

A FEATURES

- Molded Metal Construction with ultra low DCR
- Magnetically shielded
- Low profile ready
- High current capability
- No acoustic noise and no leakage field
- Operating Temperature range from -40°C to +125°C (Including Self-heating)



B PART NUMBER SYSTEM

1MT 201610 3S - 42R2 5M 6F

1	Series	2	Dimension Code (L*W*H) (mm)		
1MT	Series Code		201610 (2.0×1.6×1.0)	252010 (2.5×2.0×1.0)	252012 (2.5×2.0×1.2)
3	Extension Code	4	Inductance Code		
S	Small sizes	e.g.	Calculation		
		2R2	2.2μH		
		101	10×10 ¹ μH = 100μH		
5	Inductance Tolerance	6	RoHS Compliant		
M	±20%				

C DRAWINGS AND DIMENSIONS

Drawing	Schematic

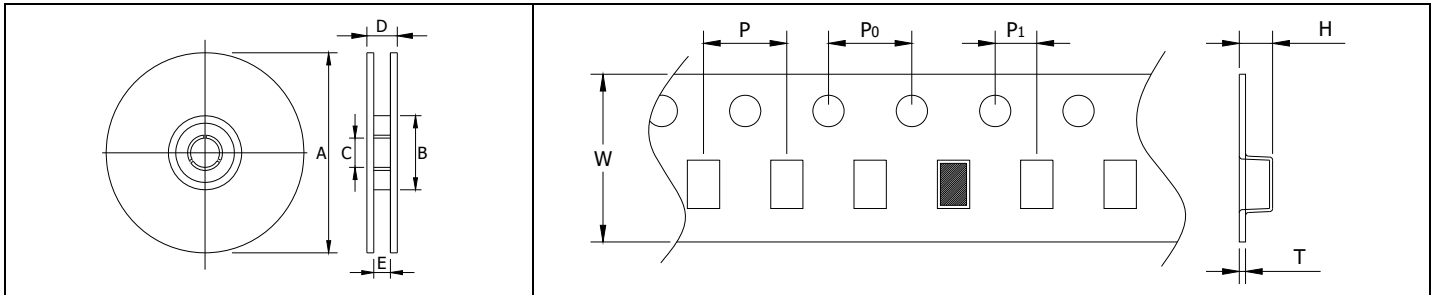
Case Size	Dimensions						
	A	B	C _{max}	D _{ref.}	I _{ref.}	J _{ref.}	H _{ref.}
1MT201610S	2.0±0.2	1.6±0.2	1.0	0.5	0.6	0.9	1.7
1MT252010S	2.5±0.2	2.0±0.2	1.0	0.9	0.9	0.8	2.1
1MT252012S	2.5±0.2	2.0±0.2	1.2	0.9	0.9	0.8	2.1

D SPECIFICATIONS

Part Number	Inductance ¹		DCR ²		Irms ³	Isat ⁴
	μH	Tolerance	Typ.(mΩ)	Max.(mΩ)	A	A
1MT201610S-R24MF	0.24	±20%	14	17	5.6	7.8
1MT201610S-R33MF	0.33	±20%	17	22	5.3	6.5
1MT201610S-R47MF	0.47	±20%	22	25	5.0	5.5
1MT201610S-R68MF	0.68	±20%	25	32	4.7	4.3
1MT201610S-1R0MF	1.0	±20%	35	43	4.1	4.2
1MT201610S-1R5MF	1.5	±20%	80	100	2.3	2.9
1MT201610S-2R2MF	2.2	±20%	120	130	2.1	2.8
1MT201610S-3R3MF	3.3	±20%	140	170	1.5	2.0
1MT201610S-4R7MF	4.7	±20%	190	220	1.4	1.8
1MT252010S-R24MF	0.24	±20%	12	17.5	6.4	7.8
1MT252010S-R33MF	0.33	±20%	13	19	6.2	7.2
1MT252010S-R47MF	0.47	±20%	15	22	5.6	6.5
1MT252010S-R68MF	0.68	±20%	23	27	5.0	5.5
1MT252010S-1R0MF	1.0	±20%	25	30	4.1	4.8
1MT252010S-1R5MF	1.5	±20%	45	55	3.0	3.9
1MT252010S-2R2MF	2.2	±20%	62	70	2.1	3.0
1MT252010S-3R3MF	3.3	±20%	86	100	2.1	2.5
1MT252010S-4R7MF	4.7	±20%	160	180	1.6	2.0
1MT252010S-100MF	10	±20%	500	560	1.6	1.0
1MT252012S-R24MF	0.24	±20%	10.4	12.5	6.4	9.0
1MT252012S-R33MF	0.33	±20%	13.5	17	6.1	8.0
1MT252012S-R47MF	0.47	±20%	14	18	6.0	6.8
1MT252012S-R68MF	0.68	±20%	19	23	5.0	6.0
1MT252012S-1R0MF	1.0	±20%	33	39.6	4.0	4.5
1MT252012S-1R5MF	1.5	±20%	48	56	3.2	3.8
1MT252012S-2R2MF	2.2	±20%	64	79	2.8	3.3
1MT252012S-3R3MF	3.3	±20%	103	125	1.8	2.5
1MT252012S-4R7MF	4.7	±20%	145	180	1.5	2.1
1MT252012S-6R8MF	6.8	±20%	225	265	1.3	1.9

