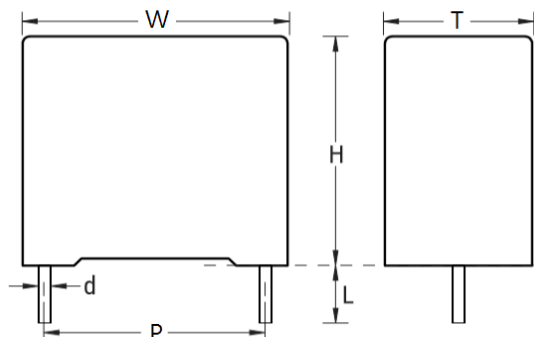


SMMC series (Boxed)

■ Outline Drawing



■ Typical Applications

Widely used in high voltage, frequency and pulse circuit
Electronic ballasts and compact lamps
Snubber and SCR commutating circuits

■ Features

Double sided metallized polypropylene film,
Low loss and small inherent temperature rise
Negative temperature coefficient of capacitance
Excellent active and passive flame resistant abilities
Plastic case (UL94V-0), Epoxy resin sealing.

■ Construction



■ Specifications

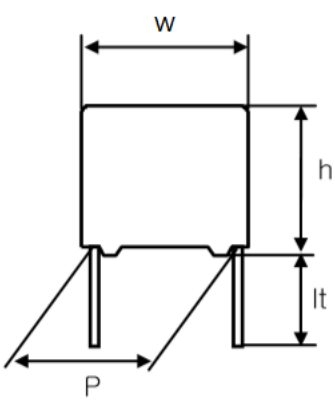
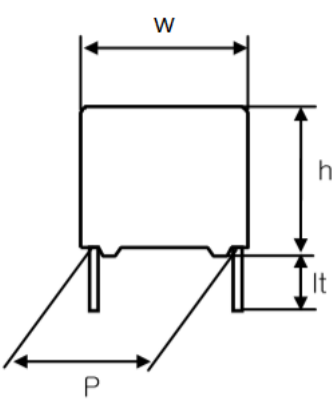
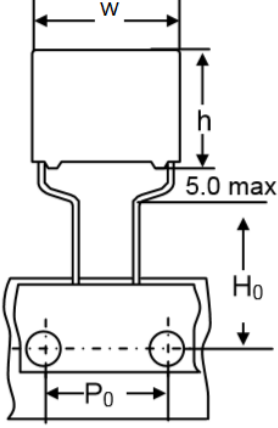
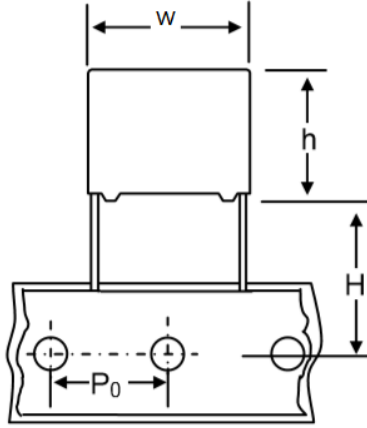
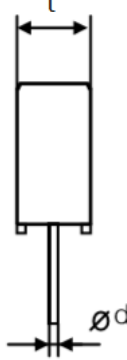
Reference Standard	GB/T 10190 (IEC 60384-16)					
Climatic Category	40/105/21					
Rated Temperature	85°C					
Operating Temperature Range	-40°C ~ +105°C (+85°C to +105°C: decreasing factor 1.25% per °C for U _R)					
Capacitance Range	0.00022μF ~ 3.9μF					
Rated (DC) Voltage	250V	400V	630V	1000V	1600V	2000V
Maximum continuous AC voltage	180V	250V	400V	600V	650V	700V
Capacitance Tolerance	±3%(H) 、 ±5%(J) 、 ±10%(K)					
Voltage Proof	1.6U _R , 5s (DC)					
Dissipation Factor	≤ 0.1% (25°C, 1kHz)					
Insulation Resistance	U _R > 100V	C _R ≤ 0.33μF IR ≥ 25,000MΩ C _R > 0.33μF IR ≥ 7,500s (20°C, 100V, 1min)				

SMMC series (Boxed)

■ Product code system

SMMC	F	473	K	1000	D	B	15	15
Type	Internal use	Capacitance	Tolerance	Rated Voltage	Voltage	Lead forming	Lead Pitch	Lead Length
SMMC= Double Sided Metallized Polypropylene Capacitor (Boxed)	--	473 =47000pF =47nF =0.047μF	J=±5% K=±10% M=±20%	0250=250V 0400=400V 0630=630V 1000=1000V 1600=1600V 2000=2000V	D=DC	Shown as Table I	08=7.5mm 10=10mm 15=15mm 23=22.5mm 28=27.5mm	04=3.5mm 15=15mm 23=23mm

