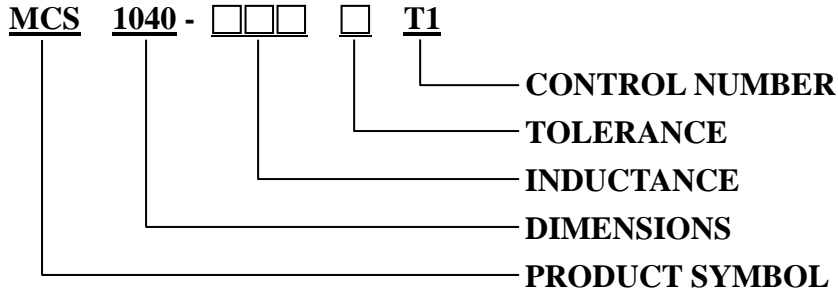


SPECIFICATION FOR APPROVAL

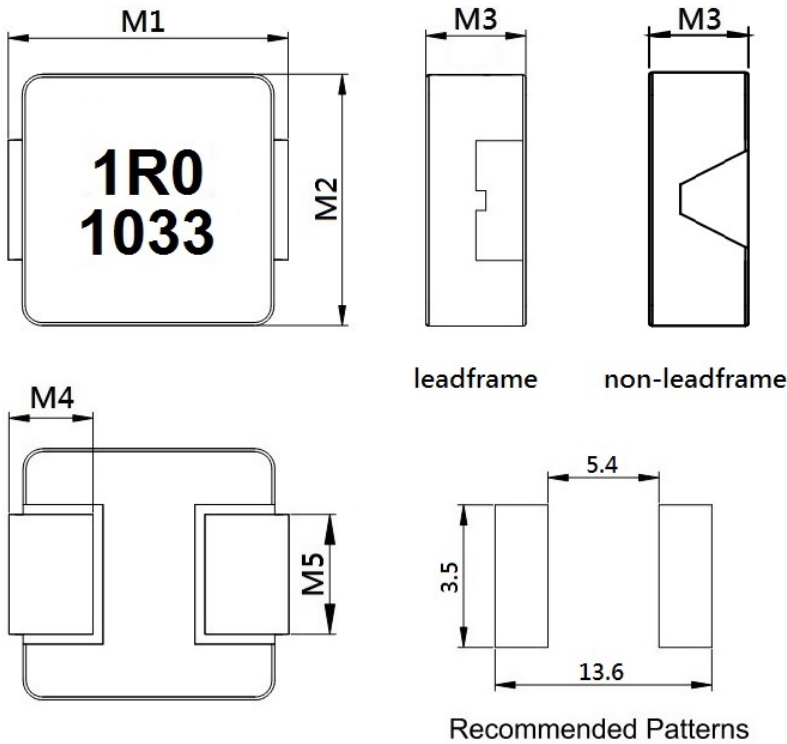
※This is a RoHS and REACH compliant product whose related documents are available on request.

※Graphic is only for dimensionally application.

