MORE® CHANCE | 茂昌电子

CUSTOMER :	STD
PRODUCTS :	Molding Typ SMD POWER INDUCTOR
PART NO :	MCSM-H Series
CUST P/ NO :	
DATE :	2022.12.07
SALES DEP :	
E-MAIL :	

VERSION :	REV.B
CHANGE PROJECT :	
BEFORE :	
AFTER :	
CHANGE DATE :	
CUSTOMER SIGNATURE :	

APPROVAL BY :	*CHECK BY :*	*DRAWN BY :*
Honey Wei	***Leo Wang***	***May Gao***

CHANGE HISTORY

Ver	Revision Items	Before Revision	After Revision	Date
Rev.A	新制定	-	-	2022.12.07
Rev.B	新增85尺寸			2023.3.15

Suzhou, Wuzhong District, Taihu East Road No.9, Wuluo science and Technology Park, 4th floor, 401/408 Room TEL：0512-6856-2977
TEL：0755-2738-9457

MCSM-H Series

- SHIELDED SMD POWER INDUCTOR
- Operating Temperature up tp -40 ℃ ~ 125 ℃
- High Current up to 75 A
- Low DCR down to 0.7 mOhms
- Environmental Lead free
- Environmental RoHS2.0 compliant
- Environmental halogen free
- Storage Temperature ：-40 ℃ ~ +85 ℃
- Packaging 13"Reel,Plastic tape:12/16/24/32mm wide.

FEATURES

. Lowest DCR/UH in this package size
. Ultra low buzz noise due to composite construction
. Frequency up to 5MHZ

Applications

. Laptops and PCs and Graphics cards.
· Voltage Regulator Module (VRM).
· DC/DC converter in distributed power systems or VRM applications
· Battery power systems
· DC/DC converters

PRODUCT IDENTIFICATION

MC	SM	63	Z	1R0	M	H
①	②	③	④	⑤	⑥	⑦

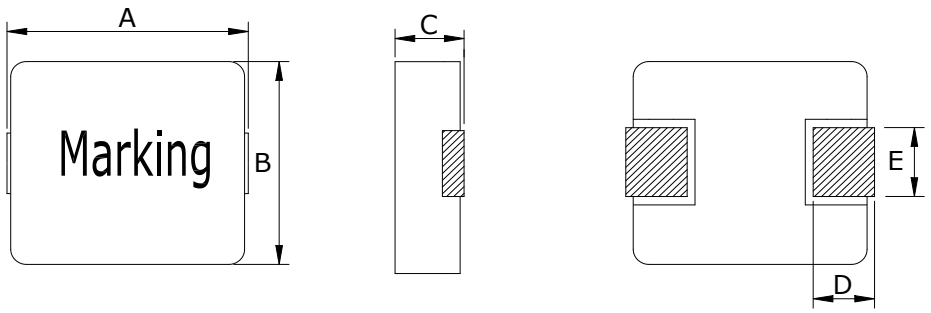
① Brand & Product classification
② Product Series NO.(SM：SMD Molding Typ Powder Inductor.)
③ External Dimensions.(63：L:6.0 × W:6.0 × H:3.0) [mm]
④ Separator code.
⑤ Inductance. (Exp. 1.0 uH = 1R0)

Example	Nominal Value
R47	0.47uH
R56	0.56uH
R68	0.68uH
1R0	1.0uH

⑥ Inductance Tolerance.(L：±15% ; M：±20% ; N：±30%)
⑦ Material Code.(H：H Type material.)

Mechanical & Dimensions

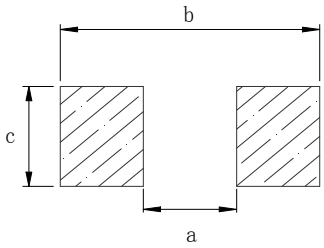
(Unit: mm)



Code	Dimensions
A	4.3 MAX
B	4.3 MAX
C	1.0 MAX
D	0.8±0.2
E	1.8±0.2

Recommend Land Pattern Dimensions

(Unit: mm)



Code	Dimensions
a	2.2 Typ
b	4.4 Typ
c	2.2 Typ

Electrical Characteristics

Part Number	Inductance[1] (μH)	DCR[2] (mΩ) Max	I-sat[3] (Amps)Typ	I-rms[4] (Amps)Typ	Marking	
MCSM41Z100MH	10.0±20%	336.0	1.8	1.5	100	

Note:

1.Inductance is measured at 100 KHz and 1.0 Vrms.

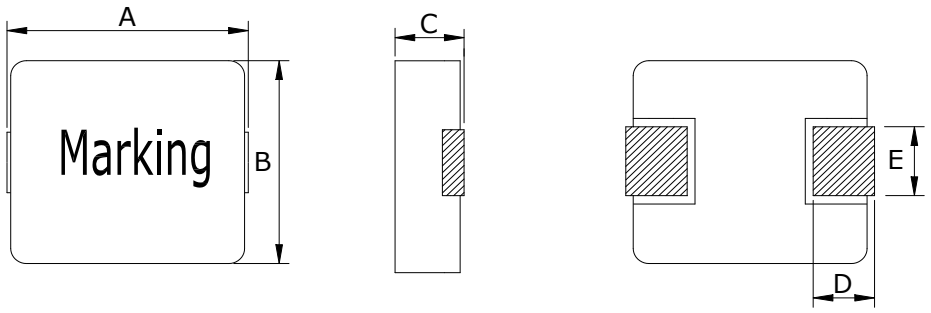
2.The nominal DCR is measured at 25℃ ambient temperature.

3.The I-sat that will cause initial inductance value approximately 30% rolloff at 25℃.

4.The I-rms that will cause temperature rise approximate 40°C without core loss.

Mechanical & Dimensions

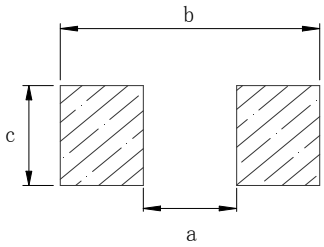
(Unit: mm)



Code	Dimensions
A	4.9 MAX
B	4.5 MAX
C	1.2 MAX
D	0.8±0.3
E	2.0±0.3

Recommend Land Pattern Dimensions

(Unit: mm)



Code	Dimensions
a	2.2 Typ
b	5.2 Typ
c	2.5 Typ

Electrical Characteristics

Part Number	Inductance[1] (μH)	DCR[2] (mΩ) Max	I-sat[3] (Amps)Typ	I-rms[4] (Amps)Typ	Marking	
MCSM412ZR15MH	0.15±20%	9.0	15.0	7.50	R15	
MCSM412ZR22MH	0.22±20%	11.0	11.0	7.00	R22	
MCSM412ZR33MH	0.33±20%	19.0	7.4	6.50	R33	
MCSM412ZR47MH	0.47±20%	21.0	6.8	6.00	R47	
MCSM412ZR68MH	0.68±20%	36.0	6.0	4.70	R68	
MCSM412Z1R0MH	1.0±20%	47.0	5.5	4.50	1R0	
MCSM412Z1R5MH	1.5±20%	75.0	4.0	3.25	1R5	
MCSM412Z2R2MH	2.2±20%	83.5	3.0	2.75	2R2	
MCSM412Z4R7MH	4.7±20%	195.0	2.2	1.80	4R7	

Note:

1.Inductance is measured at 100 KHz and 1.0 Vrms.

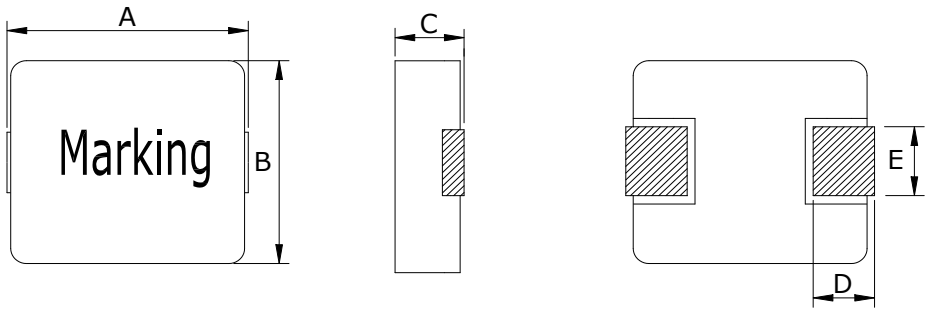
2.The nominal DCR is measured at 25℃ ambient temperature.

3.The I-sat that will cause initial inductance value approximately 30% rolloff at 25℃.

4.The I-rms that will cause temperature rise approximate 40°C without core loss.

Mechanical & Dimensions

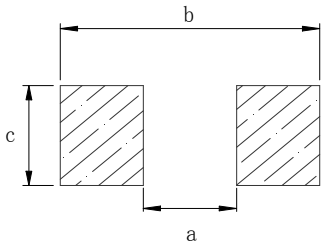
(Unit: mm)



Code	Dimensions
A	4.9 MAX
B	4.5 MAX
C	2.0 MAX
D	1.0±0.5
E	2.0±0.5

Recommend Land Pattern Dimensions

(Unit: mm)



Code	Dimensions
a	2.2 Typ
b	5.2 Typ
c	2.5 Typ

Electrical Characteristics

Part Number	Inductance[1] (μH)	DCR[2] (mΩ) Max	I-sat[3] (Amps)Typ	I-rms[4] (Amps)Typ	Marking	
MCSM42ZR10MH	0.10±20%	4.0	22.0	13.0	R10	
MCSM42ZR22MH	0.22±20%	6.6	12.5	9.5	R22	
MCSM42ZR33MH	0.33±20%	11.0	12.0	8.5	R33	
MCSM42ZR47MH	0.47±20%	14.0	9.5	7.5	R47	
MCSM42ZR56MH	0.56±20%	16.0	9.0	7.0	R56	
MCSM42ZR68MH	0.68±20%	18.0	8.0	7.0	R68	
MCSM42Z1R0MH	1.0±20%	27.0	7.0	6.0	1R0	
MCSM42Z1R2MH	1.2±20%	27.0	6.5	6.0	1R2	
MCSM42Z1R5MH	1.5±20%	46.0	5.5	5.0	1R5	
MCSM42Z2R2MH	2.2±20%	58.0	5.0	4.5	2R2	
MCSM42Z3R3MH	3.3±20%	87.0	3.5	3.3	3R3	
MCSM42Z4R7MH	4.7±20%	105.0	3.0	2.8	4R7	
MCSM42Z6R8MH	6.8±20%	175.0	2.5	2.4	6R8	
MCSM42Z100MH	10.0±20%	282.0	2.0	1.6	100	

Note:

1.Inductance is measured at 100 KHz and 1.0 Vrms.

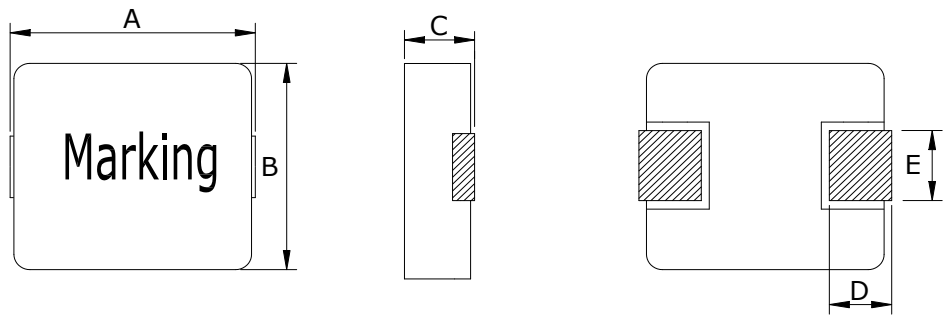
2.The nominal DCR is measured at 25℃ ambient temperature.