■ Table I

Code	B (Straight 15mm)	K (Short)	U (Vertical Kink)
Lead Forming			
Code	T (Taping)	--	--
Lead Forming			--

SMMC series (Boxed)

■ Dimensions (mm)

250Vdc (180Vac)						
Cap. μF	W	H	T	P	d	Part number
0.0068	10	9	4	7.5	0.6	SMMC_682+0250D*08**
0.0082	10	9	4	7.5	0.6	SMMC_822+0250D*08**
0.010	10	9	4	7.5	0.6	SMMC_103+0250D*08**
0.012	10	9	4	7.5	0.6	SMMC_123+0250D*08**
0.015	10	9	4	7.5	0.6	SMMC_153+0250D*08**
0.018	10	9	4	7.5	0.6	SMMC_183+0250D*08**
0.022	10	9	4	7.5	0.6	SMMC_223+0250D*08**
0.027	10	11	5	7.5	0.6	SMMC_273+0250D*08**
0.033	10	11	5	7.5	0.6	SMMC_333+0250D*08**
0.039	10	12	6	7.5	0.6	SMMC_393+0250D*08**
0.047	10	12	6	7.5	0.6	SMMC_473+0250D*08**
0.027	13	9	4	10	0.6	SMMC_273+0250D*10**
0.033	13	9	4	10	0.6	SMMC_333+0250D*10**
0.039	13	9	4	10	0.6	SMMC_393+0250D*10**
0.047	13	11	5	10	0.6	SMMC_473+0250D*10**
0.056	13	11	5	10	0.6	SMMC_563+0250D*10**
0.068	13	12	6	10	0.6	SMMC_683+0250D*10**
0.082	13	12	6	10	0.6	SMMC_823+0250D*10**
0.068	18	11	5	15	0.8	SMMC_683+0250D*15**
0.082	18	11	5	15	0.8	SMMC_823+0250D*15**
0.10	18	11	5	15	0.8	SMMC_104+0250D*15**
0.12	18	12	6	15	0.8	SMMC_124+0250D*15**
0.15	18	12	6	15	0.8	SMMC_154+0250D*15**
0.18	18	13.5	7.5	15	0.8	SMMC_184+0250D*15**
0.22	18	13.5	7.5	15	0.8	SMMC_224+0250D*15**
0.27	18	14.5	8.5	15	0.8	SMMC_274+0250D*15**
0.33	18	15.5	9.5	15	0.8	SMMC_334+0250D*15**
0.39	18	15.5	9.5	15	0.8	SMMC_394+0250D*15**

250Vdc (180Vac)						
Cap. μF	W	H	T	P	d	Part number
0.22	26.5	15	6	22.5	0.8	SMMC_224+0250D*23**
0.27	26.5	15	6	22.5	0.8	SMMC_274+0250D*23**
0.33	26.5	15	6	22.5	0.8	SMMC_334+0250D*23**
0.39	26.5	16.5	7	22.5	0.8	SMMC_394+0250D*23**
0.47	26.5	16.5	7	22.5	0.8	SMMC_474+0250D*23**
0.56	26.5	17	8.5	22.5	0.8	SMMC_564+0250D*23**
0.68	26.5	19	10	22.5	0.8	SMMC_684+0250D*23**
0.82	26.5	19	10	22.5	0.8	SMMC_824+0250D*23**
1.0	26	21.5	12	22.5	0.8	SMMC_105+0250D*23**
0.82	31	18	9	27.5	0.8	SMMC_824+0250D*28**
1.0	31.5	19.5	10.8	27.5	0.8	SMMC_105+0250D*28**
1.2	31.5	19.5	10.8	27.5	0.8	SMMC_125+0250D*28**
1.5	31.5	21.6	13	27.5	0.8	SMMC_155+0250D*28**
1.8	31	25	14	27.5	0.8	SMMC_185+0250D*28**
2.2	31	25	14	27.5	0.8	SMMC_225+0250D*28**
2.7	32	28	18	27.5	0.8	SMMC_275+0250D*28**
3.3	32	28	18	27.5	0.8	SMMC_335+0250D*28**
3.9	32	28	18	27.5	0.8	SMMC_395+0250D*28**

SMMC series (Boxed)

■ Dimensions (mm)

