Application

Laptop, desktop and server applications
High current power supplies
Battery powered devices
PMIC

Features

RoHS compliant & halogen free

Low resistance and high current rating

Magnetic core made by high performance magnetic metal powder

Product Identification

1 2 3 4 5

<u>MMD</u> - <u>10DZ</u> - <u>2R2</u> <u>M</u> - <u>X2</u>

- ① Product Code
- ② Dimensions

③ Inductance: $2R2 = 2.2\mu H$

4 Tolerance: $M = \pm 20\%$

Series Type: X2 Type

Note: Please refer to the "Product Dimension" for detail dimensions.



Electrical Performance

Part number	Inductance ±20%@0A	Rdc (mΩ)		Heat rating current (Idc) ¹	Saturation current (Isat) ²
	(µH)	Тур.	Max.	DC amps (A)	DC amps (A)
MMD-10DZ-R10M-X2	0.22	0.9	1.0	35.0	60.0
MMD-10DZ-R22M-X2	0.36	1.05	1.2	30.0	60.0
MMD-10DZ-R33M-X2	0.45	1.1	1.3	25.0	27.0
MMD-10DZ-R47M-X2	0.47	1.53	1.68	30.0	40.0
MMD-10DZ-R56M-X2	0.56	1.6	1.8	25.0	33.0
MMD-10DZ-R68M-X2	0.68	2.4	2.7	22.0	39.0
MMD-10DZ-1R0M-X2	1.0	3.0	3.3	18.0	28.0
MMD-10DZ-1R5M-X2	1.5	3.8	4.2	16.0	32.0
MMD-10DZ-1R8M-X2	1.8	4.5	5.0	15.0	15.0
MMD-10DZ-2R2M-X2	2.2	6.6	7.0	12.0	27.0
MMD-10DZ-3R3M-X2	3.3	10.8	11.8	10.0	16.0
MMD-10DZ-4R7M-X2	4.7	15.0	16.5	9.5	14.0
MMD-10DZ-6R8M-X2	6.8	22.5	25.0	6.5	9.0
MMD-10DZ-100M-X2	10.0	27.0	30.0	7.5	8.5

Test frequency: 100 KHz, 0.25V.

Test instruments: Inductance/saturation current: Keysight 4285A or equivalent.

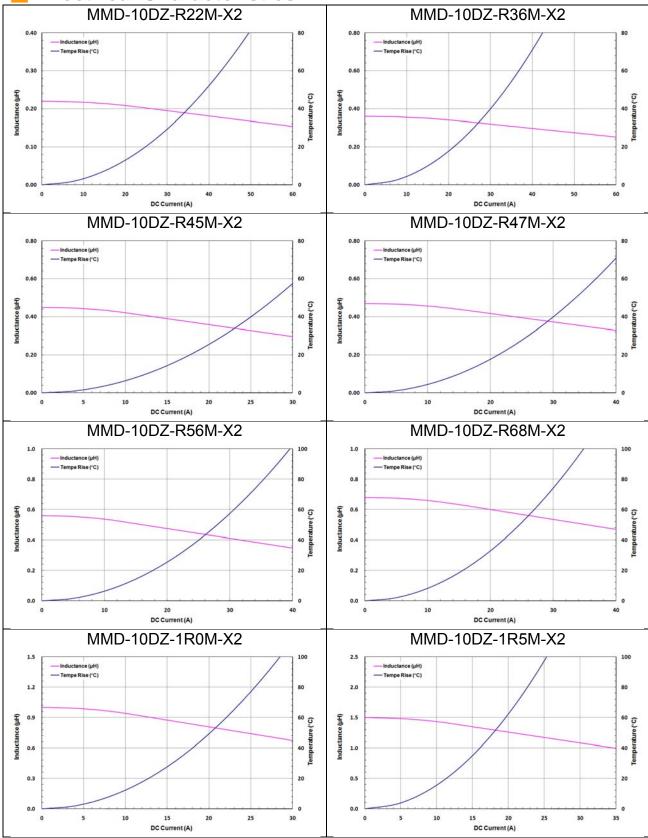
Rdc: ADEX AX1152D or equivalent.

Notes:

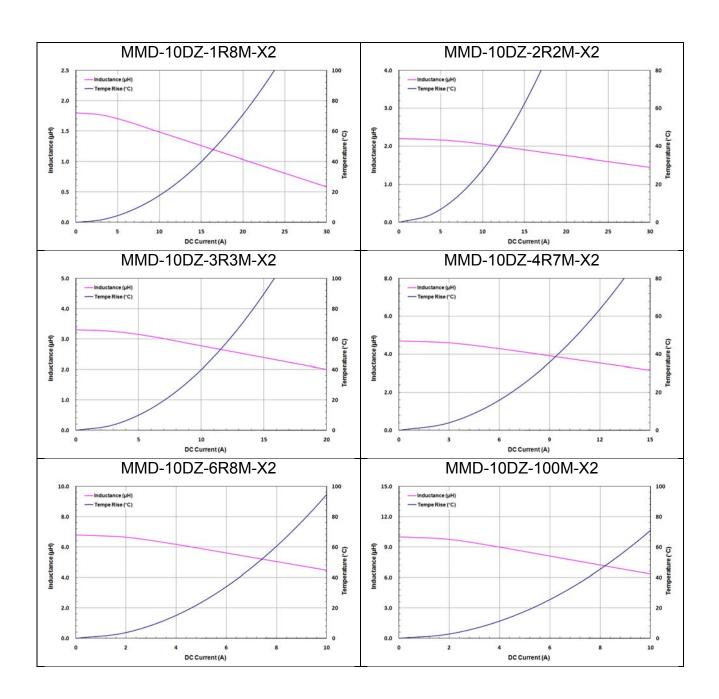
- 1. The heat rating current (Idc) will cause temperature rise approximate 40°C.
- 2. The saturation current (Isat) will cause initial inductance drop approximate 30%.
- 3. All test data is referenced at 25°C ambient.
- 4. Operating temperature range -55°C to +125°C.
- 5. The part temperature (ambient + temp rise) should not exceed 125°C under the worst condition.
- 6. The temperature of component is affected by application conditions, e.g. circuit design, copper thickness of PCB and cooling conditions, the actual component temperature should be tested in the end application.



Electrical Characteristics

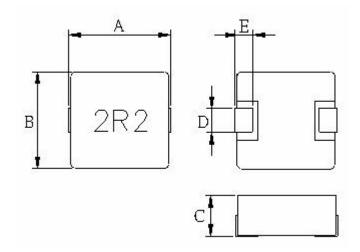








Product Dimension



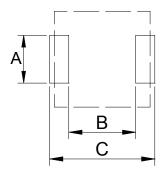
Dimension Part number	А	В	С	D	Е
MMD-10DZ-SERIES-X2	11.5 Max	10.0 ± 0.3	4.0 Max	2.5 ~ 3.5	2.2 ± 0.3

Unit: mm

Please refer individual part number data sheet for specific dimensions.



Recommended PCB Layout



Туре	10DZ	
Α	4.1	
В	5.4	
С	13.6	

Unit: mm

Safety precaution

- Do not make any through holes and copper pattern in the dotted line area. Except a copper pattern to the electrode.
- 2. Don't design/mount any components in contact with this product.

This power choke coil itself does not have any protective function in abnormal condition such as overload, short circuit, open conditions and etc, it shall be confirmed as the end product that there is no risk of smoking, fire, dielectric withstand voltage, insulation resistance and etc. in abnormal conditions to provide protective devices and/or protection circuit in the end product.



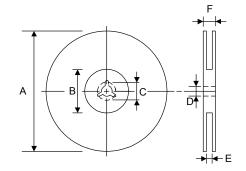
Packaging

Peel-off force



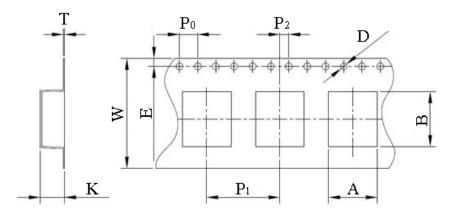
The peel off force of cover tape is 10 to 70 grams in the arrow direction.

Dimensions



Туре	Α	В	С	D	E	F
330mm	330	100	20	13	24.2	29.2
	±2	±1	±0.5	±1.0	+2.0/-0	±2

Unit: mm

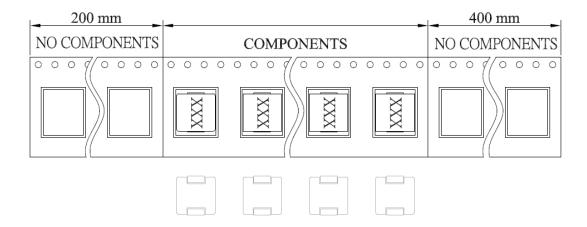


TYPE	SIZE	Α	В	W	P ₁	K
		10.4±0.1	11.5±0.1	24.0±0.3	16.0±0.1	4.5±0.1
MMD	10DZ	P ₀	P ₂	D	Е	Т
		4.0±0.1	2.0±0.1	1.5±0.1	1.75±0.1	0.35±0.05

Unit: mm



START

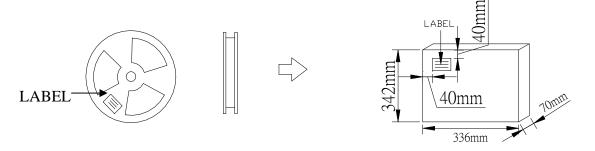


Taping quantity

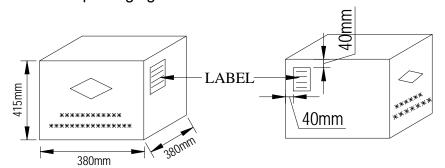
Series	10DZ		
PCS/Reel	500		

Carton box

Middle packaging: 2 reels/box



External packaging: 5 boxes/carton





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CR54NP-8R5MC 70F224AI MGDQ4-00004-P MHL1ECTTP18NJ MHQ1005P10NJ MHQ1005P1N0S MHQ1005P2N4S MHQ1005P3N6S
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