3.The I-sat that will cause initial inductance value approximately 30% rolloff at 25℃.

4.The I-rms that will cause temperature rise approximate 40°C without core loss.

Mechanical & Dimensions

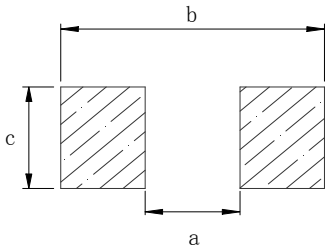
(Unit: mm)



Code	Dimensions
A	5.9 MAX
B	5.5 MAX
C	1.8 MAX
D	1.1±0.3
E	2.2±0.5

Recommend Land Pattern Dimensions

(Unit: mm)



Code	Dimensions
a	2.2 Typ
b	6.0 Typ
c	2.5 Typ

Electrical Characteristics

Part Number	Inductance[1] (μH)	DCR[2] (mΩ) Max	I-sat[3] (Amps)Typ	I-rms[4] (Amps)Typ	Marking	
MCSM518ZR47MH	0.47±20%	9.0	15.5	10.5	R47	
MCSM518ZR56MH	0.56±20%	10.0	15.0	9.5	R56	
MCSM518ZR68MH	0.68±20%	13.8	11.2	8.9	R68	
MCSM518Z1R0MH	1.00±20%	17.0	9.0	8.0	1R0	
MCSM518Z1R5MH	1.50±20%	26.0	8.0	7.5	1R5	
MCSM518Z2R2MH	2.20±20%	35.0	6.5	5.0	2R2	
MCSM518Z3R3MH	3.30±20%	58.0	5.0	4.5	3R3	
MCSM518Z4R7MH	4.70±20%	85.0	4.0	3.5	4R7	
MCSM518Z6R8MH	6.80±20%	120.0	3.4	2.8	6R8	
MCSM518Z100MH	10.0±20%	155.0	3.0	2.5	100	

Note:

1.Inductance is measured at 100 KHz and 1.0 Vrms.

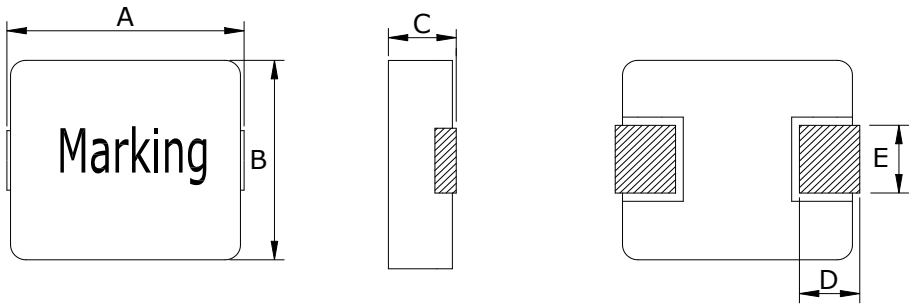
2.The nominal DCR is measured at 25℃ ambient temperature.

3.The I-sat that will cause initial inductance value approximately 30% rolloff at 25℃.

4.The I-rms that will cause temperature rise approximate 40°C without core loss.

Mechanical & Dimensions

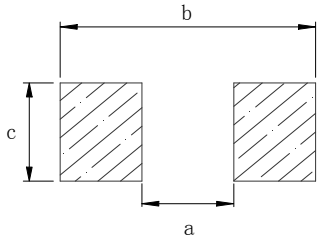
(Unit: mm)



Code	Dimensions
A	5.9 MAX
B	5.5 MAX
C	3.0 MAX
D	1.2±0.3
E	2.2±0.5

Recommend Land Pattern Dimensions

(Unit: mm)



Code	Dimensions
a	2.2 Typ
b	6.0 Typ
c	2.5 Typ

Electrical Characteristics

Part Number	Inductance[1] (μH)	DCR[2] (mΩ) Max	I-sat[3] (Amps)Typ	I-rms[4] (Amps)Typ	Marking	
MCSM53ZR10MH	0.1 ±20%	3.0	30.0	25.0	R10	
MCSM53ZR20MH	0.2 ±20%	3.9	20.0	14.0	R20	
MCSM53ZR33MH	0.33±20%	5.5	18.0	14.0	R33	
MCSM53ZR47MH	0.47±20%	8.5	15.0	11.0	R47	
MCSM53ZR68MH	0.68±20%	12.0	11.5	9.0	R68	
MCSM53Z1R0MH	1.0±20%	14.0	10.0	8.5	1R0	
MCSM53Z1R2MH	1.2±20%	16.0	9.5	8.5	1R2	
MCSM53Z1R5MH	1.5±20%	25.0	9.0	8.2	1R5	
MCSM53Z2R2MH	2.2±20%	29.0	7.0	7.0	2R2	
MCSM53Z3R3MH	3.3±20%	38.0	6.0	5.5	3R3	
MCSM53Z4R7MH	4.7±20%	60.0	4.6	4.5	4R7	
MCSM53Z6R8MH	6.8±20%	90.0	3.6	3.5	6R8	
MCSM53Z100MH	10.0±20%	125.0	3.5	3.2	100	

Note:

1.Inductance is measured at 100 KHz and 1.0 Vrms.

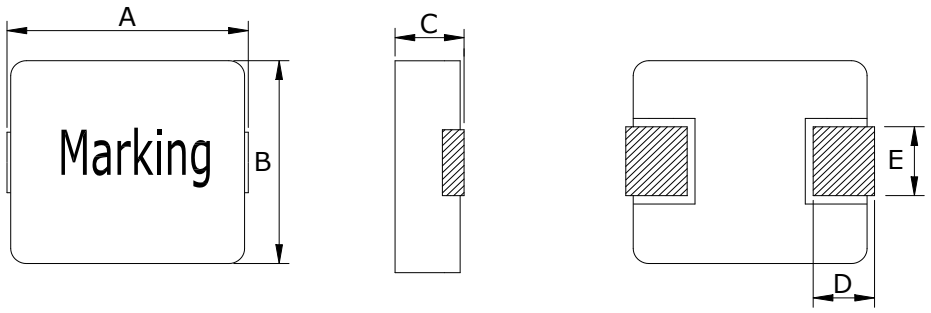
2.The nominal DCR is measured at 25℃ ambient temperature.

3.The I-sat that will cause initial inductance value approximately 30% rolloff at 25℃.

4.The I-rms that will cause temperature rise approximate 40°C without core loss.

Mechanical & Dimensions

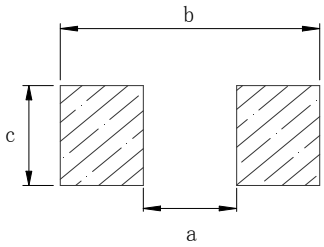
(Unit: mm)



Code	Dimensions
A	6.4 MAX
B	6.4 MAX
C	1.0 MAX
D	1.75±0.3
E	4.0±0.3

Recommend Land Pattern Dimensions

(Unit: mm)



Code	Dimensions
a	2.8 Typ
b	7.5 Typ
c	4.5 Typ

Electrical Characteristics

Part Number	Inductance[1] (μH)	DCR[2] (mΩ) Max	I-sat[3] (Amps)Typ	I-rms[4] (Amps)Typ	Marking	
MCSM61Z4R7MH	4.7±20%	172.0	2.8	2.2	4R7	
MCSM61Z6R8MH	6.8±20%	197.0	2.5	2.0	6R8	
MCSM61Z100MH	10.0±20%	310.0	2.1	1.6	100	

Note:

1.Inductance is measured at 100 KHz and 1.0 Vrms.

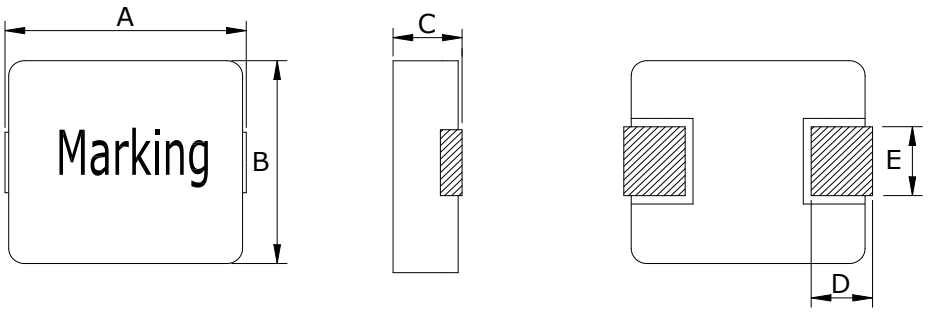
2.The nominal DCR is measured at 25℃ ambient temperature.

3.The I-sat that will cause initial inductance value approximately 30% rolloff at 25℃.

4.The I-rms that will cause temperature rise approximate 40°C without core loss.

Mechanical & Dimensions

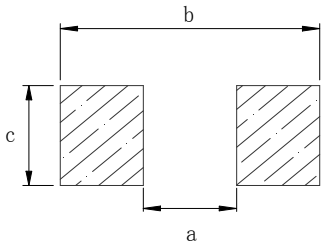
(Unit: mm)



Code	Dimensions
A	7.6 MAX
B	6.8 MAX
C	1.5 MAX
D	1.6±0.3
E	3.0±0.3

Recommend Land Pattern Dimensions

(Unit: mm)



Code	Dimensions
a	3.7 Typ
b	8.4 Typ
c	3.5 Typ

Electrical Characteristics

Part Number	Inductance[1] (μH)	DCR[2] (mΩ) Max	I-sat[3] (Amps)Typ	I-rms[4] (Amps)Typ	Marking	
MCSM615ZR47MH	0.47±20%	8.5	16.0	10.0	R47	
MCSM615ZR56MH	0.56±20%	11.0	14.0	9.0	R56	
MCSM615ZR68MH	0.68±20%	12.0	12.0	8.5	R68	
MCSM615ZR82MH	0.82±20%	17.0	10.0	8.0	R82	
MCSM615Z1R0MH	1.0±20%	21.0	9.0	6.0	1R0	
MCSM615Z2R2MH	2.2±20%	54.0	7.0	3.8	2R2	
MCSM615Z3R3MH	3.3±20%	63.0	5.5	3.5	3R3	
MCSM615Z4R7MH	4.7±20%	85.0	5.0	3.2	4R7	
MCSM615Z6R8MH	6.8±20%	135.0	4.0	2.5	6R8	
MCSM615Z100MH	10.0±20%	175.0	3.0	2.0	100	

Note:

1.Inductance is measured at 100 KHz and 1.0 Vrms.