400Vdc (250Vac)						
Cap. μF	W	H	T	P	d	Part number
0.0027	10	9	4	7.5	0.6	SMMC_272+0400D*08**
0.0033	10	9	4	7.5	0.6	SMMC_332+0400D*08**
0.0039	10	9	4	7.5	0.6	SMMC_392+0400D*08**
0.0047	10	9	4	7.5	0.6	SMMC_472+0400D*08**
0.0056	10	9	4	7.5	0.6	SMMC_562+0400D*08**
0.0068	10	9	4	7.5	0.6	SMMC_682+0400D*08**
0.0082	10	9	4	7.5	0.6	SMMC_822+0400D*08**
0.010	10	9	4	7.5	0.6	SMMC_103+0400D*08**
0.012	10	9	4	7.5	0.6	SMMC_123+0400D*08**
0.015	10	11	5	7.5	0.6	SMMC_153+0400D*08**
0.018	10	11	5	7.5	0.6	SMMC_183+0400D*08**
0.022	10	12	6	7.5	0.6	SMMC_223+0400D*08**
0.027	10	12	6	7.5	0.6	SMMC_273+0400D*08**
0.010	13	9	4	10	0.6	SMMC_103+0400D*10**
0.012	13	9	4	10	0.6	SMMC_123+0400D*10**
0.015	13	9	4	10	0.6	SMMC_153+0400D*10**
0.018	13	9	4	10	0.6	SMMC_183+0400D*10**
0.022	13	9	4	10	0.6	SMMC_223+0400D*10**
0.027	13	11	5	10	0.6	SMMC_273+0400D*10**
0.033	13	11	5	10	0.6	SMMC_333+0400D*10**
0.039	13	12	6	10	0.6	SMMC_393+0400D*10**
0.047	13	12	6	10	0.6	SMMC_473+0400D*10**
0.033	18	11	5	15	0.8	SMMC_333+0400D*15**
0.039	18	11	5	15	0.8	SMMC_393+0400D*15**
0.047	18	11	5	15	0.8	SMMC_473+0400D*15**
0.056	18	11	5	15	0.8	SMMC_563+0400D*15**
0.068	18	12	6	15	0.8	SMMC_683+0400D*15**
0.082	18	12	6	15	0.8	SMMC_823+0400D*15**
0.10	18	13.5	7.5	15	0.8	SMMC_104+0400D*15**
0.12	18	13.5	7.5	15	0.8	SMMC_124+0400D*15**
0.15	18	14.5	8.5	15	0.8	SMMC_154+0400D*15**

400Vdc (250Vac)						
Cap. Mf	W	H	T	P	d	Part number
0.18	18	15.5	9.5	15	0.8	SMMC_184+0400D*15**
0.22	18	15.5	9.5	15	0.8	SMMC_224+0400D*15**
0.27	18	19	10.8	15	0.8	SMMC_274+0400D*15**
0.12	26.5	15	6	22.5	0.8	SMMC_124+0400D*23**
0.15	26.5	15	6	22.5	0.8	SMMC_154+0400D*23**
0.18	26.5	15	6	22.5	0.8	SMMC_184+0400D*23**
0.22	26.5	16.5	7	22.5	0.8	SMMC_224+0400D*23**
0.27	26.5	17	8.5	22.5	0.8	SMMC_274+0400D*23**
0.33	26.5	17	8.5	22.5	0.8	SMMC_334+0400D*23**
0.39	26.5	19	10	22.5	0.8	SMMC_394+0400D*23**
0.47	26.5	19	10	22.5	0.8	SMMC_474+0400D*23**
0.56	26	21.5	12	22.5	0.8	SMMC_564+0400D*23**
0.68	26	21.5	12	22.5	0.8	SMMC_684+0400D*23**
0.39	31	18	9	27.5	0.8	SMMC_394+0400D*28**
0.47	31	18	9	27.5	0.8	SMMC_474+0400D*28**
0.56	31.5	19.5	10.8	27.5	0.8	SMMC_564+0400D*28**
0.68	31.5	19.5	10.8	27.5	0.8	SMMC_684+0400D*28**
0.82	31.5	21.6	13	27.5	0.8	SMMC_824+0400D*28**
1.0	31	25	14	27.5	0.8	SMMC_105+0400D*28**
1.2	31	25	14	27.5	0.8	SMMC_125+0400D*28**
1.5	32	28	18	27.5	0.8	SMMC_155+0400D*28**
1.8	32	28	18	27.5	0.8	SMMC_185+0400D*28**

SMMC series (Boxed)

■ Dimensions (mm)

