APPLICATION

PDA, notebook, desktop, and server applications
Low profile, high current power supplies
Battery powered devices
DC/DC converters in distributed power systems
DC/DC converters for field programmable gate array

FEATURES

RoHS Compliant.
Super low resistance, ultra high current rating
High performance (I sat) realized by metal dust core

PRODUCT IDENTIFICATION

① ② ③ ④ ⑤

MMD - 12CE - R68 M - V1

① Product Code

② Dimensions : 13.7 **x** 12.9 **x** 3.5 mm

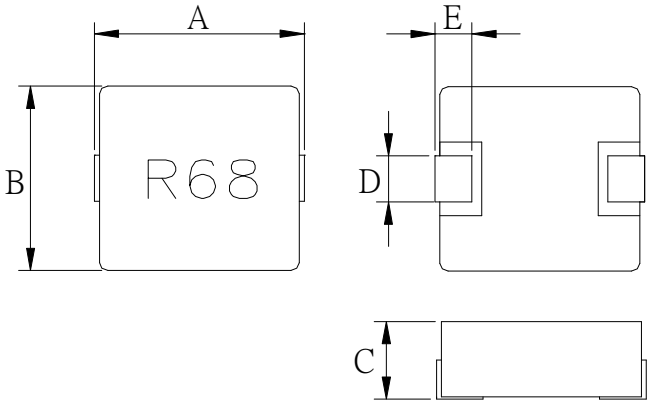
③ Inductance : R68 = 0.68 μH

④ Tolerance : M = ±20%

⑤ Series Type : V1 Type

NOTE：Please refer to the “Product Dimension” for detail dimensions.

PRODUCT DIMENSION



NOTE：Dimensions in mm

PRODUCT NO.	A	B	C	D	E
MMD-12CE-SERIES-V1	**13.2 ± 0.5**	**12.9 Max**	**3.5 Max**	**3.3 ± 0.5**	**2.2 ± 0.3**

ELECTRICAL REQUIREMENTS

PART NUMBER	INDUCTANCE Lo(μH)±20% @0A	R_{dc} (mΩ)		HEAT RATING CURRENT(Idc) DC AMPS[1]	SATURATION CURRENT(Isat) DC AMPS[2]
		Typ	Max		
MMD-12CE-R15M-V1	**0.15**	**1.0**	**1.2**	**41**	**75**
MMD-12CE-R22M-V1	**0.22**	**1.1**	**1.3**	**38.5**	**65**
MMD-12CE-R33M-V1	**0.33**	**1.3**	**1.5**	**36.5**	**62**
MMD-12CE-R47M-V1	**0.47**	**1.6**	**2.0**	**32**	**55**
MMD-12CE-R60M-V1	**0.6**	**1.8**	**2.2**	**29**	**51**
MMD-12CE-R68M-V1	**0.68**	**2.3**	**2.5**	**28**	**49**
MMD-12CE-R82M-V1	**0.82**	**2.6**	**3.0**	**25**	**44**
MMD-12CE-1R0M-V1	**1.0**	**3.3**	**3.5**	**24**	**40**
MMD-12CE-1R5M-V1	**1.5**	**5.1**	**5.5**	**19**	**35**
MMD-12CE-1R8M-V1	**1.8**	**6.5**	**7.0**	**16.5**	**30**
MMD-12CE-2R2M-V1	**2.2**	**7.2**	**8.0**	**16**	**29**
MMD-12CE-3R3M-V1	**3.3**	**11**	**12**	**12**	**27**
MMD-12CE-4R7M-V1	**4.7**	**14.3**	**15**	**10**	**24**

TEST FREQUENCY:100KHz,0.25V

TESTING INSTRUMENT L :Agilent4284A,WK4235,CH3302/G LCR METER
CH1320,CH1320S BIAS CURRENT SOURCE
R_{dc} :CH11025,GOM802 MICRO OHMMETER

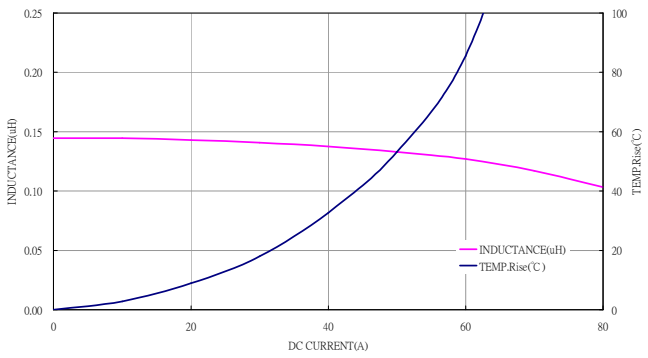
NOTES:

1. DC current (Idc) that will cause an approximate △T of 40℃
2. DC current (Isat) that will cause Lo to drop approximately 20%
3. All test data is referenced to 25℃ ambient
4. Operating Temperature Range -55℃ to +125℃
5. The part temperature (ambient + temp rise) should not exceed 125℃ under the worst operating conditions. Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.