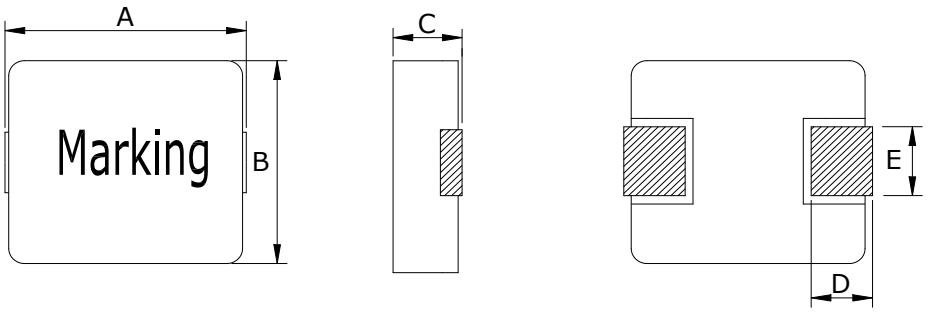
2.The nominal DCR is measured at 25℃ ambient temperature.

3.The I-sat that will cause initial inductance value approximately 30% rolloff at 25℃.

4.The I-rms that will cause temperature rise approximate 40°C without core loss.

Mechanical & Dimensions

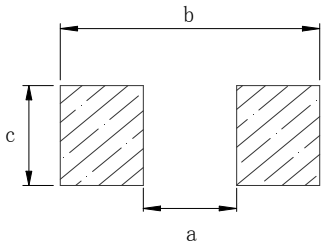
(Unit: mm)



Code	Dimensions
A	7.6 MAX
B	6.8 MAX
C	1.8 MAX
D	1.6±0.3
E	3.0±0.3

Recommend Land Pattern Dimensions

(Unit: mm)



Code	Dimensions
a	3.7 Typ
b	8.4 Typ
c	3.5 Typ

Electrical Characteristics

Part Number	Inductance[1] (μH)	DCR[2] (mΩ) Max	I-sat[3] (Amps)Typ	I-rms[4] (Amps)Typ	Marking	
MCSM618ZR10MH	0.10±20%	2.3	38.0	25.0	R10	
MCSM618ZR22MH	0.22±20%	3.5	24.0	22.0	R22	
MCSM618ZR47MH	0.47±20%	8.4	18.0	11.5	R47	
MCSM618ZR68MH	0.68±20%	12.0	16.5	9.5	R68	
MCSM618Z1R0MH	1.0±20%	16.0	12.0	8.5	1R0	
MCSM618Z1R5MH	1.5±20%	26.0	9.2	8.0	1R5	
MCSM618Z2R2MH	2.2±20%	35.0	8.0	7.0	2R2	
MCSM618Z3R3MH	3.3±20%	50.0	6.0	4.5	3R3	
MCSM618Z4R7MH	4.7±20%	62.0	5.0	4.0	4R7	
MCSM618Z6R8MH	6.8±20%	110.0	4.5	3.0	6R8	
MCSM618Z100MH	10.0±20%	155.0	4.0	2.3	100	
MCSM618Z220MH	22.0±20%	350.0	2.3	1.8	220	

Note:

1.Inductance is measured at 100 KHz and 1.0 Vrms.

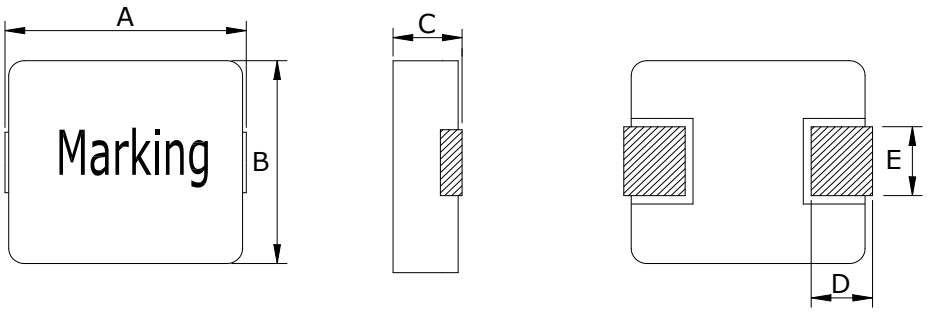
2.The nominal DCR is measured at 25℃ ambient temperature.

3.The I-sat that will cause initial inductance value approximately 30% rolloff at 25℃.

4.The I-rms that will cause temperature rise approximate 40°C without core loss.

Mechanical & Dimensions

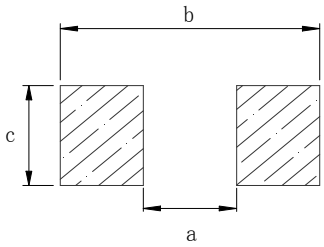
(Unit: mm)



Code	Dimensions
A	7.6 MAX
B	6.8 MAX
C	2.4 MAX
D	1.6±0.3
E	3.0±0.3

Recommend Land Pattern Dimensions

(Unit: mm)



Code	Dimensions
a	3.7 Typ
b	8.4 Typ
c	3.5 Typ

Electrical Characteristics

Part Number	Inductance[1] (μH)	DCR[2] (mΩ) Max	I-sat[3] (Amps)Typ	I-rms[4] (Amps)Typ	Marking	
MCSM624ZR22MH	0.22±20%	3.0	34.0	21.0	R22	
MCSM624ZR33MH	0.33±20%	4.1	24.5	18.0	R33	
MCSM624ZR47MH	0.47±20%	5.1	22.0	15.0	R47	
MCSM624ZR56MH	0.56±20%	6.5	17.0	13.0	R56	
MCSM624ZR68MH	0.68±20%	7.0	16.0	12.0	R68	
MCSM624Z1R0MH	1.0±20%	13.5	15.0	9.0	1R0	
MCSM624Z1R5MH	1.5±20%	20.0	13.5	8.2	1R5	
MCSM624Z2R2MH	2.2±20%	28.0	10.0	7.0	2R2	
MCSM624Z3R3MH	3.3±20%	39.0	8.0	5.5	3R3	
MCSM624Z4R7MH	4.7±20%	50.0	6.5	5.0	4R7	
MCSM624Z6R8MH	6.8±20%	70.0	6.0	4.0	6R8	
MCSM624Z100MH	10.0±20%	101.0	4.0	3.1	100	
MCSM624Z150MH	15.0±20%	160.0	3.3	2.5	150	
MCSM624Z220MH	22.0±20%	230.0	2.5	2.0	220	

Note:

1.Inductance is measured at 100 KHz and 1.0 Vrms.

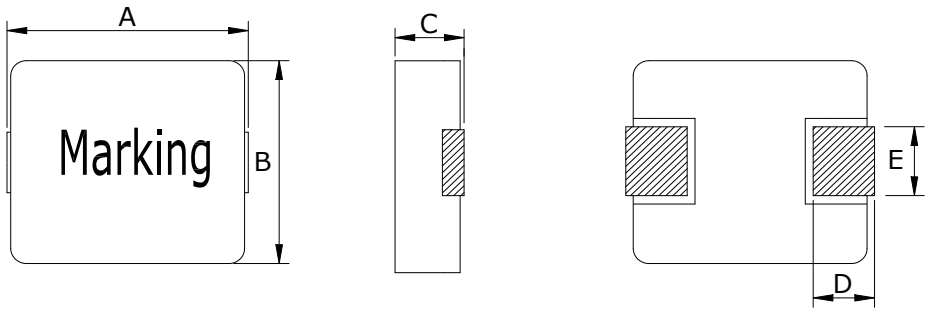
2.The nominal DCR is measured at 25℃ ambient temperature.

3.The I-sat that will cause initial inductance value approximately 30% rolloff at 25℃.

4.The I-rms that will cause temperature rise approximate 40°C without core loss.

Mechanical & Dimensions

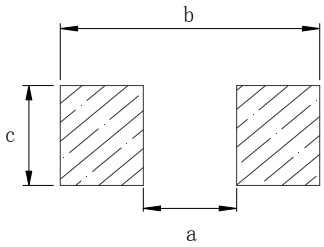
(Unit: mm)



Code	Dimensions
A	7.6 MAX
B	6.9 MAX
C	3.0 MAX
D	1.6±0.3
E	3.0±0.3

Recommend Land Pattern Dimensions

(Unit: mm)



Code	Dimensions
a	3.7 Typ
b	8.4 Typ
c	3.5 Typ

Electrical Characteristics

Part Number	Inductance[1] (μH)	DCR[2] (mΩ) Max	I-sat[3] (Amps)Typ	I-rms[4] (Amps)Typ	Marking	
MCSM63ZR10MH	0.1±20%	1.7	60.0	32.5	R10	
MCSM63ZR22MH	0.22±20%	3.0	35.0	24.0	R22	
MCSM63ZR33MH	0.33±20%	3.5	25.0	21.0	R33	
MCSM63ZR47MH	0.47±20%	4.1	20.0	18.0	R47	
MCSM63ZR56MH	0.56±20%	4.5	18.0	16.5	R56	
MCSM63ZR68MH	0.68±20%	5.3	17.0	16.0	R68	
MCSM63ZR82MH	0.82±20%	6.0	16.0	14.0	R82	
MCSM63Z1R0MH	1.0±20%	7.4	15.0	12.0	1R0	
MCSM63Z1R5MH	1.5±20%	12.1	12.0	12.0	1R5	
MCSM63Z2R2MH	2.2±20%	15.0	11.0	9.5	2R2	
MCSM63Z3R3MH	3.3±20%	22.0	9.5	8.5	3R3	
MCSM63Z4R7MH	4.7±20%	33.0	9.0	6.0	4R7	
MCSM63Z5R6MH	5.6±20%	42.0	6.5	5.5	5R6	
MCSM63Z6R8MH	6.8±20%	48.0	6.1	5.0	6R8	
MCSM63Z8R2MH	8.2±20%	60.0	5.5	5.0	8R2	
MCSM63Z100MH	10.0±20%	68.0	5.5	4.5	100	
MCSM63Z150MH	15.0±20%	113.0	4.0	3.0	150	
MCSM63Z220MH	22.0±20%	170.0	3.1	2.5	220	
MCSM63Z330MH	33.0±20%	270.0	2.5	2.1	330	
MCSM63Z470MH	47.0±20%	385.0	2.0	1.5	470	

Note:

1.Inductance is measured at 100 KHz and 1.0 Vrms.

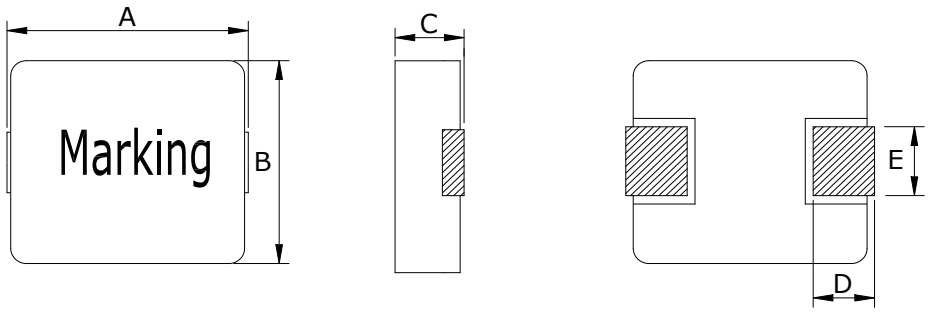
2.The nominal DCR is measured at 25℃ ambient temperature.

3.The I-sat that will cause initial inductance value approximately 30% rolloff at 25℃.

4.The I-rms that will cause temperature rise approximate 40°C without core loss.