630Vdc (400Vac)						
Cap. μF	W	H	T	P	d	Part number
0.00068	10	9	4	7.5	0.6	SMMC_681+0630D*08**
0.00082	10	9	4	7.5	0.6	SMMC_821+0630D*08**
0.0010	10	9	4	7.5	0.6	SMMC_102+0630D*08**
0.0012	10	9	4	7.5	0.6	SMMC_122+0630D*08**
0.0015	10	9	4	7.5	0.6	SMMC_152+0630D*08**
0.0018	10	9	4	7.5	0.6	SMMC_182+0630D*08**
0.0022	10	9	4	7.5	0.6	SMMC_222+0630D*08**
0.0027	10	9	4	7.5	0.6	SMMC_272+0630D*08**
0.0033	10	9	4	7.5	0.6	SMMC_332+0630D*08**
0.0039	10	9	4	7.5	0.6	SMMC_392+0630D*08**
0.0047	10	9	4	7.5	0.6	SMMC_472+0630D*08**
0.0056	10	9	4	7.5	0.6	SMMC_562+0630D*08**
0.0068	10	11	5	7.5	0.6	SMMC_682+0630D*08**
0.0082	10	11	5	7.5	0.6	SMMC_822+0630D*08**
0.010	10	12	6	7.5	0.6	SMMC_103+0630D*08**
0.012	10	12	6	7.5	0.6	SMMC_123+0630D*08**
0.0039	13	9	4	10	0.6	SMMC_392+0630D*10**
0.0047	13	9	4	10	0.6	SMMC_472+0630D*10**
0.0056	13	9	4	10	0.6	SMMC_562+0630D*10**
0.0068	13	9	4	10	0.6	SMMC_682+0630D*10**
0.0082	13	9	4	10	0.6	SMMC_822+0630D*10**
0.010	13	11	5	10	0.6	SMMC_103+0630D*10**
0.012	13	11	5	10	0.6	SMMC_123+0630D*10**
0.015	13	12	6	10	0.6	SMMC_153+0630D*10**
0.018	13	12	6	10	0.6	SMMC_183+0630D*10**
0.010	18	11	5	15	0.8	SMMC_103+0630D*15**
0.012	18	11	5	15	0.8	SMMC_123+0630D*15**
0.015	18	11	5	15	0.8	SMMC_153+0630D*15**
0.018	18	11	5	15	0.8	SMMC_183+0630D*15**
0.022	18	11	5	15	0.8	SMMC_223+0630D*15**

630Vdc (400Vac)						
Cap. μF	W	H	T	P	d	Part number
0.027	18	11	5	15	0.8	SMMC_273+0630D*15**
0.033	18	12	6	15	0.8	SMMC_333+0630D*15**
0.039	18	12	6	15	0.8	SMMC_393+0630D*15**
0.047	18	12	6	15	0.8	SMMC_473+0630D*15**
0.056	18	13.5	7.5	15	0.8	SMMC_563+0630D*15**
0.068	18	14.5	8.5	15	0.8	SMMC_683+0630D*15**
0.082	18	14.5	8.5	15	0.8	SMMC_823+0630D*15**
0.10	18	15.5	9.5	15	0.8	SMMC_104+0630D*15**
0.12	18	19	10.8	15	0.8	SMMC_124+0630D*15**
0.047	26.5	15	6	22.5	0.8	SMMC_473+0630D*23**
0.068	26.5	15	6	22.5	0.8	SMMC_683+0630D*23**
0.10	26.5	15	6	22.5	0.8	SMMC_104+0630D*23**
0.12	26.5	16.5	7	22.5	0.8	SMMC_124+0630D*23**
0.15	26.5	17	8.5	22.5	0.8	SMMC_154+0630D*23**
0.18	26.5	17	8.5	22.5	0.8	SMMC_184+0630D*23**
0.22	26.5	19	10	22.5	0.8	SMMC_224+0630D*23**
0.27	26	21.5	12	22.5	0.8	SMMC_274+0630D*23**
0.33	26	21.5	12	22.5	0.8	SMMC_334+0630D*23**
0.39	26	21.5	12	22.5	0.8	SMMC_394+0630D*23**
0.15	31	18	9	27.5	0.8	SMMC_154+0630D*28**
0.22	31	18	9	27.5	0.8	SMMC_224+0630D*28**
0.27	31	18	9	27.5	0.8	SMMC_274+0630D*28**
0.33	31.5	19.5	10.8	27.5	0.8	SMMC_334+0630D*28**
0.39	31.5	19.5	10.8	27.5	0.8	SMMC_394+0630D*28**
0.47	31.5	21.6	13	27.5	0.8	SMMC_474+0630D*28**
0.56	31.5	21.6	13	27.5	0.8	SMMC_564+0630D*28**
0.68	31	25	14	27.5	0.8	SMMC_684+0630D*28**
0.82	31	29.5	15	27.5	0.8	SMMC_824+0630D*28**
1.0	32	28	18	27.5	0.8	SMMC_105+0630D*28**
1.2	32	28	18	27.5	0.8	SMMC_125+0630D*28**