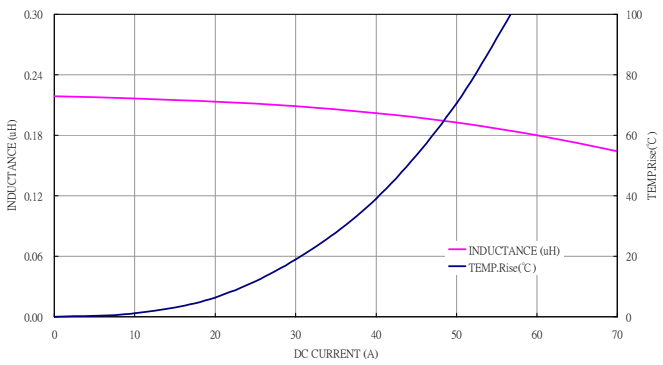
ELECTRICAL CHARACTERISTICS

Reference data

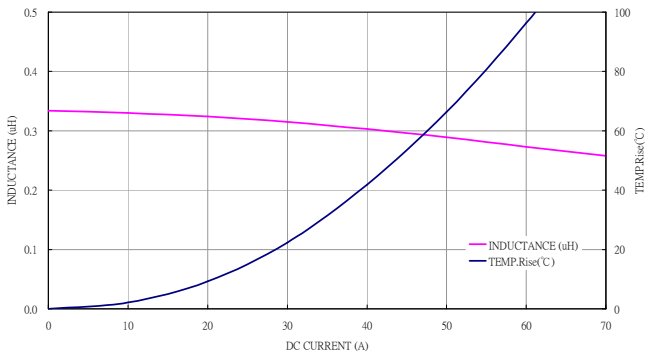
MMD-12CE-R15M-V1



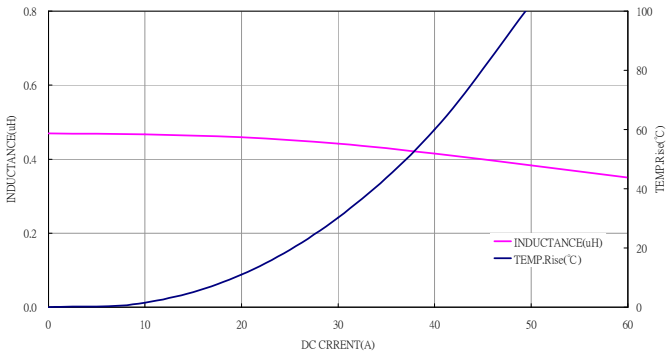
MMD-12CE-R22M-V1



MMD-12CE-R33M-V1



MMD-12CE-R47M-V1



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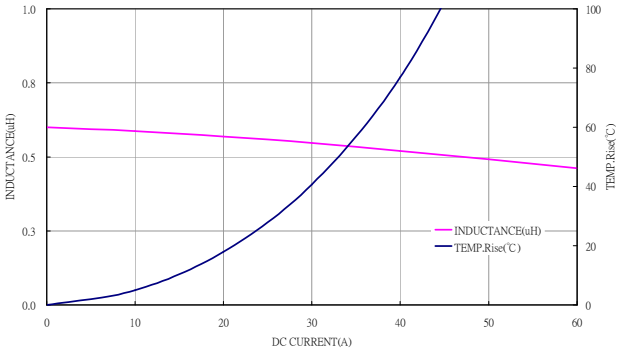
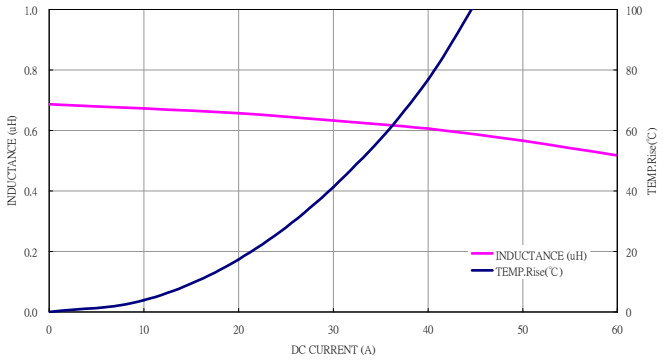