Mechanical & Dimensions

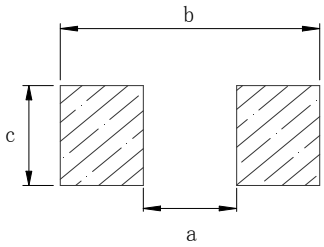
(Unit: mm)



Code	Dimensions
A	7.6 MAX
B	6.9 MAX
C	4.0 MAX
D	1.6±0.3
E	2.8±0.5

Recommend Land Pattern Dimensions

(Unit: mm)



Code	Dimensions
a	3.7 Typ
b	8.4 Typ
c	3.5 Typ

Electrical Characteristics

Part Number	Inductance[1] (μH)	DCR[2] (mΩ) Max	I-sat[3] (Amps)Typ	I-rms[4] (Amps)Typ	Marking	
MCSM64ZR15MH	0.15±20%	0.66±7%	50.0	40.0	R15	
MCSM64ZR22MH	0.22±20%	0.98±7%	35.0	35.0	R22	
MCSM64ZR68MH	0.68±20%	4.8	19.0	17.0	R68	
MCSM64Z1R0MH	1.0±20%	6.6	16.0	13.5	1R0	
MCSM64Z1R5MH	1.5±20%	10.0	12.5	12.4	1R5	
MCSM64Z2R2MH	2.2±20%	14.0	11.0	10.0	2R2	
MCSM64Z3R3MH	3.3±20%	20.0	9.5	8.5	3R3	
MCSM64Z4R7MH	4.7±20%	30.0	9.0	6.5	4R7	
MCSM64Z6R8MH	6.8±20%	45.0	6.5	5.5	6R8	
MCSM64Z8R2MH	8.2±20%	55.0	6.0	5.2	8R2	
MCSM64Z100MH	10.0±20%	65.0	6.0	4.8	100	
MCSM64Z150MH	15.0±20%	95.0	4.5	3.7	150	
MCSM64Z220MH	22.0±20%	125.0	4.0	3.3	220	
MCSM64Z330MH	33.0±20%	240.0	3.0	2.2	330	
MCSM64Z470MH	47.0±20%	320.0	2.5	1.8	470	

Note:

1.Inductance is measured at 100 KHz and 1.0 Vrms.

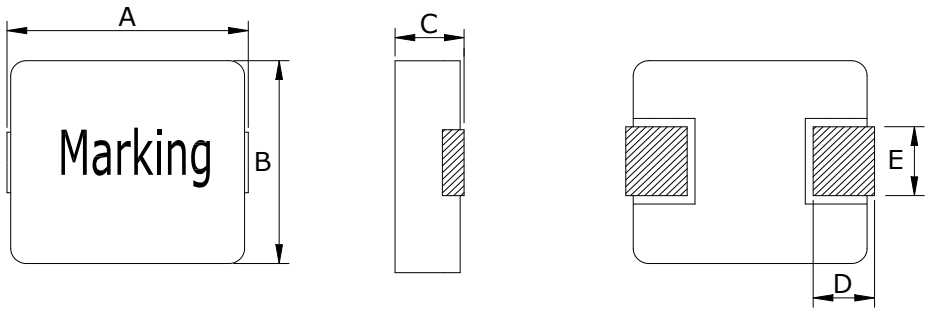
2.The nominal DCR is measured at 25℃ ambient temperature.

3.The I-sat that will cause initial inductance value approximately 30% rolloff at 25℃.

4.The I-rms that will cause temperature rise approximate 40°C without core loss.

Mechanical & Dimensions

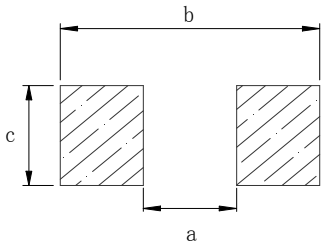
(Unit: mm)



Code	Dimensions
A	7.6 MAX
B	6.9 MAX
C	5.0 MAX
D	1.6±0.3
E	3.0±0.3

Recommend Land Pattern Dimensions

(Unit: mm)



Code	Dimensions
a	3.7 Typ
b	8.4 Typ
c	3.5 Typ

Electrical Characteristics

Part Number	Inductance[1] (μH)	DCR[2] (mΩ) Max	I-sat[3] (Amps)Typ	I-rms[4] (Amps)Typ	Marking	
MCSM65ZR47MH	0.47±20%	3.9	21.0	20.0	R47	
MCSM65ZR68MH	0.68±20%	4.5	18.0	16.5	R68	
MCSM65Z1R0MH	1.0±20%	6.6	16.0	12.0	1R0	
MCSM65Z1R5MH	1.5±20%	10.0	13.0	9.5	1R5	
MCSM65Z2R2MH	2.2±20%	12.5	11.0	9.0	2R2	
MCSM65Z3R3MH	3.3±20%	22.0	10.0	8.5	3R3	
MCSM65Z4R7MH	4.7±20%	29.0	8.0	6.0	4R7	
MCSM65Z6R8MH	6.8±20%	41.0	6.3	5.8	6R8	
MCSM65Z8R2MH	8.2±20%	48.0	5.5	5.5	8R2	
MCSM65Z100MH	10.0±20%	60.0	5.3	4.5	100	
MCSM65Z150MH	15.0±20%	90.0	4.0	3.1	150	
MCSM65Z220MH	22.0±20%	140.0	3.5	2.6	220	
MCSM65Z330MH	33.0±20%	190.0	3.0	2.3	330	
MCSM65Z470MH	47.0±20%	230.0	2.6	2.0	470	

Note:

1.Inductance is measured at 100 KHz and 1.0 Vrms.

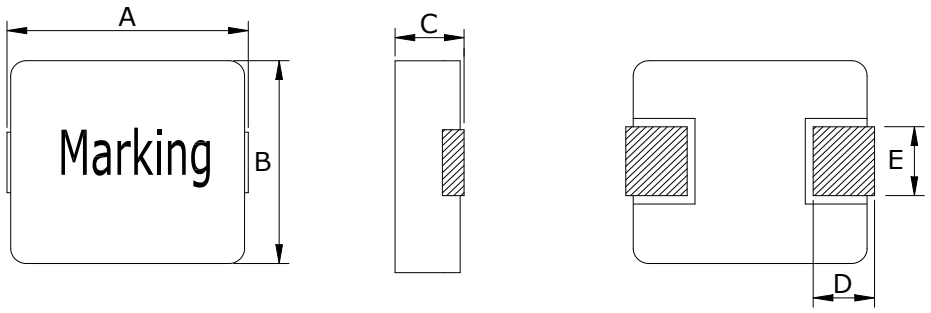
2.The nominal DCR is measured at 25℃ ambient temperature.

3.The I-sat that will cause initial inductance value approximately 30% rolloff at 25℃.

4.The I-rms that will cause temperature rise approximate 40°C without core loss.

Mechanical & Dimensions

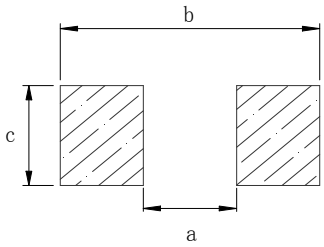
(Unit: mm)



Code	Dimensions
A	9.2 MAX
B	8.3 MAX
C	5.0 MAX
D	1.8±0.3
E	3.0±0.3

Recommend Land Pattern Dimensions

(Unit: mm)



Code	Dimensions
a	4.8 Typ
b	9.8 Typ
c	3.5 Typ

Electrical Characteristics

Part Number	Inductance[1] (μH)	DCR[2] (mΩ) Max	I-sat[3] (Amps)Typ	I-rms[4] (Amps)Typ	Marking	
MCSM85Z1R0MH	1.0±20%	5.6	24.0	18.0	1R0	
MCSM85Z1R2MH	1.2±20%	5.6	19.0	16.0	1R2	
MCSM85Z1R5MH	1.5±20%	7.8	17.0	14.0	1R5	
MCSM85Z2R2MH	2.2±20%	10.0	16.0	12.0	2R2	
MCSM85Z3R3MH	3.3±20%	13.5	15.0	10.0	3R3	
MCSM85Z6R8MH	6.8±20%	31.0	12.0	8.0	6R8	
MCSM85Z220MH	22.0±20%	95.0	7.0	4.5	220	

Note:

1.Inductance is measured at 100 KHz and 1.0 Vrms.

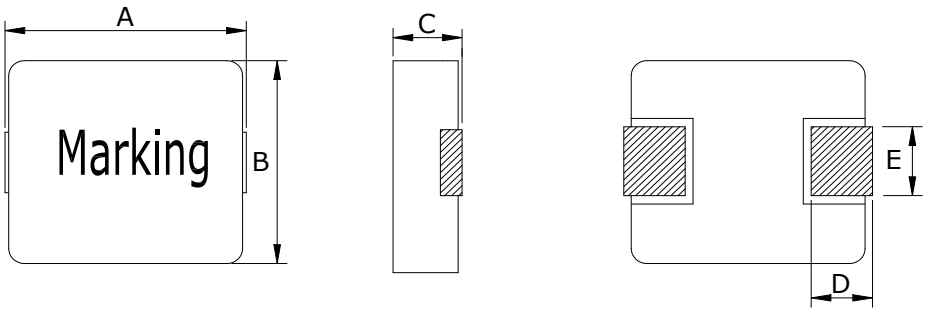
2.The nominal DCR is measured at 25℃ ambient temperature.

3.The I-sat that will cause initial inductance value approximately 30% rolloff at 25℃.

4.The I-rms that will cause temperature rise approximate 40°C without core loss.

Mechanical & Dimensions

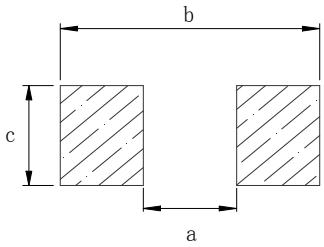
(Unit: mm)



Code	Dimensions
A	11.5 MAX
B	10.3 MAX
C	3.0 MAX
D	2.0±0.5
E	3.0±0.5

Recommend Land Pattern Dimensions

(Unit: mm)



Code	Dimensions
a	5.4 Typ
b	13.6 Typ
c	4.1 Typ

Electrical Characteristics

Part Number	Inductance[1] (μH)	DCR[2] (mΩ) Max	I-sat[3] (Amps)Typ	I-rms[4] (Amps)Typ	Marking	
MCSM103ZR22MH	0.22±20%	1.2	50.0	33.0	R22	
MCSM103ZR33MH	0.33±20%	1.6	32.0	23.0	R33	
MCSM103ZR36MH	0.36±20%	1.6	28.0	23.0	R36	
MCSM103ZR47MH	0.47±20%	2.5	26.0	22.0	R47	
MCSM103ZR82MH	0.82±20%	3.7	23.0	18.0	R82	
MCSM103Z1R0MH	1.0±20%	6.0	21.0	15.0	1R0	
MCSM103Z2R2MH	2.2±20%	9.0	14.0	11.0	2R2	
MCSM103Z3R3MH	3.3±20%	16.0	12.0	9.0	3R3	
MCSM103Z4R7MH	4.7±20%	24.0	10.0	7.0	4R7	
MCSM103Z8R2MH	8.2±20%	45.0	7.0	5.0	8R2	
MCSM103Z330MH	33.0±20%	160.0	4.0	2.6	330	

Note:

1.Inductance is measured at 100 KHz and 1.0 Vrms.

