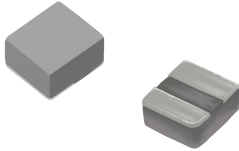


MDTP-E Series

Mini Molding Power Inductors

Size 20161A



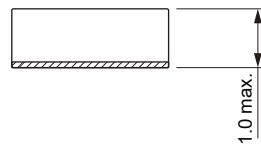
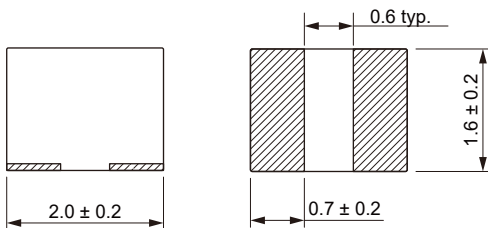
FEATURES

- High performance (I_{sat}) realized by metal dust core.
- Low loss realized with low R_{dc} .
- Closed magnetic circuit design reduces leakage flux.
- Compliance with RoHS and Halogen Free.
- Operating temperature: -55 to +125°C (including self-temperature rise)
- Quantity: 3000pcs

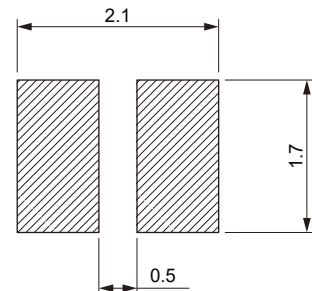
APPLICATION

- DC/DC converters
- Note PC power system, incl. IMVP-6
- Wi-Fi module, VR, AR, HDDs, DSCs, etc

Dimensions: [mm]



Land Pattern: [mm]



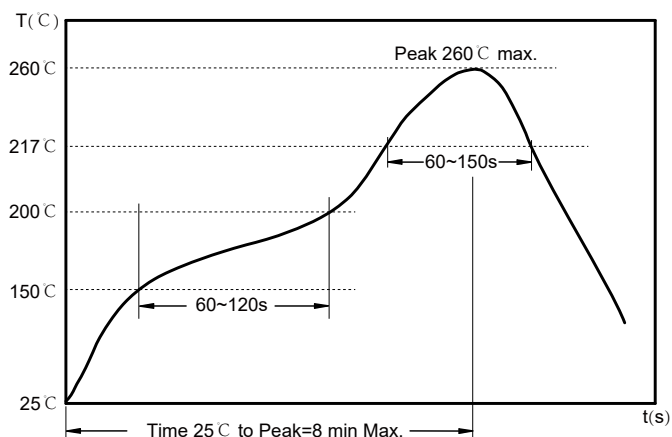
Electrical Properties:

Part No	Inductance @ 1MHz/1V (μ H)	Tolerance	Temperature Rise Current Typ. (A)	Temperature Rise Current Max. (A)	Saturation Current Typ. (A)	Saturation Current Max. (A)	DC Resistance Typ. (m Ω)	DC Resistance Max. (m Ω)
MDTP20161A-R10M-E	0.10	±20%	8.5	8.0	8.5	8.0	7.0	12
MDTP20161A-R11M-E	0.11	±20%	8.0	7.5	8.4	7.8	7.5	13
MDTP20161A-R15M-E	0.15	±20%	7.6	7.0	8.0	7.5	8.0	14
MDTP20161A-R22M-E	0.22	±20%	6.6	6.0	7.6	7.0	12.0	18
MDTP20161A-R24M-E	0.24	±20%	6.6	6.0	7.6	7.0	14.0	19
MDTP20161A-R33M-E	0.33	±20%	5.4	5.0	6.5	6.0	19.0	25
MDTP20161A-R47M-E	0.47	±20%	5.0	4.6	6.3	5.5	22.0	28
MDTP20161A-R68M-E	0.68	±20%	4.4	4.0	5.0	4.5	27.0	34
MDTP20161A-1R0M-E	1.00	±20%	4.0	3.6	4.4	3.9	43.0	53
MDTP20161A-1R5M-E	1.50	±20%	2.6	2.3	3.0	2.6	75.0	95
MDTP20161A-2R2M-E	2.20	±20%	2.4	2.1	2.9	2.5	120	135
MDTP20161A-3R3M-E	3.30	±20%	1.7	1.5	2.2	1.9	150	180
MDTP20161A-4R7M-E	4.70	±20%	1.5	1.3	2.0	1.7	220	255
MDTP20161A-6R8M-E	6.80	±20%	1.4	1.1	1.4	1.1	330	390
MDTP20161A-100M-E	10.0	±20%	0.9	0.6	1.3	0.9	500	600

Saturation Current will cause L to drop approximately 30%

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

Soldering Reflow:



Preheat condition: 150 ~200 $^{\circ}\text{C}$ / 60~120 sec.

