

A FEATURES

- Molded Metal Construction with ultra low DCR
- Magnetically shielded
- High current capability
- No acoustic noise and no leakage field
- Operating Temperature range from -40°C to +125°C (Including Self-heating)
- 260°C reflow peak temperature qualified



B PART NUMBER SYSTEM

1MT 1350 - 2R2 M F
 ① ② ③ ④ ⑤

①	Series	②	Dimension Code (L*W*H) (mm)		
1MT	Series Code		0420 (4.0×4.0×2.0)	0520 (5.4×5.4×2.0)	0530 (5.4×5.4×3.0)
			0724 (6.6×7.3×2.4)	0730 (6.6×7.3×3.0)	0750 (6.6×7.3×5.0)
③	Inductance Code		1030 (10.1×11.5×3.0)	1040 (10.1×11.5×4.0)	1050 (10.1×11.5×5.0)
e.g.	Calculation		1350 (12.6×13.8×5.0)	1360 (12.6×13.8×6.0)	1510 (16.5×15.5×9.7)
2R2	2.2μH		1870 (17.3×18.0×7.0)		
101	10×10 ¹ μH = 100μH				

⑤	RoHS Compliant	④	Inductance Tolerance
		M	±20%

C DRAWINGS AND DIMENSIONS

Drawing	Schematic

Case Size	Dimensions							
	A	B	C _{max}	D	E	I _{ref.}	J _{ref.}	H _{ref.}
1MT0420	4.0±0.3	4.5 Max	2.0	1.5±0.3	0.8±0.3	5.2	2.5	2.5
1MT0520	5.4±0.3	5.4 Max	2.0	2.0±0.3	1.1±0.3	6.0	2.2	2.5
1MT0530	5.4±0.3	5.4 Max	3.0	2.0±0.3	1.1±0.3	6.0	2.2	2.5
1MT0724	6.6±0.3	7.3 Max	2.4	3.0±0.3	1.6±0.3	8.4	3.7	3.5
1MT0730	6.6±0.3	7.3 Max	3.0	3.0±0.3	1.6±0.3	8.4	3.7	3.5
1MT0750	6.6±0.3	7.3 Max	5.0	3.0±0.3	1.6±0.3	8.4	3.7	3.5
1MT1030	10.1±0.3	11.5 Max	3.0	3.0±0.3	2.0±0.3	13.6	5.4	4.1
1MT1040	10.1±0.3	11.5 Max	4.0	3.0±0.3	2.0±0.3	13.6	5.4	4.1
1MT1050	10.1±0.3	11.5 Max	5.0	3.0±0.3	2.0±0.3	13.6	5.4	4.1
1MT1350	12.6±0.3	13.8 Max	5.0	4.0±0.3	2.0±0.3	14.5	8.0	5.0
1MT1360	12.6±0.3	13.8 Max	6.0	4.0±0.3	2.0±0.3	14.5	8.0	5.0
1MT1510	16.5±0.3	15.8 Max	10.0	14.0±0.3	3.0±0.3	15.0	6.0	15.0
1MT1870	17.3±0.3	18.0 Max	7.0	12.0±0.3	2.5±0.3	18.2	11.2	12.8