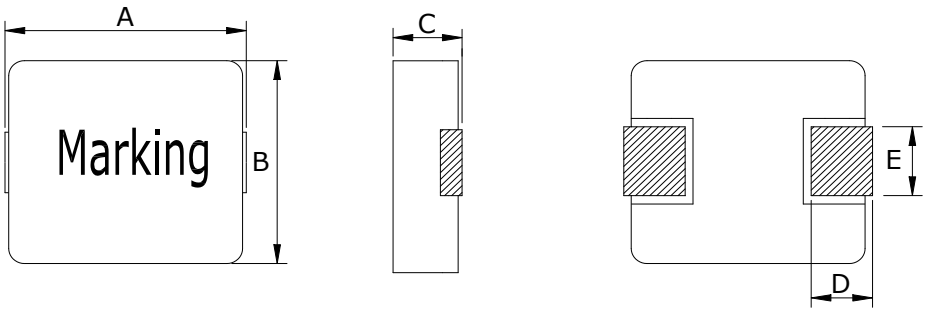
2.The nominal DCR is measured at 25℃ ambient temperature.

3.The I-sat that will cause initial inductance value approximately 30% rolloff at 25℃.

4.The I-rms that will cause temperature rise approximate 40°C without core loss.

Mechanical & Dimensions

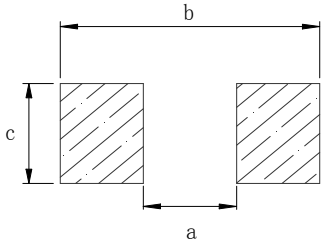
(Unit: mm)



Code	Dimensions
A	11.5 MAX
B	10.6 MAX
C	4.0 MAX
D	2.0±0.5
E	3.0±0.5

Recommend Land Pattern Dimensions

(Unit: mm)



Code	Dimensions
a	5.4 Typ
b	13.6 Typ
c	4.1 Typ

Electrical Characteristics

Part Number	Inductance[1] (μH)	DCR[2] (mΩ) Max	I-sat[3] (Amps)Typ	I-rms[4] (Amps)Typ	Marking	
MCSM104ZR15MH	0.15±20%	0.65	75.0	45.0	R15	
MCSM104ZR22MH	0.22±20%	1.0	60.0	36.0	R22	
MCSM104ZR30MH	0.30±20%	1.1	45.0	35.0	R30	
MCSM104ZR36MH	0.36±20%	1.2	45.0	32.0	R36	
MCSM104ZR47MH	0.47±20%	1.7	40.0	30.0	R47	
MCSM104ZR56MH	0.56±20%	1.8	33.0	25.0	R56	
MCSM104ZR68MH	0.68±20%	2.4	30.0	23.0	R68	
MCSM104ZR80MH	0.8±20%	2.7	29.0	23.0	R80	
MCSM104Z1R0MH	1.0±20%	3.3	28.0	19.0	1R0	
MCSM104Z1R5MH	1.5±20%	4.2	24.0	16.0	1R5	
MCSM104Z2R2MH	2.2±20%	7.0	16.5	12.0	2R2	
MCSM104Z3R3MH	3.3±20%	11.8	16.0	11.0	3R3	
MCSM104Z4R7MH	4.7±20%	20.0	13.0	9.0	4R7	
MCSM104Z6R8MH	6.8±20%	25.0	12.0	8.5	6R8	
MCSM104Z8R2MH	8.2±20%	27.0	9.0	8.0	8R2	
MCSM104Z100MH	10.0±20%	30.0	8.6	7.8	100	
MCSM104Z150MH	15.0±20%	45.0	7.0	6.5	150	
MCSM104Z220MH	22.0±20%	66.0	5.5	5.0	220	
MCSM104Z330MH	33.0±20%	92.0	4.8	4.4	330	

Note:

1.Inductance is measured at 100 KHz and 1.0 Vrms.

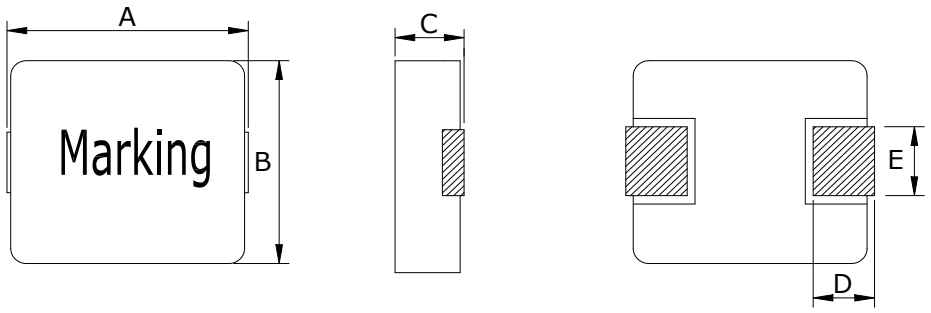
2.The nominal DCR is measured at 25℃ ambient temperature.

3.The I-sat that will cause initial inductance value approximately 30% rolloff at 25℃.

4.The I-rms that will cause temperature rise approximate 40°C without core loss.

Mechanical & Dimensions

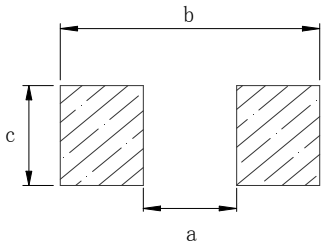
(Unit: mm)



Code	Dimensions
A	11.5 MAX
B	10.6 MAX
C	4.0 MAX
D	2.0±0.5
E	3.0±0.5

Recommend Land Pattern Dimensions

(Unit: mm)



Code	Dimensions
a	5.4 Typ
b	13.6 Typ
c	4.1 Typ

Electrical Characteristics

Part Number	Inductance[1] (μH)	DCR[2] (mΩ) Max	I-sat[3] (Amps)Typ	I-rms[4] (Amps)Typ	Marking	
MCSM104Z470MH	47.0±20%	145.0	3.5	3.3	470	
MCSM104Z680MH	68.0±20%	195.0	3.0	2.5	680	
MCSM104Z820MH	82.0±20%	285.0	2.8	2.3	820	
MCSM104Z101MH	100±20%	340.0	2.3	2.0	101	

Note:

1.Inductance is measured at 100 KHz and 1.0 Vrms.

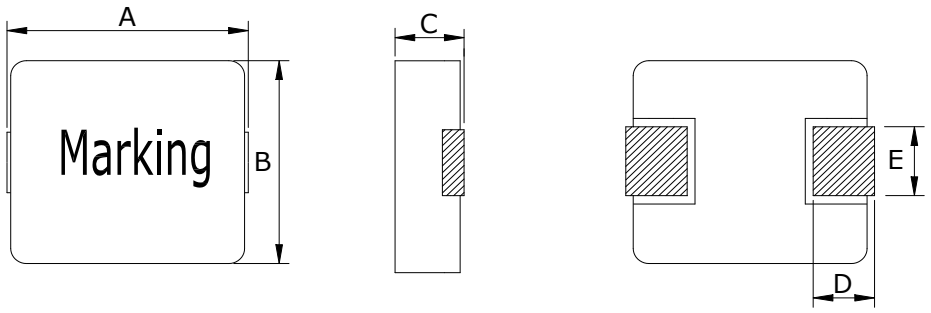
2.The nominal DCR is measured at 25℃ ambient temperature.

3.The I-sat that will cause initial inductance value approximately 30% rolloff at 25℃.

4.The I-rms that will cause temperature rise approximate 40°C without core loss.

Mechanical & Dimensions

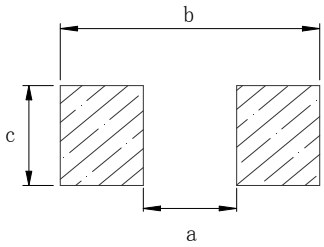
(Unit: mm)



Code	Dimensions
A	11.5 MAX
B	10.6 MAX
C	5.0 MAX
D	2.0±0.5
E	3.0±0.5

Recommend Land Pattern Dimensions

(Unit: mm)



Code	Dimensions
a	5.4 Typ
b	13.6 Typ
c	4.1 Typ

Electrical Characteristics

Part Number	Inductance[1] (μH)	DCR[2] (mΩ) Max	I-sat[3] (Amps)Typ	I-rms[4] (Amps)Typ	Marking	
MCSM105ZR22MH	0.22±20%	0.8	65.0	37.0	R22	
MCSM105Z1R0MH	1.0±20%	3.0	30.0	23.0	1R0	
MCSM105Z1R5MH	1.5±20%	3.8	25.0	21.0	1R5	
MCSM105Z2R2MH	2.2±20%	6.0	19.0	15.0	2R2	
MCSM105Z3R3MH	3.3±20%	10.0	16.0	13.0	3R3	
MCSM105Z4R7MH	4.7±20%	14.0	15.0	11.0	4R7	
MCSM105Z5R6MH	5.6±20%	17.0	14.0	9.5	5R6	
MCSM105Z6R8MH	6.8±20%	18.5	14.0	9.0	6R8	
MCSM105Z100MH	10.0±20%	28.0	10.0	8.0	100	
MCSM105Z150MH	15.0±20%	42.0	7.5	6.5	150	
MCSM105Z220MH	22.0±20%	50.0	6.0	5.5	220	
MCSM105Z330MH	33.0±20%	86.0	5.2	4.8	330	
MCSM105Z470MH	47.0±20%	127.0	4.5	3.7	470	
MCSM105Z101MH	100±20%	290.0	2.8	2.1	101	

Note:

1.Inductance is measured at 100 KHz and 1.0 Vrms.

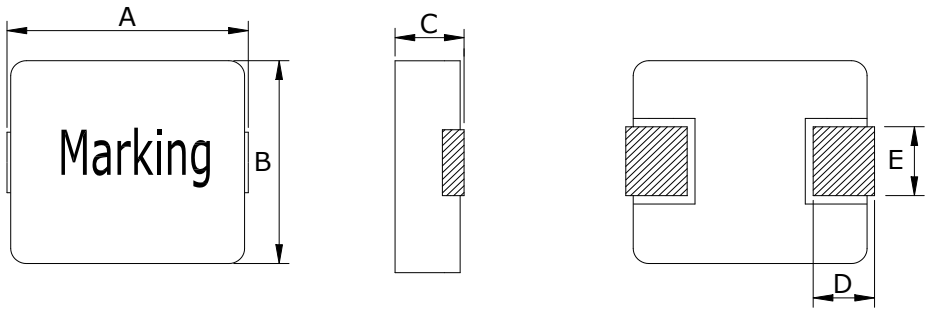
2.The nominal DCR is measured at 25℃ ambient temperature.

3.The I-sat that will cause initial inductance value approximately 30% rolloff at 25℃.

4.The I-rms that will cause temperature rise approximate 40°C without core loss.

Mechanical & Dimensions

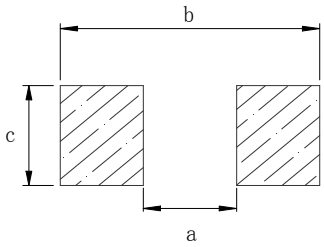
(Unit: mm)



Code	Dimensions
A	14.2 MAX
B	13.3 MAX
C	4.0 MAX
D	2.0±0.5
E	See Note 5.

