

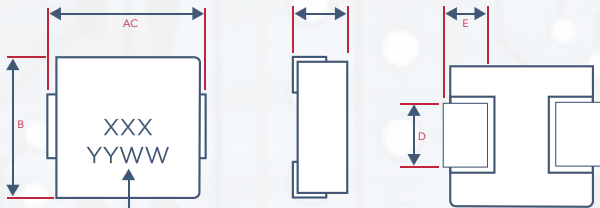
# SMD MOLDING TYPE POWER INDUCTOR

## - MTPC SERIES -

### APPLICATION

- Tablet terminals, HDDs, SSDs, DVCs, DSCs, mobile display panels, portable game devices, Telecommunications, Consumer electronics, Compact power supply modules, other

### SHAPES AND DIMENSIONS



**BLACK MARKING**  
 YYWW: The first two digits mean year, last two digits mean cycle.  
 Depends on real produce cycle.

UNIT: MM					
TYPE	A	B	C	D	E
MTPC0603HG	7.3 ± 0.3	6.6 ± 0.3	2.8 ± 0.2	3.0 ± 0.3	1.8 Ref.

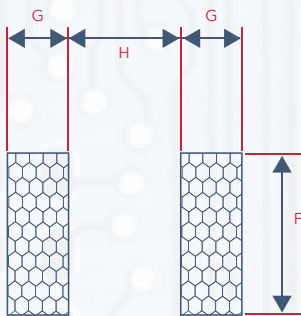
### PART NUMBERING



### RECOMMENDED SOLDERING CONDITION

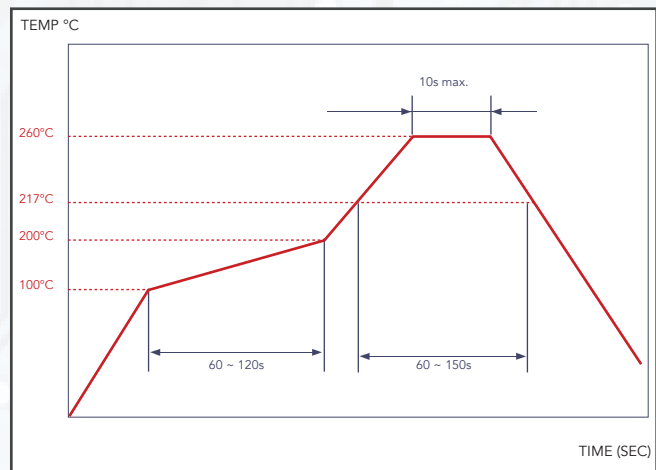
- Recommended Land Pattern

- Recommended Soldering Profile



SYMBOL	DIMENSION
F	3.50
G	2.95
H	2.50

- The Recommended Land pattern is for reference only  
 - Please consult your manufacturing partners to ensure your company's PCB design guidelines are met