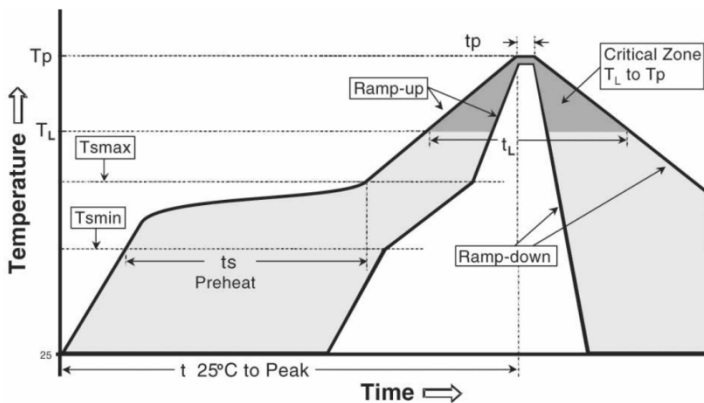
1. Inductance measured @ 1MHz, 1V at 25°Ctemperature.
2. DCR measured @ 25°C.
3. Irms: DC current for an approximate 40°C rise from 25°Cambient temperature.
4. Isat: DC current for approximate 30% roll off at 25°C.
5. Specifications subject to change without notice please check our website for latest information.

E TAPE AND REEL SPECIFICATIONS



Case Size	Parts per Reel	Reel Dimensions(REF)					Tape Dimensions(REF)					
		A	B	C	D	E	W	P	P ₀	P ₁	H	T
1MT201610S	3000	178	60	12	15	8.5	8	4	4	2	1.15	0.25
1MT252010S	3000	178	60	12	15	8.5	8	4	4	2	1.15	0.25
1MT252012S	3000	178	60	12	15	8.5	8	4	4	2	1.35	0.25

F RECOMMENDED SOLDERING PROFILE



Profile Feature	Recommended Conditions
Average ramp-up rate (T _{smax} to T _p)	3°C/second max.
Preheat	
Temperature Min (T _{smin})	150°C
Temperature Max (T _{smax})	200°C
Time (T _{smin} to T _{smax})(t _s)	60-180 seconds
Time maintained above:	
Temperature (T _L)	217°C
Time (t _L)	60-150 seconds
Peak Temperature (T _p)	See Table2
Time within 5°C of actual Peak Temperature (t _p) ²	20-40 seconds
Ramp-down Rate	6°C/second max.
Time 25°C to Peak Temperature	8 minutes max

Table 1

Package Thickness	Volume mm ³ <350	Volume mm ³ 350 - 2000	Volume mm ³ >2000
< 1.6mm	260°C	260°C	260°C
1.6mm - 2.5mm	260°C	250°C	245°C
>2.5mm	250°C	245°C	245°C

Table 2

- 1.The above profiles are based on IPC/JEDEC J-STD-020C.
2. Exceeding these conditions may cause lowered product reliability.