Recommend Land Pattern Dimensions

(Unit: mm)



Code	Dimensions
a	8.0 Typ
b	14.5 Typ
c	5.5 Typ

Electrical Characteristics

Part Number	Inductance[1] (μH)	DCR[2] (mΩ) Max	I-sat[3] (Amps)Typ	I-rms[4] (Amps)Typ	Marking	
MCSM124ZR22MH	0.22±20%	0.9	50.0	42.0	R22	
MCSM124ZR47MH	0.47±20%	2.0	48.0	33.0	R47	
MCSM124ZR68MH	0.68±20%	3.5	47.0	28.0	R68	
MCSM124ZR82MH	0.82±20%	4.5	40.0	28.0	R82	
MCSM124Z1R0MH	1.0±20%	7.5	35.0	24.0	1R0	
MCSM124Z1R5MH	1.5±20%	9.5	30.5	20.0	1R5	
MCSM124Z2R2MH	2.2±20%	11.5	26.0	18.0	2R2	
MCSM124Z3R3MH	3.3±20%	13.0	21.0	15.0	3R3	
MCSM124Z4R7MH	4.7±20%	14.5	18.0	13.0	4R7	
MCSM124Z6R8MH	6.8±20%	20.0	14.0	9.0	6R8	
MCSM124Z100MH	10.0±20%	25.0	10.0	8.0	100	
MCSM124Z150MH	15.0±20%	39.0	7.5	6.5	150	
MCSM124Z220MH	22.0±20%	51.0	6.0	4.5	220	

Note:

1.Inductance is measured at 100 KHz and 1.0 Vrms.

2.The nominal DCR is measured at 25℃ ambient temperature.

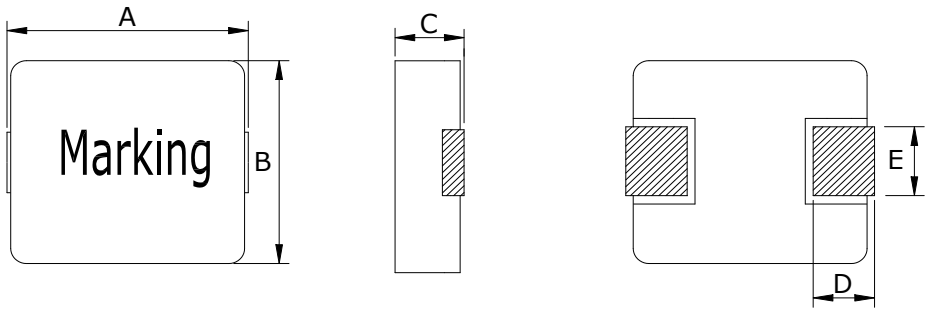
3.The I-sat that will cause initial inductance value approximately 30% rolloff at 25℃.

4.The I-rms that will cause temperature rise approximate 40°C without core loss.

5. In the range of (R22/R47), the size of E(mm):3.85±0.5 ;In the range of (R68~220),the size of E(mm):5.0±0.3 .

Mechanical & Dimensions

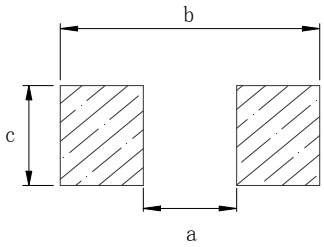
(Unit: mm)



Code	Dimensions
A	14.2 MAX
B	13.3 MAX
C	5.0 MAX
D	2.5±0.5
E	See Note 5.

Recommend Land Pattern Dimensions

(Unit: mm)



Code	Dimensions
a	8.0 Typ
b	14.5 Typ
c	5.5 Typ

Electrical Characteristics

Part Number	Inductance[1] (μH)	DCR[2] (mΩ) Max	I-sat[3] (Amps)Typ	I-rms[4] (Amps)Typ	Marking	
MCSM125ZR22MH	0.22±20%	0.7	75.0	50.0	R22	
MCSM125ZR36MH	0.36±20%	0.85	50.0	42.0	R36	
MCSM125ZR50MH	0.5±20%	1.15	48.0	38.0	R50	
MCSM125ZR68MH	0.68±20%	1.55	46.0	33.0	R68	
MCSM125ZR82MH	0.82±20%	1.67	39.0	30.0	R82	
MCSM125Z1R0MH	1.0±20%	2.2	35.0	26.0	1R0	
MCSM125Z1R5MH	1.5±20%	3.2	33.0	23.0	1R5	
MCSM125Z2R2MH	2.2±20%	5.0	24.0	15.0	2R2	
MCSM125Z3R3MH	3.3±20%	7.0	22.0	14.0	3R3	
MCSM125Z4R7MH	4.7±20%	9.0	20.0	13.0	4R7	
MCSM125Z6R8MH	6.8±20%	18.0	16.0	12.0	6R8	
MCSM125Z8R2MH	8.2±20%	20.0	13.0	9.5	8R2	
MCSM125Z100MH	10.0±20%	22.0	12.0	9.0	100	
MCSM125Z150MH	15.0±20%	30.0	10.0	8.0	150	
MCSM125Z220MH	22.0±20%	58.0	6.5	4.5	220	
MCSM125Z330MH	33.0±20%	84.0	6.0	3.5	330	
MCSM125Z470MH	47.0±20%	130.0	5.0	3.0	470	

Note:

1.Inductance is measured at 100 KHz and 1.0 Vrms.

2.The nominal DCR is measured at 25℃ ambient temperature.

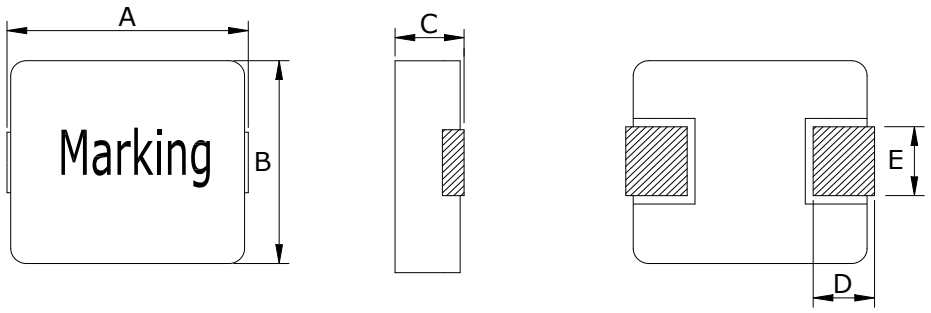
3.The I-sat that will cause initial inductance value approximately 30% rolloff at 25℃.

4.The I-rms that will cause temperature rise approximate 40°C without core loss.

5. In the range of (R22~2R2), the size of E(mm):3.85±0.5 ;In the range of (3R3~470),the size of E(mm):5.0±0.3 .

Mechanical & Dimensions

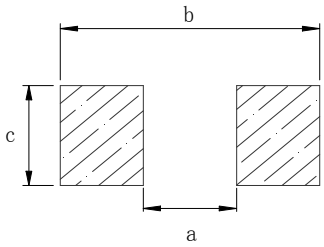
(Unit: mm)



Code	Dimensions
A	14.2 MAX
B	13.3 MAX
C	6.0 MAX
D	2.5±0.5
E	5.0±0.3

Recommend Land Pattern Dimensions

(Unit: mm)



Code	Dimensions
a	8.0 Typ
b	14.5 Typ
c	5.5 Typ

Electrical Characteristics

Part Number	Inductance[1] (μH)	DCR[2] (mΩ) Max	I-sat[3] (Amps)Typ	I-rms[4] (Amps)Typ	Marking	
MCSM126Z4R7MH	4.7±20%	9.0	24.0	15.0	4R7	
MCSM126Z5R6MH	5.6±20%	11.0	22.5	13.0	5R6	
MCSM126Z6R8MH	6.8±20%	13.5	19.0	12.0	6R8	
MCSM126Z8R2MH	8.2±20%	16.0	13.5	11.0	8R2	
MCSM126Z100MH	10.0±20%	20.7	12.5	10.0	100	
MCSM126Z120MH	12.0±20%	23.0	10.0	9.0	120	
MCSM126Z150MH	15.0±20%	29.0	9.0	8.5	150	
MCSM126Z180MH	18.0±20%	35.0	8.0	7.5	180	
MCSM126Z220MH	22.0±20%	39.5	7.5	7.0	220	
MCSM126Z270MH	27.0±20%	56.0	6.5	6.0	270	
MCSM126Z330MH	33.0±20%	75.0	6.0	5.5	330	
MCSM126Z470MH	47.0±20%	90.0	5.5	5.0	470	
MCSM126Z680MH	68.0±20%	140.0	4.5	4.0	680	
MCSM126Z101MH	100±20%	200.0	3.5	3.0	101	
MCSM126Z121MH	120±20%	235.0	3.2	2.0	121	
MCSM126Z151MH	150±20%	350.0	2.7	1.5	151	

Note:

1.Inductance is measured at 100 KHz and 1.0 Vrms.

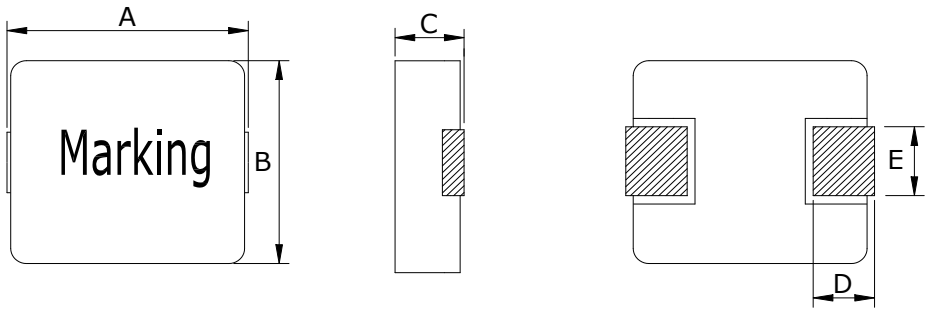
2.The nominal DCR is measured at 25℃ ambient temperature.

3.The I-sat that will cause initial inductance value approximately 30% rolloff at 25℃.

4.The I-rms that will cause temperature rise approximate 40°C without core loss.

Mechanical & Dimensions

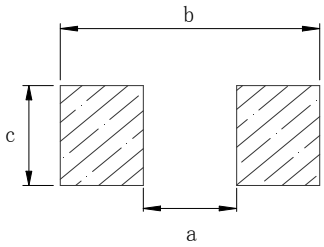
(Unit: mm)



Code	Dimensions
A	14.2 MAX
B	13.3 MAX
C	6.5 MAX
D	2.5±0.5
E	5.0±0.3

Recommend Land Pattern Dimensions

(Unit: mm)



Code	Dimensions
a	8.0 Typ
b	14.5 Typ
c	5.5 Typ

Electrical Characteristics

Part Number	Inductance[1] (μH)	DCR[2] (mΩ) Max	I-sat[3] (Amps)Typ	I-rms[4] (Amps)Typ	Marking	
MCSM1265Z4R7MH	4.7±20%	8.5	24.00	16.0	4R7	
MCSM1265Z5R6MH	5.6±20%	10.5	22.50	14.0	5R6	
MCSM1265Z6R8MH	6.8±20%	12.0	19.00	13.0	6R8	
MCSM1265Z8R2MH	8.2±20%	14.0	16.00	12.0	8R2	
MCSM1265Z100MH	10.0±20%	16.5	15.00	11.0	100	
MCSM1265Z150MH	15.0±20%	26.0	11.00	9.5	150	
MCSM1265Z220MH	22.0±20%	36.0	9.00	8.0	220	
MCSM1265Z330MH	33.0±20%	65.0	8.00	6.5	330	
MCSM1265Z470MH	47.0±20%	70.0	6.80	5.5	470	
MCSM1265Z680MH	68.0±20%	120.0	5.20	4.8	680	
MCSM1265Z820MH	82.0±20%	135.0	4.50	4.0	820	
MCSM1265Z101MH	100±20%	170.0	4.00	3.5	101	

Note:

1.Inductance is measured at 100 KHz and 1.0 Vrms.