1. PART NUMBERING IDENTIFICATION



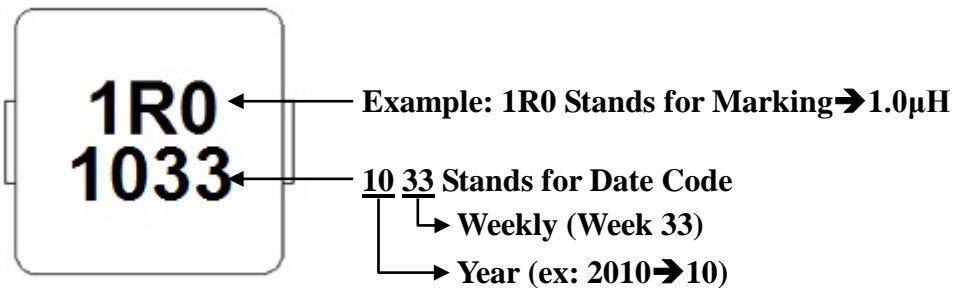
2. MECHANICAL DIMENSION



UNIT: mm

	DIM.	TOL.
M1	11.0	±0.5
M2	10.0	±0.3
M3	3.8	±0.2
M4	2.3	±0.3
M5	3.0	±0.3

3. MARKING AND DATE CODE



SPECIFICATION FOR APPROVAL

4. ELECTRICAL SPECIFICATION

Part number	Inductance (μH)	DC Resistance (mΩ) Typical	DC Resistance (mΩ) MAX.	I rms (A) Typical	I rms (A) MAX.	I sat (A) Typical	I sat (A) MAX.	Type
MCS1040-R15MT1	0.15	0.5	0.6	43.0	40.0	75.0	70.0	non-leadframe
MCS1040-R18NT1	0.18	0.54	0.8	38.0	36.0	72.0	68.0	non-leadframe
MCS1040-R20NT1	0.20	0.66	0.95	35.0	34.0	70.0	64.0	non-leadframe
MCS1040-R22MT1	0.22	0.8	1.0	35.0	33.0	60.0	57.0	non-leadframe
MCS1040-R27MT1	0.27	0.82	1.0	33.0	31.0	60.0	54.0	non-leadframe
MCS1040-R30MT1	0.30	0.94	1.1	32.0	30.0	60.0	52.0	non-leadframe
MCS1040-R33MT1	0.33	1.00	1.2	31.0	29.0	60.0	50.0	non-leadframe
MCS1040-R36MT1	0.36	1.05	1.2	31.0	28.0	60.0	48.0	non-leadframe
MCS1040-R39MT1	0.39	1.1	1.3	30.0	27.0	60.0	45.0	non-leadframe
MCS1040-R45MT1	0.45	1.3	1.5	29.0	26.0	45.0	41.0	non-leadframe
MCS1040-R47MT1	0.47	1.3	1.5	28.0	25.0	43.0	40.0	non-leadframe
MCS1040-R56MT1	0.56	1.6	1.8	25.0	24.0	40.0	38.0	non-leadframe
MCS1040-R68MT1	0.68	2.4	2.7	22.0	21.0	39.0	37.0	non-leadframe
MCS1040-R75MT1	0.75	2.4	2.7	22.0	20.0	39.0	36.0	non-leadframe
MCS1040-1R0MT1	1.00	3.0	3.3	18.0	17.0	36.0	34.0	non-leadframe
MCS1040-1R2MT1	1.20	3.3	3.8	17.0	16.0	33.0	32.0	non-leadframe
MCS1040-1R5MT1	1.50	4.0	4.6	16.0	15.0	33.0	31.0	non-leadframe
MCS1040-2R2MT1	2.20	6.5	7.0	12.0	11.0	27.0	25.0	leadframe
MCS1040-2R5MT1	2.50	7.9	8.7	11.5	10.5	23.0	21.0	leadframe
MCS1040-3R3MT1	3.30	10.8	11.8	11.0	10.0	20.0	18.0	leadframe
MCS1040-4R0MT1	4.00	13.0	15.0	10.2	9.5	18.0	17.0	leadframe
MCS1040-4R7MT1	4.70	15.0	15.5	10.0	9.0	17.0	16.0	leadframe
MCS1040-5R6MT1	5.60	17.0	19.3	9.0	8.5	14.0	13.0	leadframe
MCS1040-6R8MT1	6.80	17.5	23.3	8.5	7.5	13.5	12.3	leadframe
MCS1040-8R2MT1	8.20	20.0	22.5	8.0	6.8	12.5	11.5	leadframe
MCS1040-100MT1	10.0	27.0	30.0	7.5	6.3	12.0	11.0	leadframe
MCS1040-150MT1	15.0	40.0	45.0	6.25	5.7	10.0	9.5	leadframe
MCS1040-220MT1	22.0	64.0	74.0	5.0	4.5	7.0	6.5	leadframe
MCS1040-270MT1	27.0	86.0	100.0	4.0	3.5	6.0	5.5	leadframe
MCS1040-330MT1	33.0	92.0	112.0	3.5	3.0	5.0	4.5	leadframe
MCS1040-470MT1	47.0	145.0	167.0	3.0	2.5	4.5	4.0	leadframe
MCS1040-680MT1	68.0	205.0	240.0	2.0	1.8	3.0	2.5	leadframe
MCS1040-820MT1	82.0	265.0	320.0	1.5	1.2	2.5	2.0	leadframe