MMD-12CE-R68M-V1



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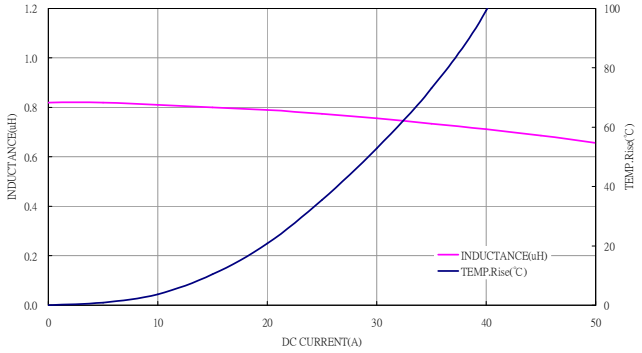
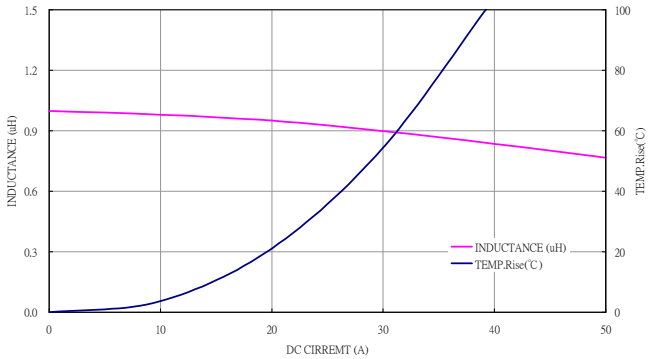
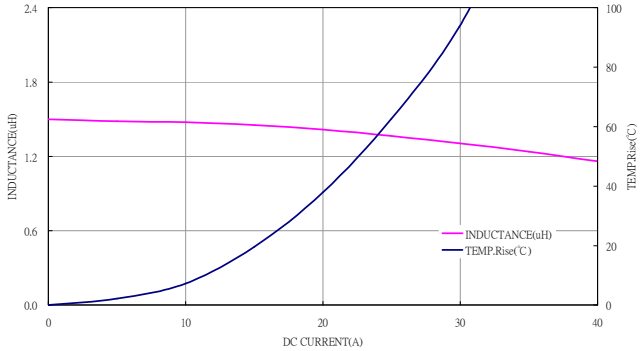