D SPECIFICATIONS

Part Number	Inductance ¹		DCR ²		Irms ³	Isat ⁴
	μH	Tolerance	Typ.(mΩ)	Max.(mΩ)	A	A
1MT0420-R10MF	0.10	±20%	4.5	5.0	11.0	30.0
1MT0420-R22MF	0.22	±20%	7.3	8.0	9.0	17.0
1MT0420-R47MF	0.47	±20%	14.0	15.5	6.0	11.5
1MT0420-1R0MF	1.0	±20%	32.0	36.0	3.8	8.5
1MT0420-1R5MF	1.5	±20%	38.0	46.0	3.5	6.0
1MT0420-2R2MF	2.2	±20%	52.0	58.0	3.0	5.0
1MT0420-3R3MF	3.3	±20%	74.0	87.0	2.5	4.0
1MT0420-4R7MF	4.7	±20%	95.0	105.0	2.1	2.5
1MT0420-6R8MF	6.8	±20%	140.0	160.0	2.0	2.1
1MT0420-100MF	10	±20%	220.0	250.0	1.8	2.0
1MT0420-150MF	15	±20%	290.0	340.0	1.6	2.0
1MT0420-220MF	22	±20%	310.0	360.0	1.2	1.4
1MT0520-R22MF	0.22	±20%	4.9	5.4	11.0	15.0
1MT0520-R33MF	0.33	±20%	7.6	8.8	10.0	13.0
1MT0520-R47MF	0.47	±20%	10.0	12.0	9.0	12.0
1MT0520-R68MF	0.68	±20%	13.8	16.5	7.5	11.0
1MT0520-1R0MF	1.0	±20%	18.9	20.0	7.0	10.0
1MT0520-1R5MF	1.5	±20%	25.8	33.0	5.5	8.0
1MT0520-2R2MF	2.2	±20%	38.6	46.0	4.5	7.0
1MT0520-3R3MF	3.3	±20%	52.0	65.0	3.5	6.0
1MT0520-4R7MF	4.7	±20%	108.0	100.0	2.8	5.0
1MT0520-5R6MF	5.6	±20%	113.0	105.0	2.5	4.0
1MT0520-6R8MF	6.8	±20%	139.0	140.0	2.0	4.0
1MT0520-100MF	10	±20%	184.0	195.0	1.8	3.0
1MT0530-R68MF	0.68	±20%	11.0	12.0	8.5	14.0
1MT0530-1R0MF	1.0	±20%	13.0	14.0	7.0	11.0
1MT0530-1R2MF	1.2	±20%	15.0	16.0	6.5	11.0
1MT0530-1R5MF	1.5	±20%	20.0	25.0	6.0	10.0
1MT0530-2R2MF	2.2	±20%	29.0	35.0	5.5	9.0
1MT0530-3R3MF	3.3	±20%	32.0	38.0	5.0	7.0
1MT0530-4R7MF	4.7	±20%	50.0	60.0	3.0	5.0
1MT0530-6R8MF	6.8	±20%	65.0	76.0	2.8	3.5
1MT0530-100MF	10	±20%	90.0	115.0	2.5	2.5
1MT0724-R10MF	0.10	±20%	1.5	1.7	30.0	70.0