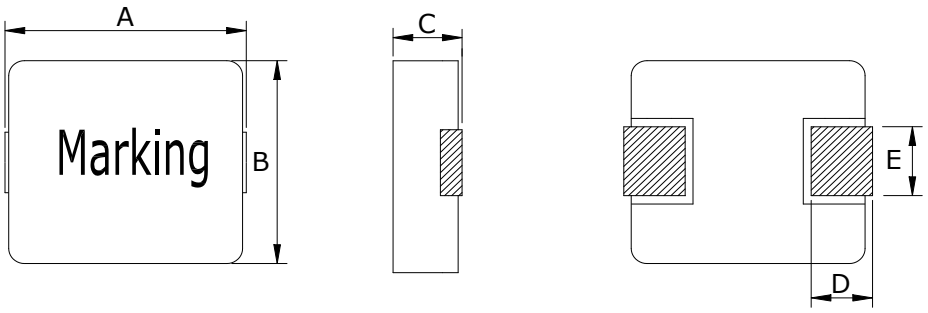
2.The nominal DCR is measured at 25℃ ambient temperature.

3.The I-sat that will cause initial inductance value approximately 30% rolloff at 25℃.

4.The I-rms that will cause temperature rise approximate 40°C without core loss.

Mechanical & Dimensions

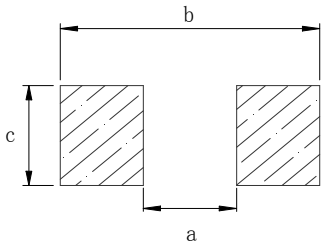
(Unit: mm)



Code	Dimensions
A	18.5 MAX
B	17.15MAX
C	7.0 MAX
D	2.5±0.5
E	12.0±0.3

Recommend Land Pattern Dimensions

(Unit: mm)



Code	Dimensions
a	11.2 Typ
b	18.2 Typ
c	12.8 Typ

Electrical Characteristics

Part Number	Inductance[1] (μH)	DCR[2] (mΩ) Max	I-sat[3] (Amps)Typ	I-rms[4] (Amps)Typ	Marking	
MCSM177Z2R2MH	2.2±20%	2.5	34.0	29.0	2R2	
MCSM177Z3R3MH	3.3±20%	3.95	30.0	24.0	3R3	
MCSM177Z4R7MH	4.7±20%	4.75	24.0	21.0	4R7	
MCSM177Z6R8MH	6.8±20%	7.5	22.0	17.0	6R8	
MCSM177Z8R2MH	8.2±20%	8.7	20.0	13.0	8R2	
MCSM177Z100MH	10.0±20%	9.9	19.0	12.0	100	
MCSM177Z150MH	15.0±20%	17.0	14.5	11.0	150	
MCSM177Z220MH	22.0±20%	23.0	11.5	8.5	220	
MCSM177Z330MH	33.0±20%	37.0	10.0	8.0	330	
MCSM177Z470MH	47.0±20%	47.0	7.5	6.0	470	
MCSM177Z680MH	68.0±20%	85.0	6.5	5.2	680	
MCSM177Z101MH	100±20%	130.0	5.0	3.7	101	

Note:

1.Inductance is measured at 100 KHz and 1.0 Vrms.

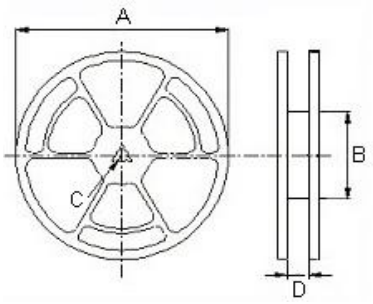
2.The nominal DCR is measured at 25℃ ambient temperature.

3.The I-sat that will cause initial inductance value approximately 30% rolloff at 25℃.

4.The I-rms that will cause temperature rise approximate 40°C without core loss.

Packaging

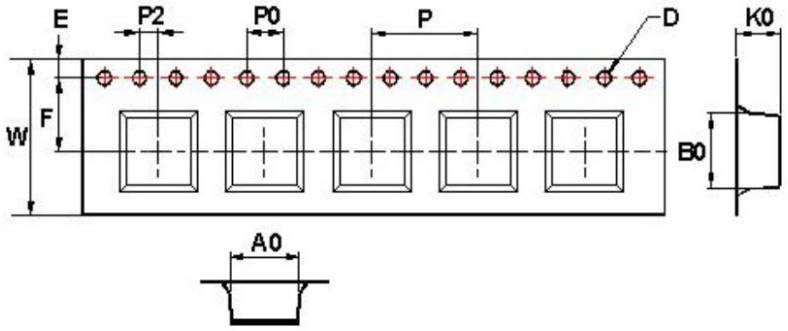
Reel Dimension:



P/N	Type	A(mm)	B(mm)	C(mm)	D(mm)	Chip/Reel
MCSM41-H Typ	13" x 12mm	330+2.0	97±0.5	13.0±0.2	12.8±0.2	3,000
MCSM412-H Typ	13" x 12mm	300+2.0	97±0.5	13.0±0.2	12.8±0.2	3,000
MCSM42-H Typ	13" x 12mm	300+2.0	97±0.5	13.0±0.2	12.8±0.2	3,000
MCSM518-H Typ	13" x 12mm	330+2.0	100.0	13.0±0.2	12.8±0.2	2,000
MCSM53-H Typ	13" x 12mm	330+2.0	100.0	13.0±0.2	12.8±0.2	2,000
MCSM61-H Typ	13" x 16mm	330+2.0	97±0.5	13.2±0.2	16.8±0.2	3,000
MCSM615-H Typ	13" x 16mm	330+2.0	97±0.5	13.2±0.2	16.8±0.2	2,000
MCSM618-H Typ	13" x 16mm	330+2.0	97±0.5	13.2±0.2	16.8±0.2	2,000
MCSM624-H Typ	13" x 16mm	330+2.0	97±0.5	13.2±0.2	16.8±0.2	1,500
MCSM63-H Typ	13" x 16mm	330+2.0	100±2.0	13.0±0.2	16.8±0.5	1,500
MCSM64-H Typ	13" x 16mm	330+2.0	100±2.0	13.2±0.2	16.8±0.2	1,000
MCSM65-H Typ	13" x 16mm	330+2.0	97±0.5	13.2±0.2	16.8±0.2	1,000
MCSM85-H Typ	13" x 24mm	330+2.0	100±2.0	13.0±0.2	24.0±0.5	1,000
MCSM103-H Typ	13" x 24mm	330+2.0	100±2.0	13.0±0.2	24.0±0.5	800
MCSM104-H Typ	13" x 24mm	330+2.0	100±2.0	13.0±0.2	24.0±0.5	500
MCSM105-H Typ	13" x 24mm	330+2.0	100±2.0	13.0±0.2	24.0±0.5	500
MCSM124-H Typ	13" x 24mm	330+2.0	100±2.0	13.0±0.2	24.0±0.5	500
MCSM125-H Typ	13" x 24mm	330+2.0	100±2.0	13.0±0.2	24.0±0.5	500
MCSM126-H Typ	13" x 24mm	330+2.0	100±2.0	13.0±0.2	24.0±0.5	500
MCSM1265-H Typ	13" x 24mm	330+2.0	100±2.0	13.0±0.2	24.0±0.5	500
MCSM177-H Typ	13" x 32mm	330+2.0	97±0.5	13.0±0.2	32.0±0.5	200

Packaging

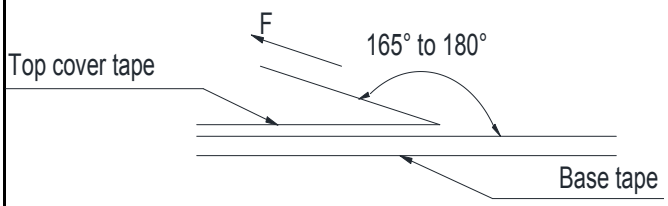
Tape Dimension:



P/N	Ao(mm)	Bo(mm)	Ko(mm)	E(mm)	F(mm)	D(mm)	P2(mm)	P(mm)	W(mm)	P0(mm)
MCSM41-H Typ	4.5±0.1	4.5±0.1	1.1±0.1	1.75±0.1	5.5±0.1	1.5±0.1	2.0±0.1	8.0±0.1	12.0±0.3	4.0±0.1
MCSM412-H Typ	4.4±0.1	4.9±0.1	1.5±0.1	1.75±0.1	5.5±0.1	1.5±0.1	2.0±0.1	8.0±0.1	12.0±0.3	4.0±0.1
MCSM42-H Typ	4.4±0.1	4.9±0.1	2.3±0.1	1.75±0.1	5.5±0.1	1.5±0.1	2.0±0.1	8.0±0.1	12.0±0.3	4.0±0.1
MCSM518-H Typ	5.5±0.1	5.9±0.1	2.0±0.1	1.75±0.1	5.5±0.1	1.5±0.1	2.0±0.1	8.0±0.1	12.0±0.3	4.0±0.1
MCSM53-H Typ	5.5±0.1	5.9±0.1	3.3±0.1	1.75±0.1	5.5±0.1	1.5±0.1	2.0±0.1	8.0±0.1	12.0±0.3	4.0±0.1
MCSM61-H Typ	6.4±0.1	6.5±0.1	1.1±0.1	1.75±0.1	7.5±0.1	1.5±0.1	2.0±0.1	12.0±0.1	16.0±0.3	4.0±0.1
MCSM615-H Typ	6.9±0.1	7.5±0.1	1.7±0.1	1.75±0.1	7.5±0.1	1.5±0.1	2.0±0.1	12.0±0.1	16.0±0.3	4.0±0.1
MCSM618-H Typ	6.9±0.1	7.5±0.1	2.1±0.1	1.75±0.1	7.5±0.1	1.5±0.1	2.0±0.1	12.0±0.1	16.0±0.3	4.0±0.1
MCSM624-H Typ	6.9±0.1	7.5±0.1	2.7±0.1	1.75±0.1	7.5±0.1	1.5±0.1	2.0±0.1	12.0±0.1	16.0±0.3	4.0±0.1
MCSM63-H Typ	6.9±0.1	7.6±0.1	3.2±0.1	1.75±0.1	7.5±0.1	1.5±0.1	2.0±0.1	12.0±0.1	16.0±0.3	4.0±0.1
MCSM64-H Typ	6.9±0.1	7.6±0.1	4.3±0.1	1.75±0.1	7.5±0.1	1.5±0.1	2.0±0.1	12.0±0.1	16.0±0.3	4.0±0.1
MCSM65-H Typ	6.9±0.1	7.6±0.1	5.4±0.1	1.75±0.1	7.5±0.1	1.5±0.1	2.0±0.1	12.0±0.1	16.0±0.3	4.0±0.1
MCSM85-H Typ	8.5±0.1	9.5±0.1	5.2±0.1	1.75±0.1	11.5±0.1	1.5±0.1	2.0±0.1	12.0±0.1	24.0±0.3	4.0±0.1
MCSM103-H Typ	10.4±0.1	11.5±0.1	3.3±0.1	1.75±0.1	11.5±0.1	1.5±0.1	2.0±0.1	16.0±0.1	24.0±0.3	4.0±0.1
MCSM104-H Typ	10.4±0.1	11.6±0.1	4.3±0.1	1.75±0.1	11.5±0.1	1.5±0.1	2.0±0.1	16.0±0.1	24.0±0.3	4.0±0.1
MCSM105-H Typ	10.4±0.1	11.6±0.1	5.4±0.1	1.75±0.1	11.5±0.1	1.5±0.1	2.0±0.1	16.0±0.1	24.0±0.3	4.0±0.1
MCSM124-H Typ	13.1±0.1	14.0±0.1	4.3±0.1	1.75±0.1	11.5±0.1	1.5±0.1	2.0±0.1	16.0±0.1	24.0±0.3	4.0±0.1
MCSM125-H Typ	13.1±0.1	14.0±0.1	5.4±0.1	1.75±0.1	11.5±0.1	1.5±0.1	2.0±0.1	16.0±0.1	24.0±0.3	4.0±0.1
MCSM126-H Typ	13.1±0.1	14.0±0.1	6.3±0.1	1.75±0.1	11.5±0.1	1.5±0.1	2.0±0.1	16.0±0.1	24.0±0.3	4.0±0.1
MCSM1265-H Typ	13.1±0.1	14.0±0.1	6.8±0.1	1.75±0.1	11.5±0.1	1.5±0.1	2.0±0.1	16.0±0.1	24.0±0.3	4.0±0.1
MCSM177-H Typ	17.5±0.1	18.1±0.1	7.3±0.1	1.75±0.1	14.2±0.1	1.5±0.1	2.0±0.1	24.0±0.1	32.0±0.3	4.0±0.1