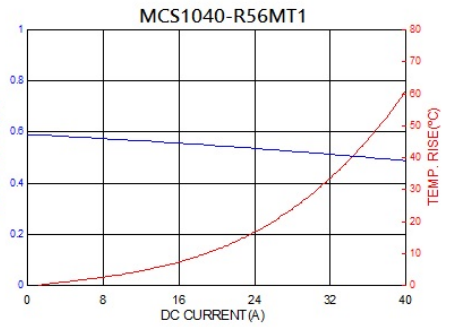
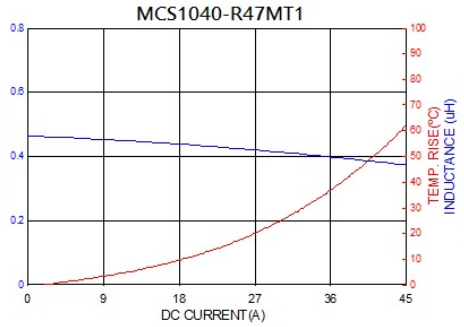
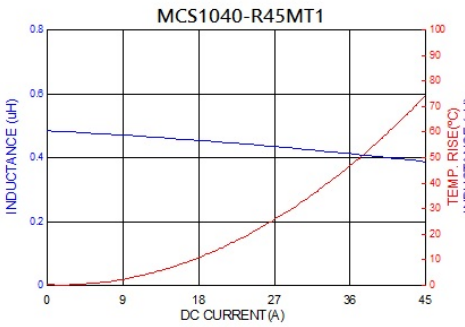
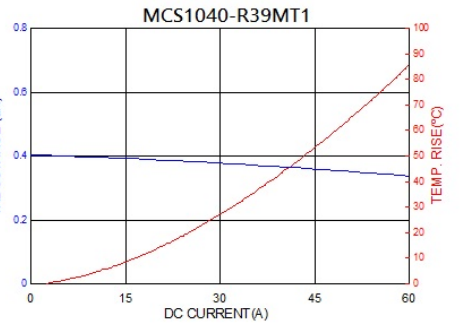
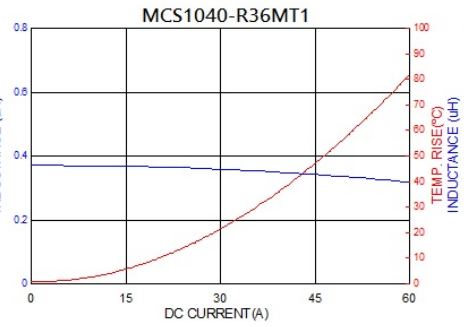
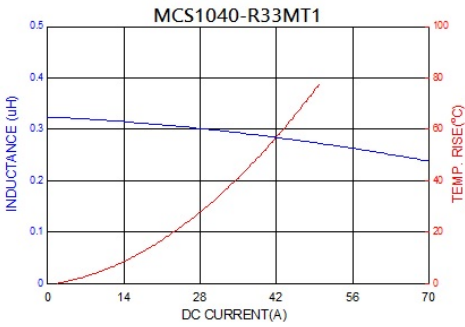
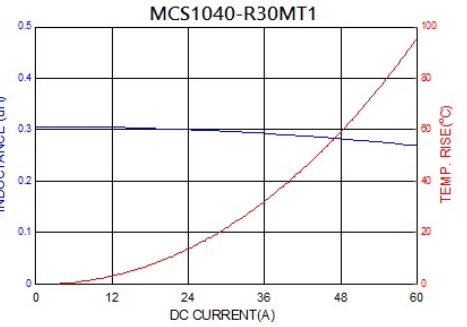
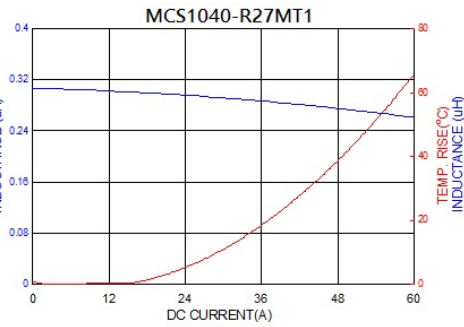
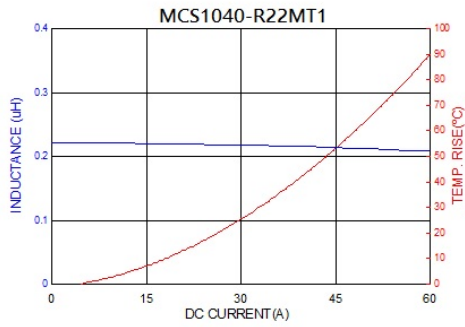
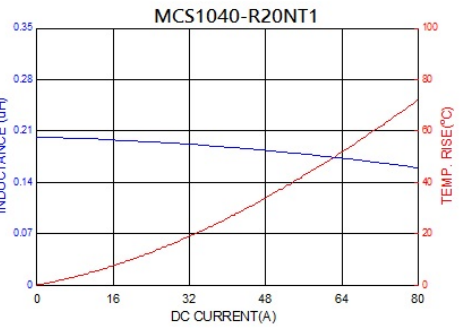
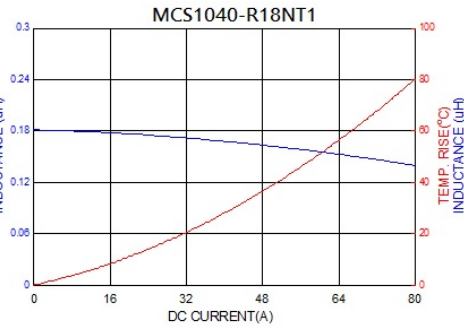
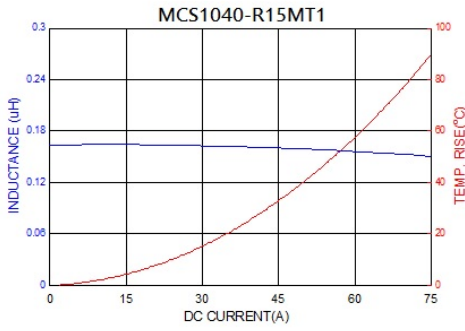
Tolerance: M:±20%, N:±30%