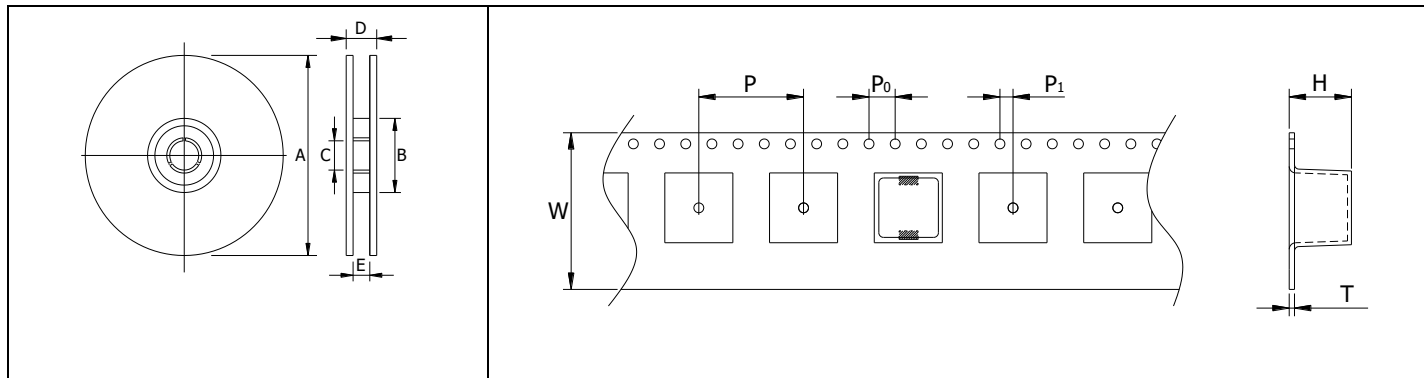
Inductance ¹			DCR ²		Irms ³	Isat ⁴
Part Number	μH	Tolerance	Typ.(mΩ)	Max.(mΩ)	A	A
1MT0724-R22MF	0.22	±20%	2.6	3.2	21.0	34.0
1MT0724-R33MF	0.33	±20%	3.5	4.1	18.0	24.5
1MT0724-R47MF	0.47	±20%	4.5	5.1	15.0	22.0
1MT0724-R56MF	0.56	±20%	5.9	6.5	13.0	17.0
1MT0724-R82MF	0.82	±20%	8.3	9.5	11.0	14.0
1MT0724-1R0MF	1.0	±20%	11.2	13.5	9.0	16.0
1MT0724-1R5MF	1.5	±20%	17.0	20.0	9.0	15.0
1MT0724-2R2MF	2.2	±20%	23.0	28.0	7.0	14.0
1MT0724-3R3MF	3.3	±20%	31.0	39.0	5.5	13.0
1MT0724-4R7MF	4.7	±20%	41.0	50.0	5.0	10.0
1MT0724-5R6MF	5.6	±20%	51.0	60.0	5.0	6.5
1MT0724-6R8MF	6.8	±20%	57.0	70.0	4.0	6.0
1MT0724-100MF	10	±20%	92.0	101.0	3.1	4.0
1MT0730-R10MF	0.10	±20%	1.5	1.7	32.5	60.0
1MT0730-R22MF	0.22	±20%	2.5	2.8	23.0	40.0
1MT0730-R33MF	0.33	±20%	3.5	3.9	20.0	30.0
1MT0730-R47MF	0.47	±20%	4.0	4.2	17.5	26.0
1MT0730-R56MF	0.56	±20%	4.7	5.0	16.5	25.5
1MT0730-R68MF	0.68	±20%	5.0	5.5	15.5	25.0
1MT0730-R82MF	0.82	±20%	6.7	8.0	13.0	24.0
1MT0730-1R0MF	1.0	±20%	9.0	10.0	11.0	22.0
1MT0730-1R5MF	1.5	±20%	14.0	15.0	9.0	18.0
1MT0730-2R2MF	2.2	±20%	18.0	20.0	8.0	14.0
1MT0730-3R3MF	3.3	±20%	28.0	30.0	6.0	13.5
1MT0730-4R7MF	4.7	±20%	37.0	40.0	5.5	10.0
1MT0730-6R8MF	6.8	±20%	54.0	60.0	4.5	8.0
1MT0730-8R2MF	8.2	±20%	54.0	60.0	4.5	6.0
1MT0730-100MF	10	±20%	62.0	68.0	4.0	5.5
1MT0730-150MF	15	±20%	110	130	2.5	3.0
1MT0730-220MF	22	±20%	160	185	2.5	3.0
1MT0730-330MF	33	±20%	280	310	2.0	2.5
1MT0730-470MF	47	±20%	330	385	1.5	2.0
1MT0750-R22MF	0.22	±20%	1.1	1.3	30.0	35.0
1MT0750-R47MF	0.47	±20%	2.9	3.8	20.0	21.0
1MT0750-R56MF	0.56	±20%	3.4	3.6	20.0	18.0
1MT0750-R82MF	0.82	±20%	3.9	4.9	16.5	17.0
1MT0750-1R0MF	1.0	±20%	5.2	6.5	12.0	13.0
1MT0750-1R5MF	1.5	±20%	7.3	8.5	10.0	10.0
1MT0750-2R2MF	2.2	±20%	10.0	12.5	9.5	10.0
1MT0750-3R3MF	3.3	±20%	14.0	20.9	8.5	9.0
1MT0750-4R7MF	4.7	±20%	24.0	27.0	6.5	8.0
1MT0750-6R8MF	6.8	±20%	34.0	38.0	5.5	7.0
1MT0750-100MF	10.0	±20%	48.0	55.0	4.5	6.0
1MT0750-150MF	15.0	±20%	76.0	85.0	3.1	4.0
1MT0750-220MF	22.0	±20%	110.0	130.0	2.6	3.5
1MT0750-330MF	33.0	±20%	160.0	200.0	2.3	3.0
1MT0750-470MF	47.0	±20%	252.0	290.0	2.0	2.8
1MT0750-680MF	68.0	±20%	320.0	390.0	1.2	2.1
1MT1030-R10MF	0.10	±20%	0.7	0.7	30.0	75.0
1MT1030-R33MF	0.33	±20%	1.3	1.6	23.0	32.0
1MT1030-R36MF	0.36	±20%	1.3	1.6	23.0	28.0
1MT1030-R47MF	0.47	±20%	2.1	2.5	23.0	26.0
1MT1030-R56MF	0.56	±20%	2.4	3.0	22.0	24.0
1MT1030-R68MF	0.68	±20%	2.9	3.4	21.0	23.0
1MT1030-1R0MF	1.0	±20%	5.3	6.0	15.0	21.0
1MT1030-1R5MF	1.5	±20%	6.5	7.5	13.5	20.0