SMMC series (Boxed)

■ Dimensions (mm)

1000Vdc (600Vac)						
Cap. μF	W	H	T	P	d	Part number
0.00047	10	9	4	7.5	0.6	SMMC_471+1000D*08**
0.00056	10	9	4	7.5	0.6	SMMC_561+1000D*08**
0.00068	10	9	4	7.5	0.6	SMMC_681+1000D*08**
0.00082	10	9	4	7.5	0.6	SMMC_821+1000D*08**
0.001	10	9	4	7.5	0.6	SMMC_102+1000D*08**
0.0012	10	11	5	7.5	0.6	SMMC_122+1000D*08**
0.0015	10	11	5	7.5	0.6	SMMC_152+1000D*08**
0.0018	10	11	5	7.5	0.6	SMMC_182+1000D*08**
0.0022	10	11	5	7.5	0.6	SMMC_222+1000D*08**
0.0027	10	12	6	7.5	0.6	SMMC_272+1000D*08**
0.0033	10	12	6	7.5	0.6	SMMC_332+1000D*08**
0.001	13	9	4	10	0.6	SMMC_102+1000D*10**
0.0015	13	9	4	10	0.6	SMMC_152+1000D*10**
0.0018	13	9	4	10	0.6	SMMC_182+1000D*10**
0.0022	13	9	4	10	0.6	SMMC_222+1000D*10**
0.0027	13	9	4	10	0.6	SMMC_272+1000D*10**
0.0033	13	9	4	10	0.6	SMMC_332+1000D*10**
0.0039	13	11	5	10	0.6	SMMC_392+1000D*10**
0.0047	13	11	5	10	0.6	SMMC_472+1000D*10**
0.0056	13	12	6	10	0.6	SMMC_562+1000D*10**
0.0068	13	12	6	10	0.6	SMMC_682+1000D*10**
0.0082	18	11	5	15	0.8	SMMC_822+1000D*15**
0.01	18	11	5	15	0.8	SMMC_103+1000D*15**
0.012	18	11	5	15	0.8	SMMC_123+1000D*15**
0.015	18	11	5	15	0.8	SMMC_153+1000D*15**
0.018	18	13.5	7.5	15	0.8	SMMC_183+1000D*15**
0.022	18	13.5	7.5	15	0.8	SMMC_223+1000D*15**
0.027	18	14.5	8.5	15	0.8	SMMC_273+1000D*15**
0.033	18	14.5	8.5	15	0.8	SMMC_333+1000D*15**
0.039	18	15.5	9.5	15	0.8	SMMC_393+1000D*15**
0.047	18	19	10.8	15	0.8	SMMC_473+1000D*15**

1000Vdc (600Vac)						
Cap. μF	W	H	T	P	d	Part number
0.027	26.5	15	6	22.5	0.8	SMMC_273+1000D*23**
0.033	26.5	15	6	22.5	0.8	SMMC_333+1000D*23**
0.039	26.5	15	6	22.5	0.8	SMMC_393+1000D*23**
0.047	26.5	16.5	7	22.5	0.8	SMMC_473+1000D*23**
0.056	26.5	16.5	7	22.5	0.8	SMMC_563+1000D*23**
0.068	26.5	17	8.5	22.5	0.8	SMMC_683+1000D*23**
0.082	26.5	19	10	22.5	0.8	SMMC_823+1000D*23**
0.1	26.5	19	10	22.5	0.8	SMMC_104+1000D*23**
0.12	26	21.5	12	22.5	0.8	SMMC_124+1000D*23**
0.15	26	21.5	12	22.5	0.8	SMMC_154+1000D*23**
0.1	31	18	9	27.5	0.8	SMMC_104+1000D*28**
0.12	31.5	19.5	10.8	27.5	0.8	SMMC_124+1000D*28**
0.15	31.5	19.5	10.8	27.5	0.8	SMMC_154+1000D*28**
0.18	31.5	21.6	13	27.5	0.8	SMMC_184+1000D*28**
0.22	31.5	21.6	13	27.5	0.8	SMMC_224+1000D*28**
0.27	31	25	14	27.5	0.8	SMMC_274+1000D*28**
0.33	31	29.5	15	27.5	0.8	SMMC_334+1000D*28**
0.39	32	28	18	27.5	0.8	SMMC_394+1000D*28**
0.47	32	28	18	27.5	0.8	SMMC_474+1000D*28**

