

- 1: Rated current: Isat(max.) or Irms(max.), whichever is smaller
- 2: Saturation Current: Max. Value, DC current at which the inductance drops less than 30% from its value without current; Typ. Value, DC current at which the inductance drops 30% from its value without current;
- 3: Irms: DC current that causes the temperature rise ΔT from 20°C ambient
For Max. Value, $\Delta T < 40^\circ\text{C}$ for Typ. Value, ΔT is approximate 40°C.

The part temperature (ambient + temp. rise) should not exceed 125°C under worst case operating conditions. Circuit design, component placement, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.

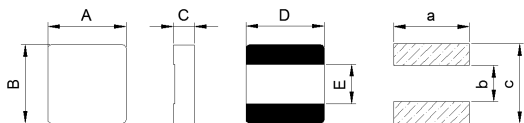
4. Absolute maximum voltage: DC20V
5. Operating temperature range: $-40^\circ\text{C} \sim +125^\circ\text{C}$ (Including self-heating).
6. Storage temperature range: $-10^\circ\text{C} \sim +40^\circ\text{C}$ and RH 70% (Max.).



Electrical Specifications @ 25°C

Part Number	Inductance	DC Resistance		Saturation Current		Heat Rating Current	
	1MHz/1V	Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	uH	Ω	Ω	A	A	A	A
Symbol	L	DCR		Isat		Irms	
MHT4012SG-1R0M H	$1.0 \pm 20\%$	0.032	0.025	6.20	7.00	4.30	5.00
MHT4012SG-2R2M H	$2.2 \pm 20\%$	0.058	0.048	4.30	4.80	3.20	3.60
MHT4012SG-3R3M H	$3.3 \pm 20\%$	0.067	0.056	4.10	4.50	2.80	3.20
MHT4012SG-4R7M H	$4.7 \pm 20\%$	0.100	0.086	3.00	3.50	2.40	2.70
MHT4012SG-6R8M H	$6.8 \pm 20\%$	0.150	0.120	3.00	3.50	1.90	2.20
MHT4012SG-100M H	$10.0 \pm 20\%$	0.230	0.200	2.50	2.80	1.80	2.00

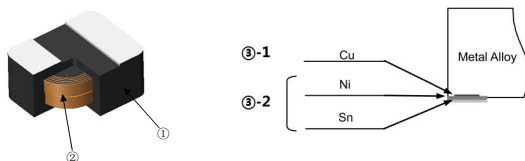
MECHANICAL



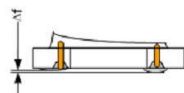
A	B	C	D	E	a	b	c
4.0 ± 0.2	4.0 ± 0.2	1.2Max	4.0 ± 0.3	1.6 ± 0.3	4.2Ref	1.4 Ref	4.2 Ref

Dimensions (mm)

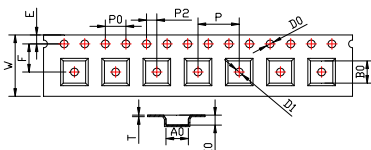
STRUCTURE



NO.	Components	Material
①	Core	Soft magnetic Metal
②	Wire	Polyurethane system enameled copper wire
③-1	Electrodes	Inside Cu
③-2		Ni+Sn Plating Chemicals



TAPING AND PACKING

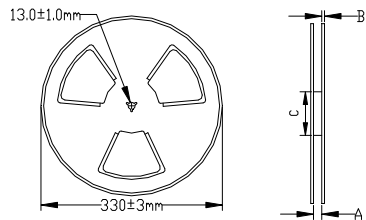


ITEM	W	A0	B0	K0	P	F	E	D0	D1	P0	P2
DIM	12.00	4.3	4.3	1.4	8.00	5.50	1.75	1.50	1.50	4.00	2.00
TOL	$+0.30$ -0.10	± 0.1	± 0.1	± 0.1	± 0.1	± 0.1	± 0.1	± 0.1	± 0.1	± 0.1	± 0.1

Quantity (pcs):

3000 PCS PER REEL
4 REELS PER CARTON
12000 PCS PER CARTON

Carrier Tape Reel



Type	A	B	C
12mm	12.5 ± 1	2.2 ± 1	100 ± 1

Dimensions in mm