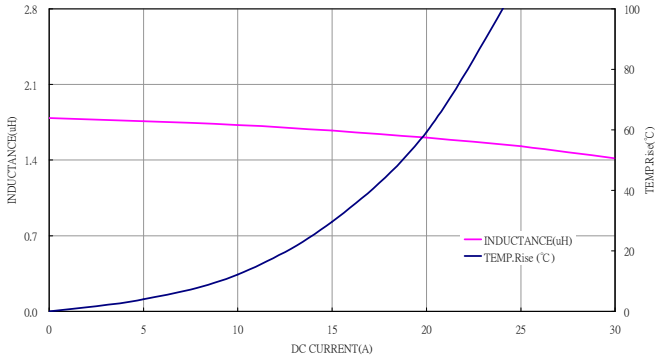
MMD-12CE-1R0M-V1



MMD-12CE-1R5M-V1



MMD-12CE-1R8M-V1



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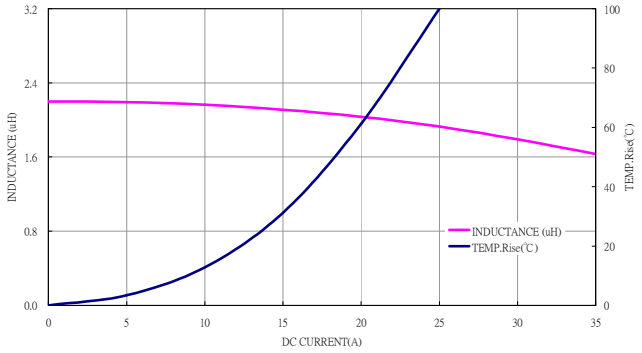
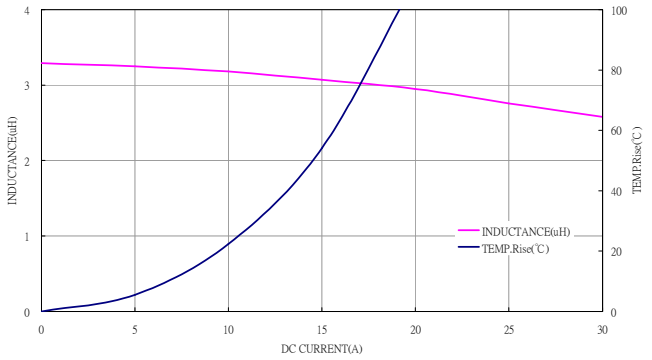
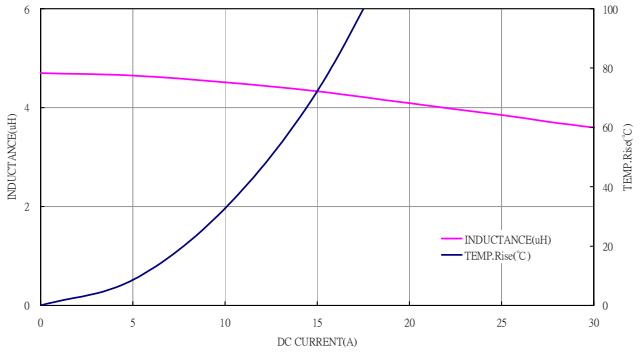


MMD-12CE-3R3M-V1

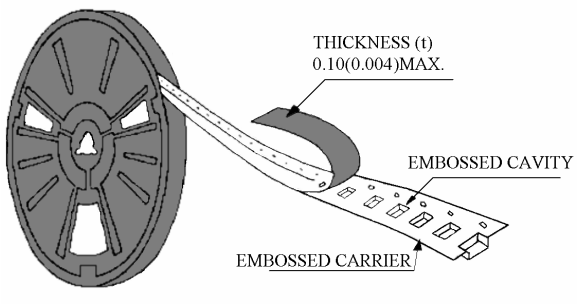


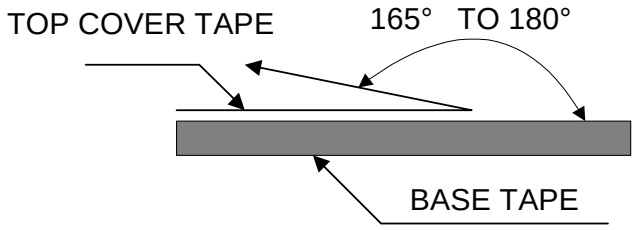
MMD-12CE-4R7M-V1



PACKAGING

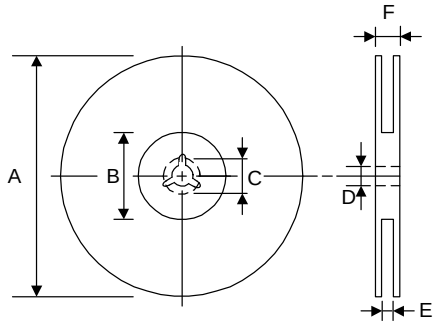
- **Peel-off Force**



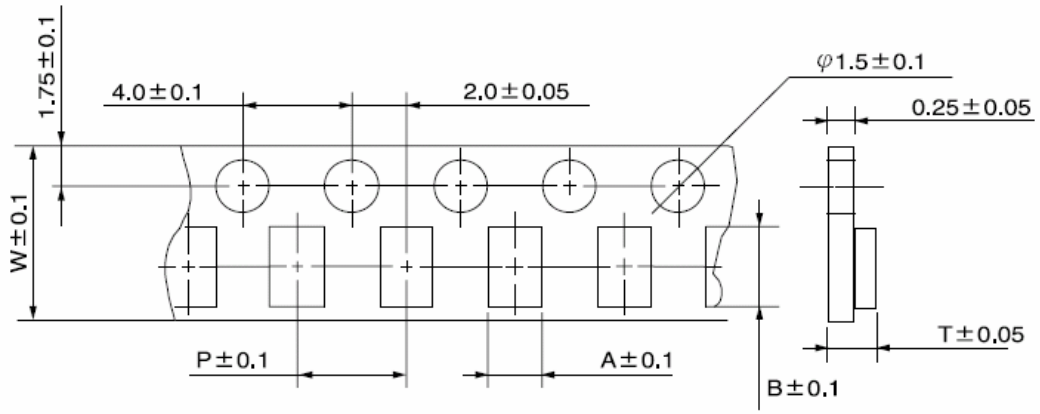


The force for peeling off cover tape is 10 to 70 grams in the arrow direction.

