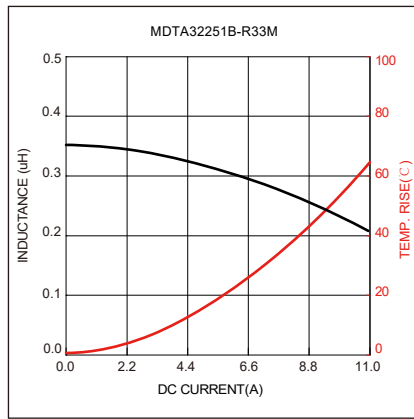
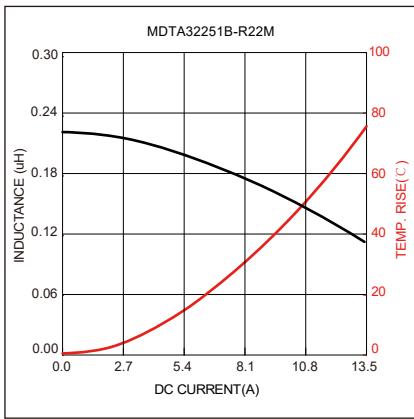
**Electrical Properties:**

Part No	Inductance @ 100KHz/1V (μH)	Tolerance	Temperature Rise Current Typ. (A)	Temperature Rise Current Max. (A)	Saturation Current Typ. (A)	Saturation Current Max. (A)	DC Resistance Typ. (mΩ)	DC Resistance Max. (mΩ)
MDTA32251B-R22M	0.22	±20%	9.5	9.0	9.3	8.7	7.4	8.5
MDTA32251B-R33M	0.33	±20%	8.5	8.0	9.2	8.6	9.0	12
MDTA32251B-R47M	0.47	±20%	7.1	6.6	8.3	7.5	17	19
MDTA32251B-R68M	0.68	±20%	6.3	5.8	7.4	6.9	19	24
MDTA32251B-1R0M	1.0	±20%	5.7	5.2	6.6	5.8	26	30
MDTA32251B-1R5M	1.5	±20%	4.6	4.0	5.3	5.0	40	50
MDTA32251B-2R2M	2.2	±20%	4.2	3.7	4.9	4.4	58	70
MDTA32251B-3R3M	3.3	±20%	3.2	2.8	3.5	3.1	75	95
MDTA32251B-4R7M	4.7	±20%	2.5	2.0	2.9	2.5	115	135
MDTA32251B-6R8M	6.8	±20%	2.1	1.8	2.7	2.3	177	210
MDTA32251B-100M	10	±20%	1.9	1.6	2.3	2.0	230	264

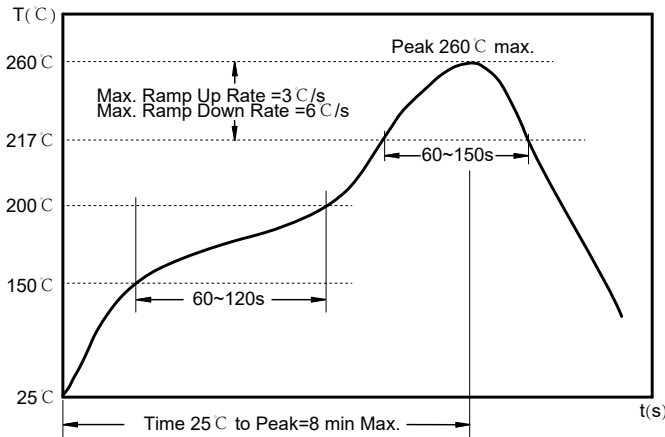
Saturation Current will cause L to drop approximately 30%

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

Typical Electrical Characteristics:



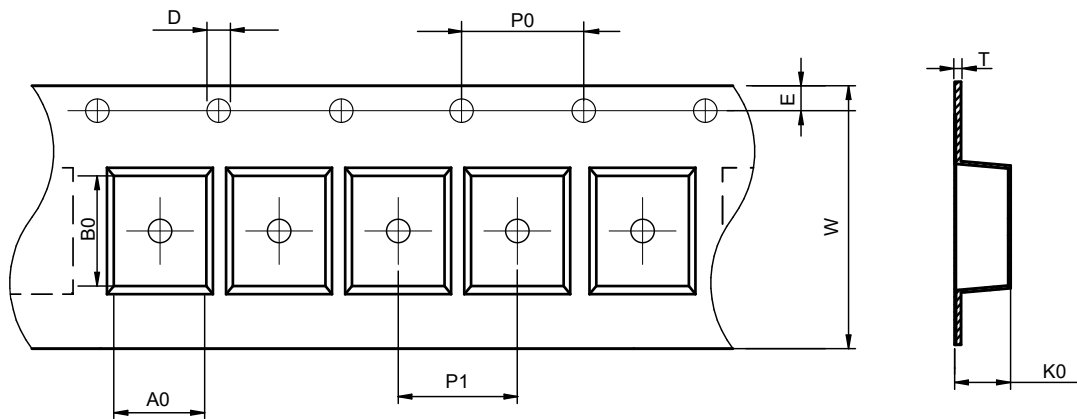
### Soldering Reflow:



Preheat condition: 150 ~200°C / 60~120 sec.  
 Allowed time above 217°C : 60~150 sec.  
 Max temperature: 260°C.  
 Allowed Reflow time: 2x max.

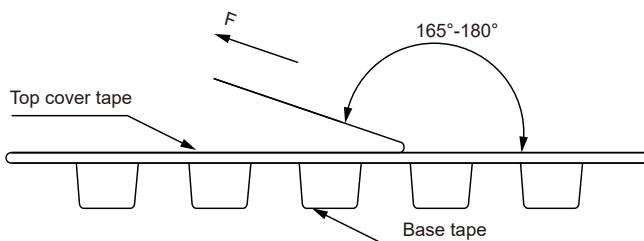
### Packaging Information:

#### Tape Dimension:

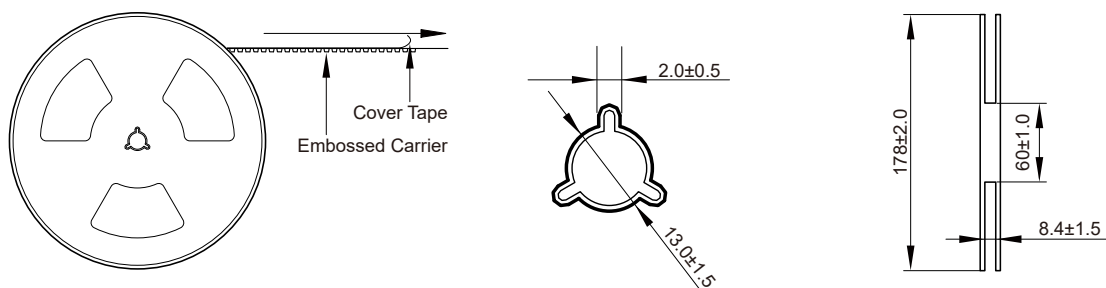
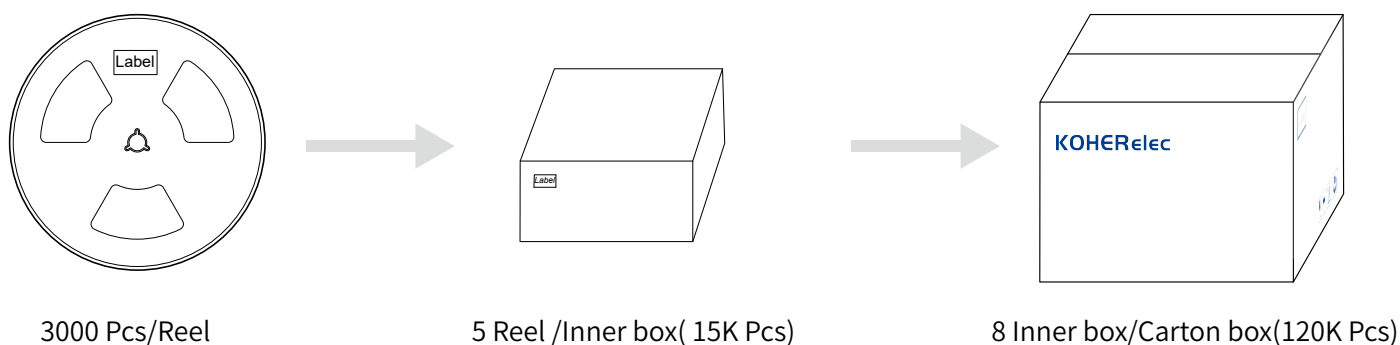


Series	A0 (mm)	B0 (mm)	D (mm)	P0 (mm)	P1 (mm)	W (mm)	K0 (mm)	E (mm)	T (mm)
MDTA32251B	2.9±0.1	3.6±0.1	1.5±0.1	4.0±0.1	4.0±0.1	8.0±0.1	1.4±0.1	1.75±0.1	0.25±0.05

#### Peel force of top cover tape:



The peel force of top cover tape shall be between 0.1 to 0.98 N

**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.