Inductance ¹			DCR ²		Irms ³	Isat ⁴
Part Number	μH	Tolerance	Typ.(mΩ)	Max.(mΩ)	A	A
1MT1030-2R2MF	2.2	±20%	8.0	9.0	13.0	16.0
1MT1030-3R3MF	3.3	±20%	14.5	16.0	9.0	14.0
1MT1030-4R7MF	4.7	±20%	20.5	22.5	7.0	13.0
1MT1030-8R2MF	8.2	±20%	35.0	45.0	5.0	8.5
1MT1030-100MF	10	±20%	50.0	55.0	5.0	7.5
1MT1030-150MF	15	±20%	59.0	65.0	4.0	6.0
1MT1040-R22MF	0.22	±20%	0.7	0.8	38.0	60.0
1MT1040-R36MF	0.36	±20%	1.1	1.3	30.0	60.0
1MT1040-R39MF	0.39	±20%	1.1	1.3	30.0	60.0
1MT1040-R47MF	0.47	±20%	1.6	1.8	26.0	40.0
1MT1040-R56MF	0.56	±20%	1.6	1.8	26.0	40.0
1MT1040-R68MF	0.68	±20%	2.4	2.7	22.0	39.0
1MT1040-R82MF	0.82	±20%	2.7	3.0	20.0	38.0
1MT1040-1R0MF	1.0	±20%	3.0	3.3	18.0	36.0
1MT1040-1R5MF	1.5	±20%	3.8	4.2	16.0	33.0
1MT1040-2R2MF	2.2	±20%	6.7	7.0	12.0	27.0
1MT1040-3R3MF	3.3	±20%	11.0	13.2	11.0	16.0
1MT1040-4R7MF	4.7	±20%	13.2	16.5	10.0	13.0
1MT1040-5R6MF	5.6	±20%	16.0	18.5	8.5	10.5
1MT1040-6R8MF	6.8	±20%	21.5	24.0	7.5	9.5
1MT1040-8R2MF	8.2	±20%	25.0	27.0	7.0	9.0
1MT1040-100MF	10	±20%	27.0	30.0	7.0	8.5
1MT1040-150MF	15	±20%	40.0	45.0	6.0	7.0
1MT1040-220MF	22	±20%	60.0	66.0	5.0	5.5
1MT1040-330MF	33	±20%	85.0	92.0	4.4	5.0
1MT1040-470MF	47	±20%	130.0	145.0	3.3	3.5
1MT1040-680MF	68	±20%	178.0	195.0	2.3	3.0
1MT1040-101MF	100	±20%	290.0	340.0	2.0	2.3
1MT1050-R22MF	0.22	±20%	0.7	0.8	37.0	65.0
1MT1050-1R0MF	1.0	±20%	2.7	3.0	23.0	30.0
1MT1050-1R5MF	1.5	±20%	3.4	3.8	21.0	25.0
1MT1050-2R2MF	2.2	±20%	5.4	6.0	15.0	19.0
1MT1050-3R3MF	3.3	±20%	9.0	10.0	13.0	16.0
1MT1050-4R7MF	4.7	±20%	12.6	14.0	11.0	15.0
1MT1050-5R6MF	5.6	±20%	15.3	17.0	9.5	14.0
1MT1050-6R8MF	6.8	±20%	16.5	18.5	9.0	14.0
1MT1050-100MF	10	±20%	25.0	28.0	8.0	10.0
1MT1050-150MF	15	±20%	37.0	42.0	6.5	7.5
1MT1050-220MF	22	±20%	45.0	50.0	5.5	6.0
1MT1050-330MF	33	±20%	77.0	86.0	4.8	5.2
1MT1050-470MF	47	±20%	114.0	127.0	3.7	4.5
1MT1050-101MF	100	±20%	261.0	290.0	2.1	2.8
1MT1350-R36MF	0.36	±20%	0.8	1.1	41.0	75.0
1MT1350-R47MF	0.47	±20%	1.1	1.3	38.0	65.0
1MT1350-R56MF	0.56	±20%	1.2	1.5	36.0	55.0
1MT1350-R68MF	0.68	±20%	1.5	1.7	34.0	54.0
1MT1350-R82MF	0.82	±20%	1.8	2.1	31.0	53.0
1MT1350-1R0MF	1.0	±20%	2.0	2.5	29.0	50.0
1MT1350-1R5MF	1.5	±20%	3.4	4.1	23.0	48.0
1MT1350-2R2MF	2.2	±20%	4.5	5.5	20.0	32.0
1MT1350-3R3MF	3.3	±20%	7.8	9.2	15.0	32.0
1MT1350-4R7MF	4.7	±20%	13.0	15.0	12.0	27.0
1MT1350-5R6MF	5.6	±20%	14.0	16.5	11.5	22.0
1MT1350-6R8MF	6.8	±20%	15.5	18.5	11.0	21.0
1MT1350-8R2MF	8.2	±20%	20.0	32.0	9.5	16.5
1MT1350-100MF	10.0	±20%	25.0	36.0	8.5	15.0