SMMC series (Boxed)

■ Dimensions (mm)

1600Vdc (650Vac)						
Cap. μF	W	H	T	P	d	Part number
0.00068	18	11	5	15	0.8	SMMC_681+1600D*15**
0.00082	18	11	5	15	0.8	SMMC_821+1600D*15**
0.001	18	11	5	15	0.8	SMMC_102+1600D*15**
0.0012	18	11	5	15	0.8	SMMC_122+1600D*15**
0.0015	18	11	5	15	0.8	SMMC_152+1600D*15**
0.0018	18	11	5	15	0.8	SMMC_182+1600D*15**
0.0022	18	11	5	15	0.8	SMMC_222+1600D*15**
0.0027	18	11	5	15	0.8	SMMC_272+1600D*15**
0.0033	18	11	5	15	0.8	SMMC_332+1600D*15**
0.0039	18	11	5	15	0.8	SMMC_392+1600D*15**
0.0047	18	11	5	15	0.8	SMMC_472+1600D*15**
0.0056	18	11	5	15	0.8	SMMC_562+1600D*15**
0.0068	18	11	5	15	0.8	SMMC_682+1600D*15**
0.0082	18	12	6	15	0.8	SMMC_822+1600D*15**
0.01	18	12	6	15	0.8	SMMC_103+1600D*15**
0.012	18	13.5	7.5	15	0.8	SMMC_123+1600D*15**
0.015	18	13.5	7.5	15	0.8	SMMC_153+1600D*15**
0.018	18	14.5	8.5	15	0.8	SMMC_183+1600D*15**
0.022	18	14.5	8.5	15	0.8	SMMC_223+1600D*15**
0.027	18	15.5	9.5	15	0.8	SMMC_273+1600D*15**
0.033	18	19	10.8	15	0.8	SMMC_333+1600D*15**

1600Vdc (650Vac)						
Cap. μF	W	H	T	P	d	Part number
0.015	26.5	15	6	22.5	0.8	SMMC_153+1600D*23**
0.018	26.5	15	6	22.5	0.8	SMMC_183+1600D*23**
0.022	26.5	15	6	22.5	0.8	SMMC_223+1600D*23**
0.027	26.5	15	6	22.5	0.8	SMMC_273+1600D*23**
0.033	26.5	16.5	7	22.5	0.8	SMMC_333+1600D*23**
0.039	26.5	17	8.5	22.5	0.8	SMMC_393+1600D*23**
0.047	26.5	19	10	22.5	0.8	SMMC_473+1600D*23**
0.056	26.5	19	10	22.5	0.8	SMMC_563+1600D*23**
0.068	26	21.5	12	22.5	0.8	SMMC_683+1600D*23**
0.082	26	21.5	12	22.5	0.8	SMMC_823+1600D*23**
0.039	31	18	9	27.5	0.8	SMMC_393+1600D*28**
0.047	31	18	9	27.5	0.8	SMMC_473+1600D*28**
0.056	31	18	9	27.5	0.8	SMMC_563+1600D*28**
0.068	31	18	9	27.5	0.8	SMMC_683+1600D*28**
0.082	31.5	19.5	10.8	27.5	0.8	SMMC_823+1600D*28**
0.1	31.5	19.5	10.8	27.5	0.8	SMMC_104+1600D*28**
0.12	31.5	21.6	13	27.5	0.8	SMMC_124+1600D*28**
0.15	31	25	14	27.5	0.8	SMMC_154+1600D*28**
0.18	31	25	14	27.5	0.8	SMMC_184+1600D*28**
0.22	32	28	18	27.5	0.8	SMMC_224+1600D*28**
0.27	32	28	18	27.5	0.8	SMMC_274+1600D*28**
0.33	32	28	18	27.5	0.8	SMMC_334+1600D*28**

SMMC series (Boxed)

■ Dimensions (mm)