## ELECTRICAL SPECIFICATIONS

PART NUMBER	INDUCTANCE (L) @100kHz, 1V	DC RESISTANCE ( $R_{DC}$ ) MAX.	SATURATION CURRENT ( $I_{SAT}$ ) TYP.	TEMPERATURE RISE CURRENT ( $I_{RMS}$ ) TYP.	MARKING
MTPC0603HG-R10N-TA	0.10 $\mu$ H $\pm$ 30%	1.7m $\Omega$	60.00A	32.50A	R10
MTPC0603HG-R13N-TA	0.13 $\mu$ H $\pm$ 30%	1.8m $\Omega$	50.00A	27.60A	R13
MTPC0603HG-R15N-TA	0.15 $\mu$ H $\pm$ 30%	1.9m $\Omega$	45.00A	27.00A	R15
MTPC0603HG-R16N-TA	0.16 $\mu$ H $\pm$ 30%	1.9m $\Omega$	45.00A	27.00A	R16
MTPC0603HG-R18N-TA	0.18 $\mu$ H $\pm$ 30%	2.3m $\Omega$	43.00A	25.00A	R18
MTPC0603HG-R19N-TA	0.19 $\mu$ H $\pm$ 30%	2.5m $\Omega$	41.00A	24.00A	R19
MTPC0603HG-R20N-TA	0.20 $\mu$ H $\pm$ 30%	2.5m $\Omega$	41.00A	24.00A	R20
MTPC0603HG-R22N-TA	0.22 $\mu$ H $\pm$ 30%	2.8m $\Omega$	40.00A	23.00A	R22
MTPC0603HG-R25M-TA	0.25 $\mu$ H $\pm$ 20%	3.5m $\Omega$	39.00A	21.00A	R25
MTPC0603HG-R30M-TA	0.30 $\mu$ H $\pm$ 20%	3.8m $\Omega$	35.00A	21.00A	R30
MTPC0603HG-R33M-TA	0.33 $\mu$ H $\pm$ 20%	3.9m $\Omega$	32.00A	20.00A	R33
MTPC0603HG-R36M-TA	0.36 $\mu$ H $\pm$ 20%	4.2m $\Omega$	32.00A	19.00A	R36
MTPC0603HG-R40M-TA	0.40 $\mu$ H $\pm$ 20%	4.1m $\Omega$	27.00A	18.00A	R40
MTPC0603HG-R47M-TA	0.47 $\mu$ H $\pm$ 20%	4.2m $\Omega$	26.00A	17.50A	R47
MTPC0603HG-R56M-TA	0.56 $\mu$ H $\pm$ 20%	5.0m $\Omega$	25.50A	16.50A	R56
MTPC0603HG-R60M-TA	0.60 $\mu$ H $\pm$ 20%	5.2m $\Omega$	25.00A	16.00A	R60
MTPC0603HG-R68M-TA	0.68 $\mu$ H $\pm$ 20%	5.5m $\Omega$	25.00A	15.50A	R68
MTPC0603HG-R75M-TA	0.75 $\mu$ H $\pm$ 20%	6.6m $\Omega$	24.50A	14.50A	R75
MTPC0603HG-R82M-TA	0.82 $\mu$ H $\pm$ 20%	8.0m $\Omega$	24.00A	13.00A	R82
MTPC0603HG-R90M-TA	0.90 $\mu$ H $\pm$ 20%	10.0m $\Omega$	22.00A	11.00A	R90
MTPC0603HG-1R0M-TA	1.00 $\mu$ H $\pm$ 20%	10.0m $\Omega$	22.00A	11.00A	1R0
MTPC0603HG-1R2M-TA	1.20 $\mu$ H $\pm$ 20%	12.0m $\Omega$	20.00A	10.00A	1R2
MTPC0603HG-1R5M-TA	1.50 $\mu$ H $\pm$ 20%	15.0m $\Omega$	18.00A	9.00A	1R5
MTPC0603HG-1R8M-TA	1.80 $\mu$ H $\pm$ 20%	17.0m $\Omega$	16.00A	8.50A	1R8
MTPC0603HG-2R0M-TA	2.00 $\mu$ H $\pm$ 20%	19.0m $\Omega$	15.00A	8.20A	2R0
MTPC0603HG-2R2M-TA	2.20 $\mu$ H $\pm$ 20%	20.0m $\Omega$	14.00A	8.00A	2R2
MTPC0603HG-2R5M-TA	2.50 $\mu$ H $\pm$ 20%	22.0m $\Omega$	13.00A	7.00A	2R5
MTPC0603HG-2R7M-TA	2.70 $\mu$ H $\pm$ 20%	27.0m $\Omega$	13.00A	7.00A	2R7
MTPC0603HG-3R3M-TA	3.30 $\mu$ H $\pm$ 20%	30.0m $\Omega$	13.50A	6.00A	3R3
MTPC0603HG-4R7M-TA	4.70 $\mu$ H $\pm$ 20%	40.0m $\Omega$	10.00A	5.50A	4R7
MTPC0603HG-5R6M-TA	5.60 $\mu$ H $\pm$ 20%	48.0m $\Omega$	9.00A	5.00A	5R6
MTPC0603HG-6R8M-TA	6.80 $\mu$ H $\pm$ 20%	60.0m $\Omega$	8.00A	4.50A	6R8
MTPC0603HG-8R2M-TA	8.20 $\mu$ H $\pm$ 20%	68.0m $\Omega$	7.50A	4.00A	8R2
MTPC0603HG-100M-TA	10.00 $\mu$ H $\pm$ 20%	85.0m $\Omega$	6.00A	3.50A	100
MTPC0603HG-120M-TA	12.00 $\mu$ H $\pm$ 20%	93.0m $\Omega$	5.50A	3.30A	120
MTPC0603HG-150M-TA	15.00 $\mu$ H $\pm$ 20%	123.0m $\Omega$	4.00A	3.00A	150
MTPC0603HG-180M-TA	18.00 $\mu$ H $\pm$ 20%	160.0m $\Omega$	4.00A	2.50A	180
MTPC0603HG-220M-TA	22.00 $\mu$ H $\pm$ 20%	190.0m $\Omega$	3.50A	2.00A	220
MTPC0603HG-330M-TA	33.00 $\mu$ H $\pm$ 20%	240.0m $\Omega$	2.50A	2.00A	330
MTPC0603HG-470M-TA	47.00 $\mu$ H $\pm$ 20%	363.0m $\Omega$	2.00A	1.75A	470

Note1. The saturation current is DC current value Inductance decrease down to 30%. (Test by a short period of time to minimize the self-heating effect of the component.)

Note 2. The temperature rise current value is the DC current value having temperature increase up to 40°C.

- OPERATING TEMPERATURE RANGE  
-55°C to +125°C (Including self - temperature rise)

## PACKING INFORMATION

- STORAGE TEMPERATURE RANGE  
Store this product under the condition of 5°C to 40°C, 20% to 70%RH and use within 6 months

- Standard Quantity for Packaging: 1,000 pcs/Reel



NOTE

1. Please make sure that your product is has been evaluated and confirmed against your specifications when our product is mounted to your product.
2. Do not knock nor drop.
3. All the items and parameters in this product specification have been prescribed on the premise that our product is used for the purpose, under the condition and in the environment a greed upon between you and us. You are requested not to use our product deviating from such agreement.
4. Please keep the distance between transformer/coil and other components (refer to the standard IEC 950)

**Cal-Chip**  
Electronics Inc.