Part Number	Inductance ¹		DCR ²		Irms ³	Isat ⁴
	μH	Tolerance	Typ.(mΩ)	Max.(mΩ)	A	A
1MT1360-R68MF	0.68	±20%	1.8	2.0	30.0	40.0
1MT1360-1R5MF	1.5	±20%	2.3	2.7	23.0	32.0
1MT1360-2R2MF	2.2	±20%	2.6	3.0	20.0	25.0
1MT1360-3R3MF	3.3	±20%	7.0	8.0	13.0	25.0
1MT1360-4R7MF	4.7	±20%	8.0	9.0	15.0	24.0
1MT1360-5R6MF	5.6	±20%	10.0	11.0	13.0	22.5
1MT1360-6R8MF	6.8	±20%	12.0	13.5	12.0	19.0
1MT1360-8R2MF	8.2	±20%	14.0	16.0	11.0	13.5
1MT1360-100MF	10	±20%	17.5	20.7	10.0	12.5
1MT1360-120MF	12	±20%	20.0	23.0	9.0	10.0
1MT1360-150MF	15	±20%	25.0	29.0	8.5	9.0
1MT1360-180MF	18	±20%	30.0	35.0	7.5	8.0
1MT1360-220MF	22	±20%	34.0	40.0	7.0	7.5
1MT1360-270MF	27	±20%	45.0	56.0	6.5	6.0
1MT1360-330MF	33	±20%	55.0	75.0	5.5	6.0
1MT1360-470MF	47	±20%	75.0	90.0	5.0	5.5
1MT1360-680MF	68	±20%	115.0	140.0	4.0	4.5
1MT1360-101MF	100	±20%	170.0	200.0	3.0	3.5
1MT1360-121MF	120	±20%	210.0	235.0	2.0	3.2
1MT1360-151MF	150	±20%	300.0	350.0	1.5	2.7
1MT1510-4R7MF	4.7	±20%	3.2	3.8	30.0	39.0
1MT1510-5R6MF	5.6	±20%	3.6	4.2	28.0	34.0
1MT1510-6R8MF	6.8	±20%	4.0	4.6	26.0	31.0
1MT1510-8R2MF	8.2	±20%	6.5	7.2	25.0	28.0
1MT1510-100MF	10	±20%	7.6	8.6	24.0	26.0
1MT1510-150MF	15	±20%	10.5	11.5	18.0	18.0
1MT1510-220MF	22	±20%	14.0	15.8	14.2	16.0
1MT1510-330MF	33	±20%	17.5	20.0	12.3	14.0
1MT1870-1R0MF	1.0	±20%	1.7	2.0	52.0	70.0
1MT1870-1R5MF	1.5	±20%	2.1	2.5	47.0	65.0
1MT1870-2R2MF	2.2	±20%	2.3	2.7	43.5	62.0
1MT1870-3R3MF	3.3	±20%	3.3	3.9	28.0	54.0
1MT1870-4R7MF	4.7	±20%	4.8	5.5	25.0	50.0
1MT1870-6R8MF	6.8	±20%	8.5	9.2	19.0	39.0
1MT1870-8R2MF	8.2	±20%	10.0	10.8	18.0	31.0
1MT1870-100MF	10	±20%	11.5	13.0	16.5	29.0
1MT1870-150MF	15	±20%	18.0	20.5	12.5	27.0
1MT1870-220MF	22	±20%	23.5	26.5	12.0	23.0
1MT1870-330MF	33	±20%	40.0	44.0	10.7	20.0
1MT1870-390MF	39	±20%	43.0	48.0	9.2	18.0
1MT1870-470MF	47	±20%	50.0	55.0	8.7	16.0
1MT1870-560MF	56	±20%	56.0	62.0	7.8	15.0
1MT1870-680MF	68	±20%	72.0	80.0	7.0	13.0
1MT1870-101MF	100	±20%	105.0	118.0	5.3	12.0