Note:

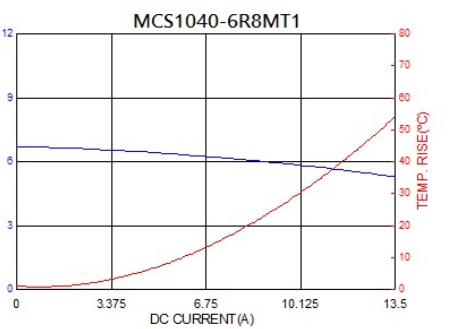
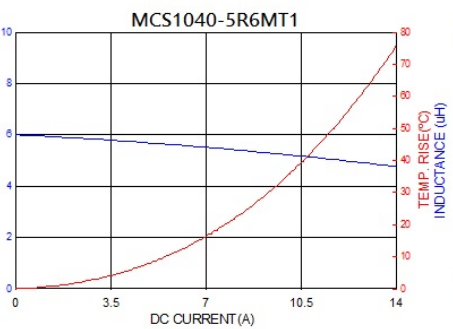
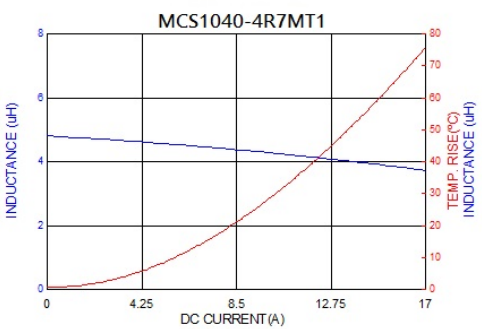
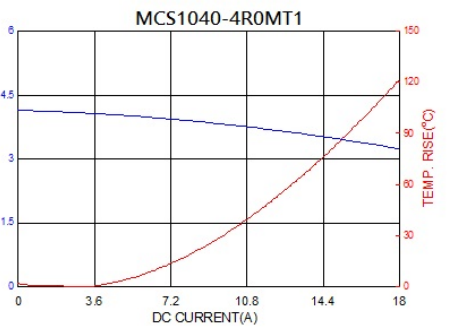
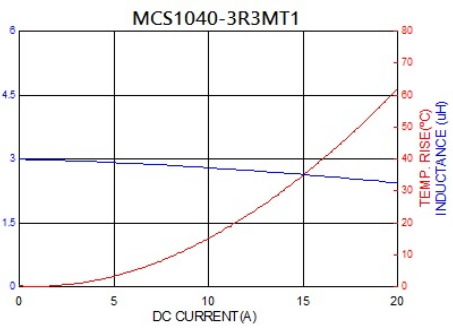
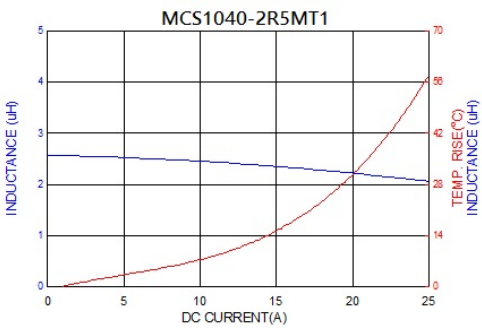
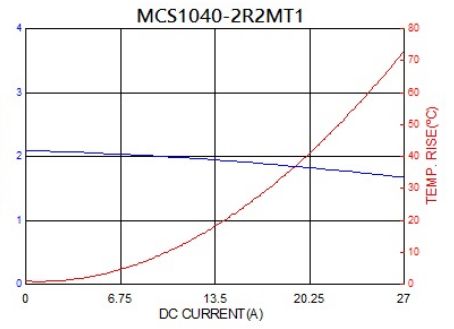
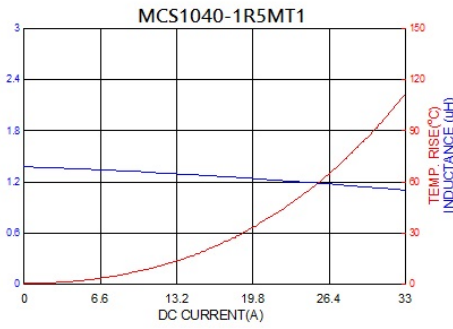
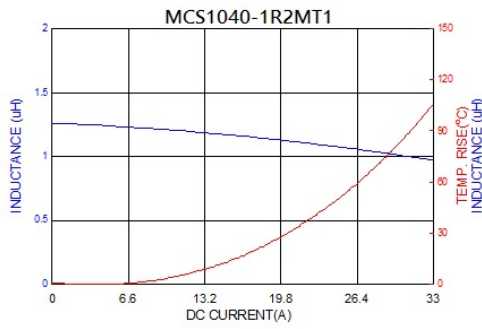
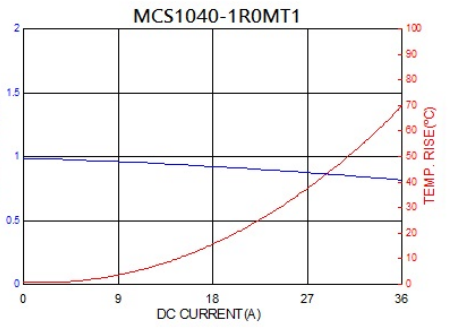
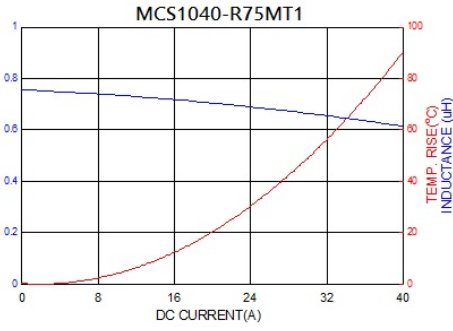
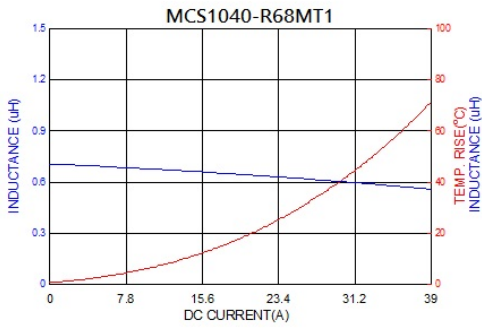
1. Test frequency: 100KHz/1.0V
2. Operating temperature: -40~+125°C (Including self - temperature rise)
3. Storage temperature:
 - 3-1. -10~+40°C, 50~60% RH (Product with taping)
 - 3-2. -40~+125°C (on board)
4. All test data referenced to 25°C ambient
5. Testing Instrument: Inductance: HP4284A, CH11025, CH3302, CH1320, CH1320S LCR Meter / DC Resistance: CH16502, Agilent33420A Micro ohm meter
6. Heat Rated Current (I_{rms}) will cause the coil temperature rise approximately Δt of 40°C
7. Saturation Current (I_{sat}) will cause L0 to drop approximately 30%
8. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application
9. MSL: Level 1