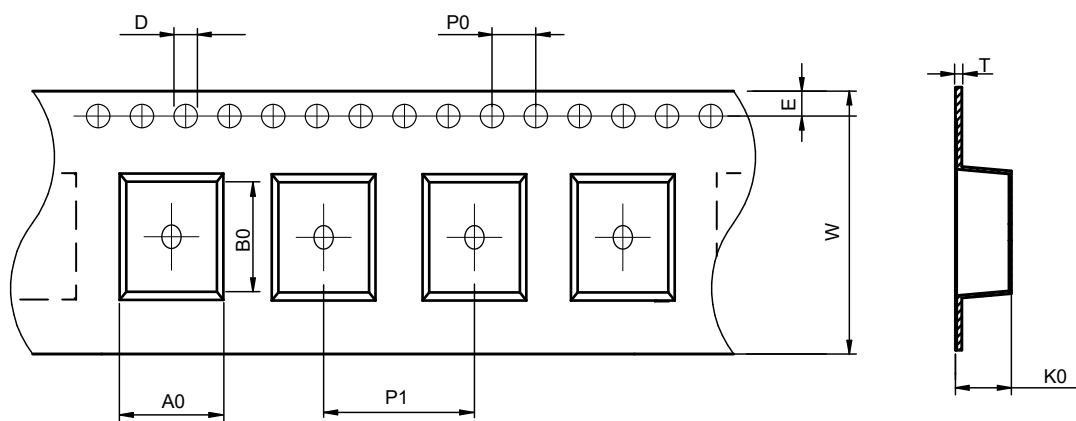
Allowed time above 217 $^{\circ}\text{C}$: 60~150 sec.

Max temperature: 260 $^{\circ}\text{C}$.

Max time at max temperature: 10 sec.

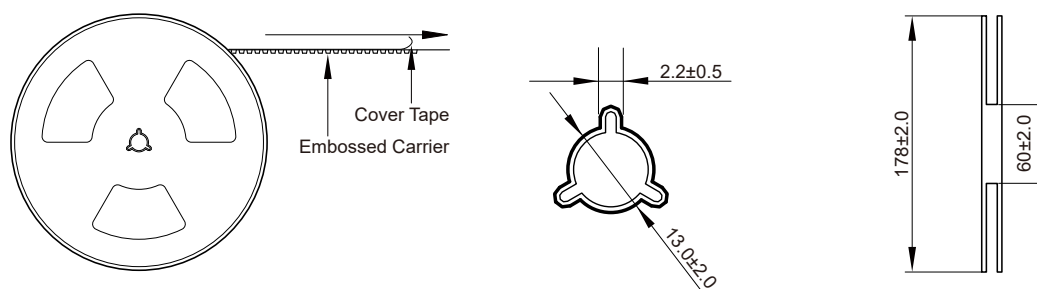
Packaging Information:

Tape Dimension:

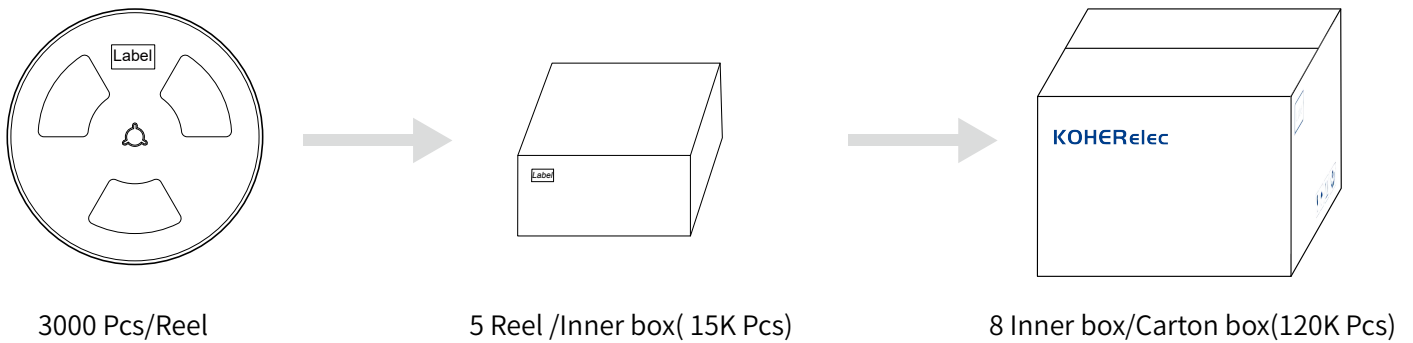


Series	A0 (mm)	B0 (mm)	D (mm)	P0 (mm)	P1 (mm)	W (mm)	K0 (mm)	E (mm)	T (mm)
MDTP20161A-E	1.95 ± 0.1	2.35 ± 0.1	1.0 ± 0.2	4.0 ± 0.1	4.0 ± 0.1	8.0 ± 0.1	1.15 ± 0.1	1.75 ± 0.1	0.25 ± 0.05

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.