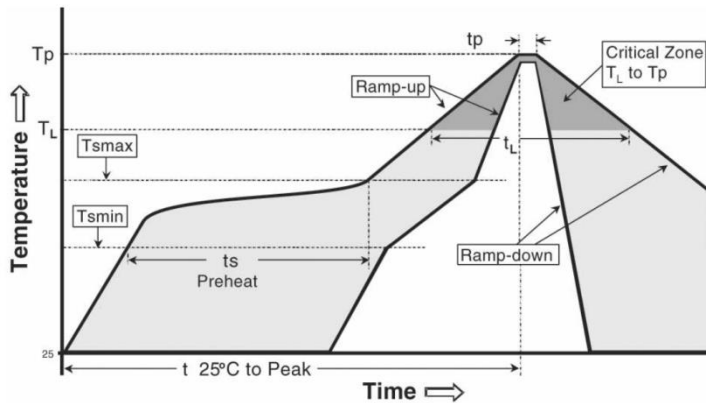
1. Inductance measured @ 100KHz, 0.3V at 25°Ctemperature.
2. DCR measured @ 25°C.
3. Irms: DC current for an approximate 40°C rise from 20°Cambient temperature.
4. Isat: DC current for approximate 25% roll off at 25°C.
5. Specifications subject to change without notice please check our website for latest 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
1MT0420	3000	330	100	13	19	12.4	12	8	4	2	2.5	0.3
1MT0520	3000	330	100	13	23	16.4	16	12	4	2	2.5	0.3
1MT0530	2000	330	100	13	23	16.4	16	12	4	2	3.5	0.3
1MT0724	2000	330	100	13	23	16.4	16	12	4	2	2.9	0.3
1MT0730	1000	330	100	13	23	16.4	16	12	4	2	3.3	0.3
1MT0750	1000	330	100	13	23	16.4	16	12	4	2	5.5	0.3
1MT1030	1000	330	100	13	31	24.5	24	16	4	2	3.5	0.3
1MT1040	1000	330	100	13	31	24.5	24	16	4	2	4.5	0.3
1MT1050	800	330	100	13	31	24.5	24	16	4	2	5.5	0.3
1MT1350	500	330	100	13	31	24.5	24	16	4	2	5.5	0.3
1MT1360	500	330	100	13	31	24.5	24	16	4	2	6.5	0.3
1MT1510	150	330	100	13	40	33.0	32	24	4	2	10.5	0.5
1MT1870	200	330	100	13	40	33.0	32	24	4	2	7.3	0.5

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.