Packaging

Tearing Off Force:



The force tearing off cobe tape is 10 to 130 g.f in the arrow direction under the following conditions			
Room Temp (℃)	Room Humidity (%)	Room atrn (hPa)	Teaming Speed (mm/min)
5~35	45~85	860~1060	300

※Storage Conditions

1. Recommended products should be used within 6 months form the time of delivery.
2. The packaging material should be kept where no chlorine or sulfur exists in the air.

※Transportation

1. Products should be handled with care to avoid damage or contamination from perspiration and skin oils.
2. The use of tweezers or vacuum pick up is strongly recommended for individual components.
3. Bulk handling should ensure that abrasion and mechanical shock are minimized.

Recommended Soldering Conditions

Figure 1. Re-flow Soldering

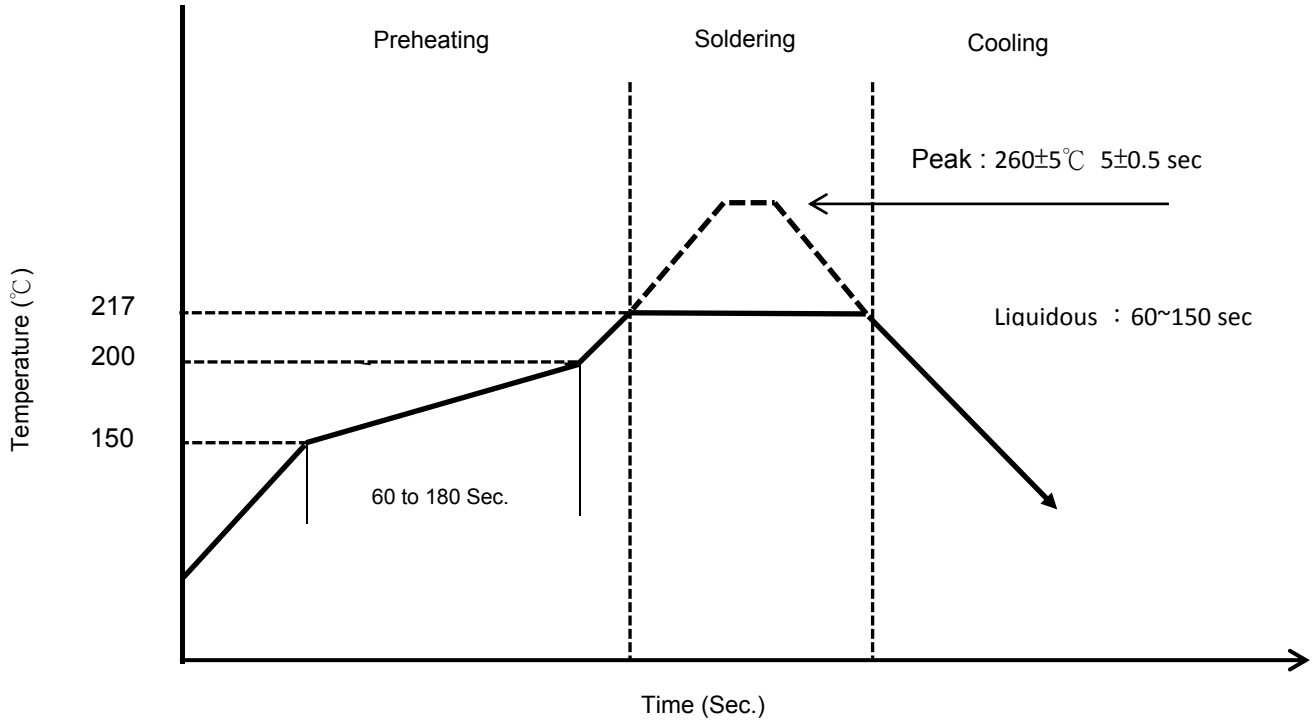
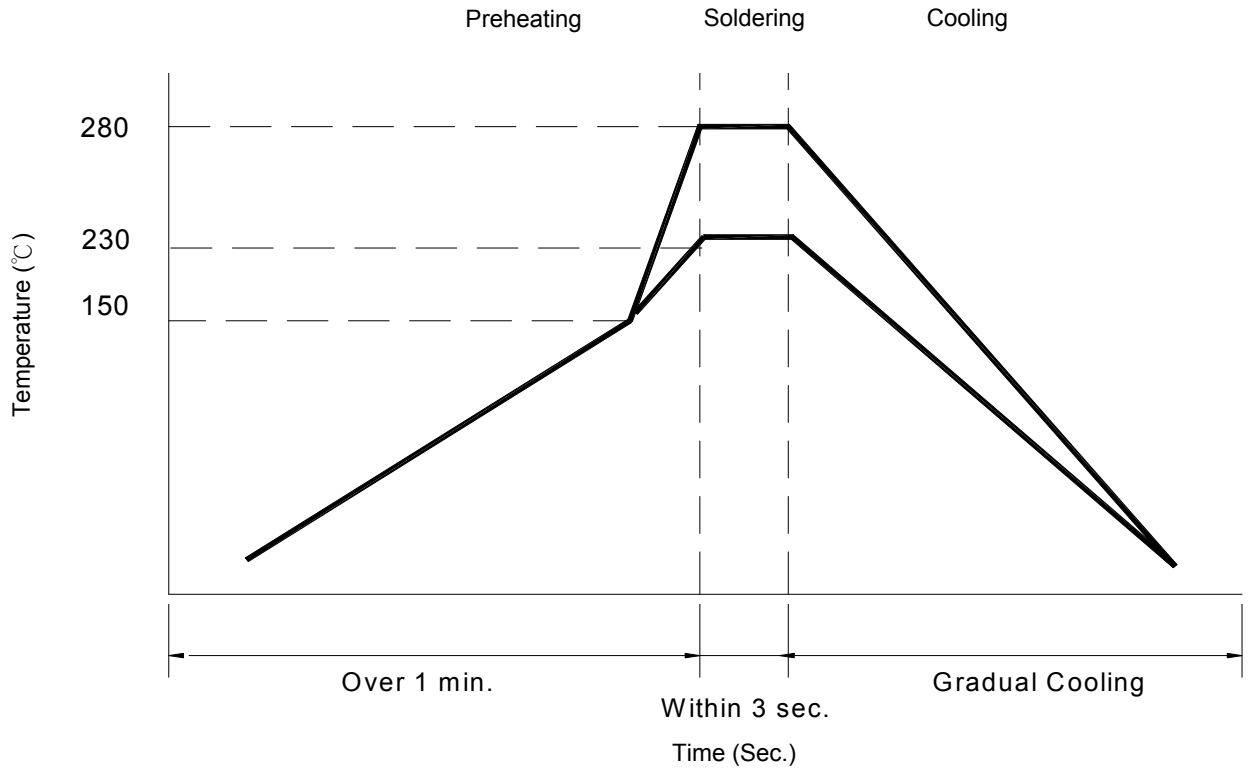
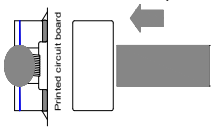


Figure 2. Hand Soldering



Reliability and Testing Conditions

Item	Specification	Conditions
Operating temperature range	-40℃ ~ +125℃ (Including self-temperature rise)	
Storage temperature and humidity range	-40°C ~ +85°C , 70% RH Max	
Solderability	More than 90% of the terminal electrode should be covered with solder.	- Preheat: 150 ℃, 60 sec - Solder: Sn96.5%-Ag3%-Cu0.5% - Temperature: 245±5℃ - Flux for lead free: Rosin 9.5% - Dip time: 4±1 sec - Depth: completely cover the termination
Resistance to Soldering Heat	Inductance within ±20% of initial value. No disconnection or short circuit. The appearance shall not break.	- Solder technique simulation: SMD - Temperature (°C): 260 ± 5 (solder temp) - Time (s): 10 ± 1 - Temperature ramp / immersion and emersion rate: 25 mm/s ± 6 mm/s - Number of heat cycles: 1
Resistance to High Temperature	Inductance within ±20% of initial value. No disconnection or short circuit. The appearance shall not break.	500 hrs. at 125°C±3°C Unpowered. Measurement at 24±4 hours after test conclusion.
Resistance to Low Temperature	Inductance within ±20% of initial value. No disconnection or short circuit. The appearance shall not break.	500 hrs. at -40°C±2°C. Unpowered. Measurement at 24±4 hours after test conclusion.
Resistance to Humidity	Inductance within ±20% of initial value. No disconnection or short circuit. The appearance shall not break.	After 500 hours in 40±2°C and 90 to 95% humidity , and 24 hour drying under normal condition.
Thermal shock	Inductance within ±20% of initial value. No disconnection or short circuit. The appearance shall not break.	After 100 cycles of following condition. Step / Temperature (℃) / Times (min.) 1 / -40±2°C / 30 2 / Room Temperature / Within 3 3 / 125±3°C / 30 4 / Room Temperature / Within 3
Vibration Test	Inductance within ±10% of initial value and appearance shall not break.	After vibration for 1hour, In each of three orientations at sweep vibration (10~55~10Hz) with 1.52mm P-P Amplitudes.
Terminal strength	The terminal electrode and the ferrite must not be damaged	Solder a chip to test substrate, and then laterally apply a load 10N in the arrow direction, Duration :5s 
Drop Test	Inductance within ±10% of initial value. The appearance shall not break.	Drop 3 times on a concrete floor from a height of 75cm by inimum packing