SPECIFICATION FOR APPROVAL

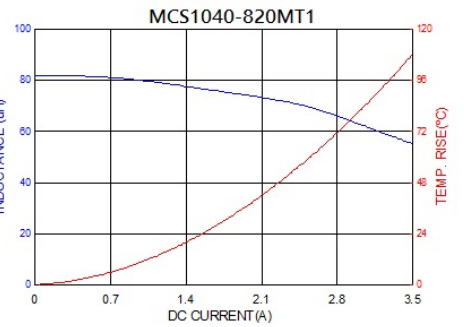
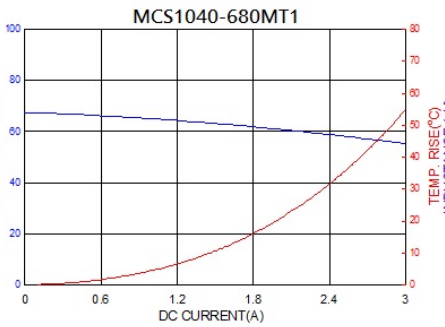
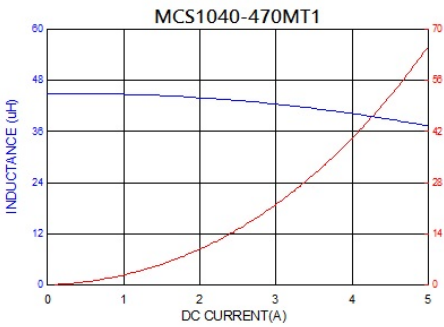
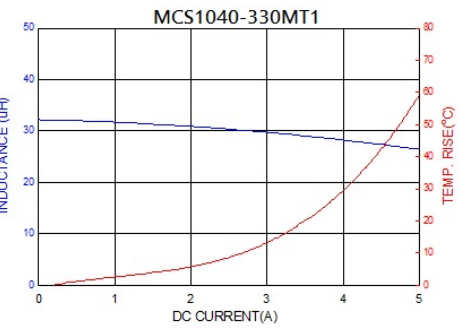
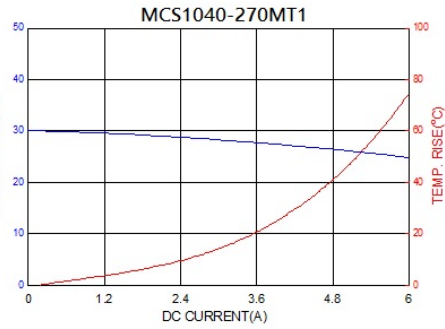
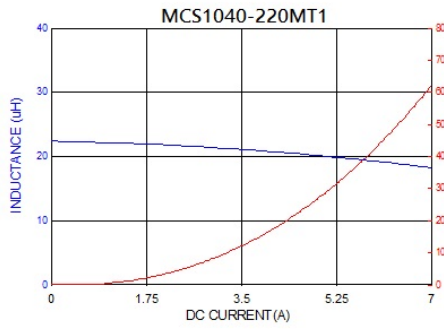
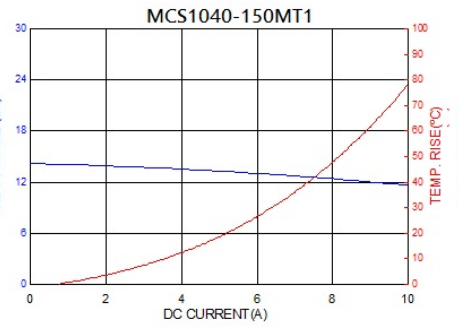
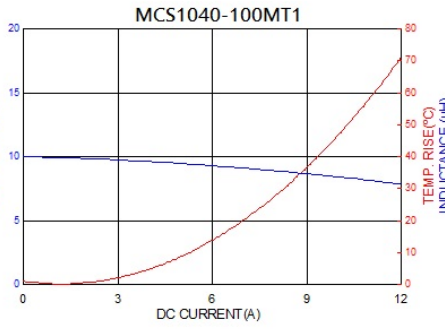
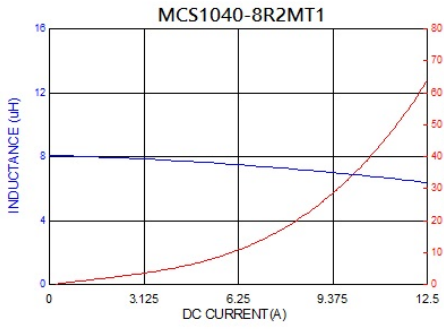
5. ELECTRICAL CURVE



SPECIFICATION FOR APPROVAL



SPECIFICATION FOR APPROVAL



WATKINS DIELECTRICS CO., LTD.