2000Vdc (700Vac)						
Cap. μF	W	H	T	P	d	Part number
0.00022	18	11	5	15	0.8	SMMC_221+2000D*15**
0.00027	18	11	5	15	0.8	SMMC_271+2000D*15**
0.00033	18	11	5	15	0.8	SMMC_331+2000D*15**
0.00039	18	11	5	15	0.8	SMMC_391+2000D*15**
0.00047	18	11	5	15	0.8	SMMC_471+2000D*15**
0.00056	18	11	5	15	0.8	SMMC_561+2000D*15**
0.00068	18	11	5	15	0.8	SMMC_681+2000D*15**
0.00082	18	11	5	15	0.8	SMMC_821+2000D*15**
0.001	18	11	5	15	0.8	SMMC_102+2000D*15**
0.0012	18	11	5	15	0.8	SMMC_122+2000D*15**
0.0015	18	11	5	15	0.8	SMMC_152+2000D*15**
0.0018	18	11	5	15	0.8	SMMC_182+2000D*15**
0.0022	18	11	5	15	0.8	SMMC_222+2000D*15**
0.0027	18	11	5	15	0.8	SMMC_272+2000D*15**
0.0033	18	12	6	15	0.8	SMMC_332+2000D*15**
0.0039	18	12	6	15	0.8	SMMC_392+2000D*15**
0.0047	18	12	6	15	0.8	SMMC_472+2000D*15**
0.0056	18	13.5	7.5	15	0.8	SMMC_562+2000D*15**
0.0068	18	13.5	7.5	15	0.8	SMMC_682+2000D*15**
0.0082	18	14.5	8.5	15	0.8	SMMC_822+2000D*15**
0.01	18	15.5	9.5	15	0.8	SMMC_103+2000D*15**
0.012	18	15.5	9.5	15	0.8	SMMC_123+2000D*15**
0.015	18	19	10.8	15	0.8	SMMC_153+2000D*15**
0.001	26.5	15	6	22.5	0.8	SMMC_102+2000D*23**
0.0012	26.5	15	6	22.5	0.8	SMMC_122+2000D*23**
0.0015	26.5	15	6	22.5	0.8	SMMC_152+2000D*23**
0.0018	26.5	15	6	22.5	0.8	SMMC_182+2000D*23**
0.0022	26.5	15	6	22.5	0.8	SMMC_222+2000D*23**
0.0027	26.5	15	6	22.5	0.8	SMMC_272+2000D*23**
0.0033	26.5	15	6	22.5	0.8	SMMC_332+2000D*23**

2000Vdc (700Vac)						
Cap. μF	W	H	T	P	d	Part number
0.0039	26.5	15	6	22.5	0.8	SMMC_392+2000D*23**
0.0047	26.5	15	6	22.5	0.8	SMMC_472+2000D*23**
0.0056	26.5	15	6	22.5	0.8	SMMC_562+2000D*23**
0.0068	26.5	15	6	22.5	0.8	SMMC_682+2000D*23**
0.0082	26.5	15	6	22.5	0.8	SMMC_822+2000D*23**
0.01	26.5	15	6	22.5	0.8	SMMC_103+2000D*23**
0.012	26.5	15	6	22.5	0.8	SMMC_123+2000D*23**
0.015	26.5	16.5	7	22.5	0.8	SMMC_153+2000D*23**
0.018	26.5	16.5	7	22.5	0.8	SMMC_183+2000D*23**
0.022	26.5	17	8.5	22.5	0.8	SMMC_223+2000D*23**
0.027	26.5	19	10	22.5	0.8	SMMC_273+2000D*23**
0.033	26.5	19	10	22.5	0.8	SMMC_333+2000D*23**
0.039	26	21.5	12	22.5	0.8	SMMC_393+2000D*23**
0.047	26	21.5	12	22.5	0.8	SMMC_473+2000D*23**
0.022	31	18	9	27.5	0.8	SMMC_223+2000D*28**
0.027	31	18	9	27.5	0.8	SMMC_273+2000D*28**
0.033	31	18	9	27.5	0.8	SMMC_333+2000D*28**
0.039	31.5	19.5	10.8	27.5	0.8	SMMC_393+2000D*28**
0.047	31.5	19.5	10.8	27.5	0.8	SMMC_473+2000D*28**
0.056	31.5	21.6	13	27.5	0.8	SMMC_563+2000D*28**
0.068	31.5	21.6	13	27.5	0.8	SMMC_683+2000D*28**
0.082	31	25	14	27.5	0.8	SMMC_823+2000D*28**
0.1	31	29.5	15	27.5	0.8	SMMC_104+2000D*28**
0.12	32	28	18	27.5	0.8	SMMC_124+2000D*28**
0.15	32	28	18	27.5	0.8	SMMC_154+2000D*28**

+ = Capacitance tolerance: K=±10%, J=±5%

* = Lead forming

** = Lead length

SMMC series (Boxed)

■ Specifications (GB/T 10190)