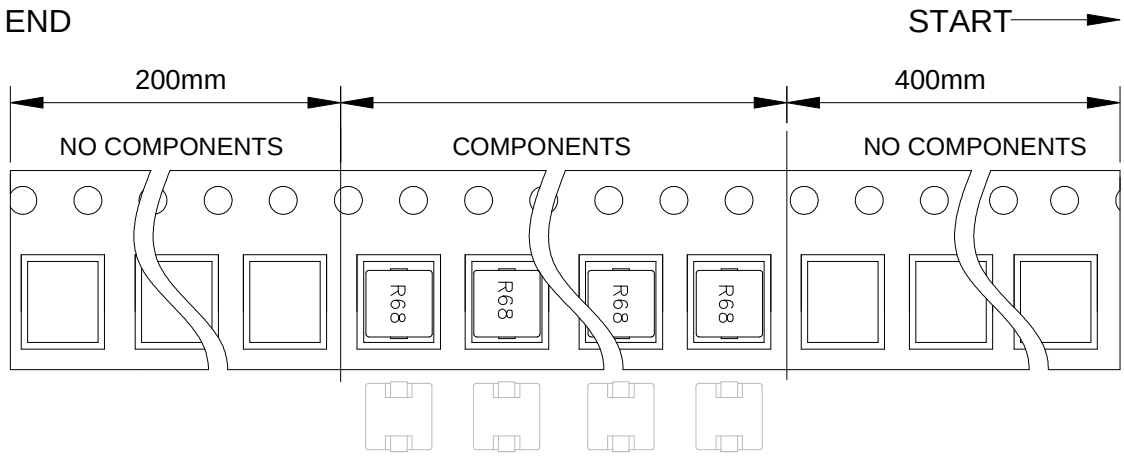
- **Dimension** (Unit: mm)



TYPE	A	B	C	D	E	F
330 mm	330±2	100±1	20±0.5	13±1	24.5±1	30±2



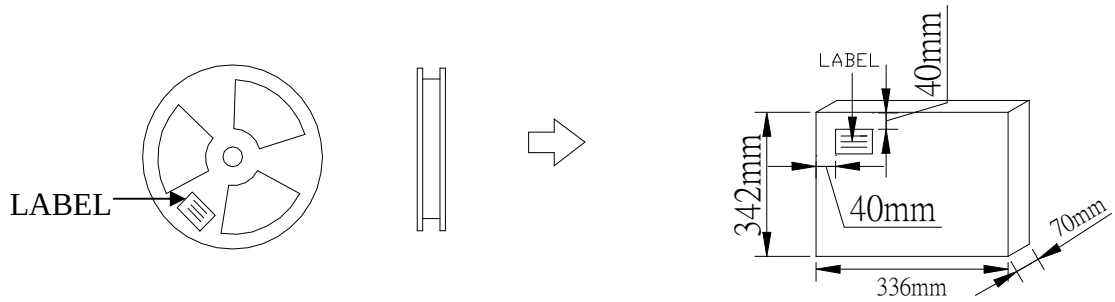
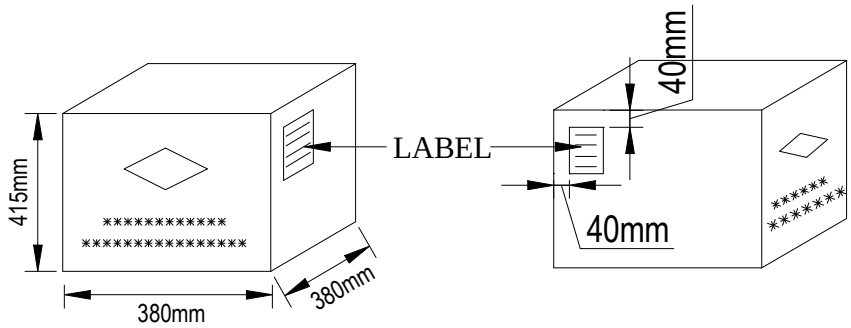
TYPE	SIZE	A	B	W	P	T
MMD	12CE	13.4	14.1	24	16	3.9



- **Taping Quantity**

SERIES	12CE
PCS/Reel	500

CARTON:
MIDDLE PACKAGING : 2 Reel /BOX



EXTERNAL PACKAGING : 5 BOX / CARTON