試驗項目 Test items	性能要求 Performance requirements	試驗條件 Conditions of test
電容量 Capacitance	在規定公差內 Within the tolerance specified	1KHz, 1Vrms Max. at 25°C
損耗因素 Dissipation Factor	0.001 (0.1%) Max.	1KHz, 1Vrms Max. at 25°C
耐電壓 Voltage proof	應無異常 Shall be no abnormality	引線間 Between terminals 1.6U _R (Vdc) Test of 5sec.
絕緣電阻 Insulation resistance	$C_R \leq 0.33\mu F$ IR $\geq 25,000M\Omega$, $C_R > 0.33\mu F$ IR $\geq 7,500s$	100Vdc, 60sec / 20°C
引出端強度試驗 Robustness of terminations	無斷線, 電容器無損壞 No wire breakage and no damage of capacitor	端子強度 Tense Strength of Terminal 負載重量 Load Force : 1.0 Kg 保持時間 Holding Time : 10 ± 1sec
		抗彎強度 Bending Strength of Terminal 負載重量 Load Force : 0.5 Kg 彎曲時間 Bending Time : 4 x 90 °
耐焊接熱 Resistance to soldering heat	(1) Appearance : No visible damage (2) $\Delta C/C$: $\leq \pm 3\%$ of the initial value (3) DF (tan δ) : ≤ 0.004 of increased value	焊接溫度 Solder temperature: 260±5°C 焊接時間 Solder time: 5±0.5sec
可焊性 Solderability	表面鍍錫 95% 95% of the surface tinning	焊接溫度 Solder temperature: 260±5°C 焊接時間 Solder time: 2±0.5sec
溫度快速變化 Rapid change of temperature	應目視檢查電容器, 並無可見損壞 The capacitors shall be visually examined and there shall be no visible damage.	下限溫度 Lower category temperature: -40°C 上限溫度 Upper category temperature: 85°C 循環次數 Number of cycles: 5 持續時間 Duration t1 = 30 min
振動 Vibration	應目視檢查電容器, 並無可見損壞 The capacitors shall be visually examined and there shall be no visible damage	頻率範圍 Frequency range: 10~55Hz 振幅軸向 Course: X、Y、Z (axis) 持續時間 2h / axis (6h in total) 位移振幅 Displacement amplitude: 0.75mm

SMMC series (Boxed)

■ Specifications (GB/T 10190)

試驗項目 Test items	性能要求 Performance requirements	試驗條件 Conditions of test
氣候序列 Climatic sequence	(1) Appearance : No visible damage (2) $\Delta C/C : \leq \pm 5\%$ of the initial value (3) $DF (\tan\delta) : \leq 0.005$ of increased value (4) $IR : \geq 50\%$ of the applicable limits (5) Voltage proof : Normal	乾熱 Dry Heat 上限溫度 Upper Temperature: 85°C 持續時間 Lower Duration: 16Hrs
		寒冷 Cold 下限溫度 Temperature: -40°C 持續時間 Duration: 2Hrs
濕熱穩態 Damp Heat Steady State	(1) Appearance : No visible damage (2) $\Delta C/C : \leq \pm 5\%$ of the Initial value (3) $DF (\tan\delta) : \leq 0.002$ of increased value (4) $IR : \geq 50\%$ of the applicable limits (5) Voltage proof : Normal	溫度 +40°C, 濕度 93%, 21 天 +40°C and 93% RH, 21 days
耐久性 Endurance	(1) Appearance : No Visible Damage (2) $\Delta C/C : \leq \pm 5\%$ of the initial value (3) $DF (\tan\delta) : \leq 0.004$ of increased value (4) $IR : \geq 50\%$ of the applicable limits	實驗電壓 $U_R \times 125\%$, 實驗溫度 Temperature: +85°C 實驗時間 Time: 1000Hrs
充放電 Charge and discharge	(1) Appearance : No visible damage (2) $\Delta C/C : \leq \pm 5\%$ of the initial value (3) $DF (\tan\delta) : \leq 0.005$ of increased value (4) $IR : \geq 50\%$ of the applicable limits	實驗電壓 Test voltage : Rated (DC) voltage 充放電 Charge and discharge: 0.5sec/time 重複次數 Repeated for 10000 cycles

■ Mark

Pitch 7.5mm	Pitch ≥ 10 mm
	
1. WDC is a registered trademark of WINDAY	2. Capacitance: 561 indicates 560pF or 0.00056μF
3. Capacitors Tolerance: K=±10%	4. Rated Voltage: 2000Vdc, Indicates 2000
5. MC for Double sided metallized polypropylene film	

SMMC series (Boxed)

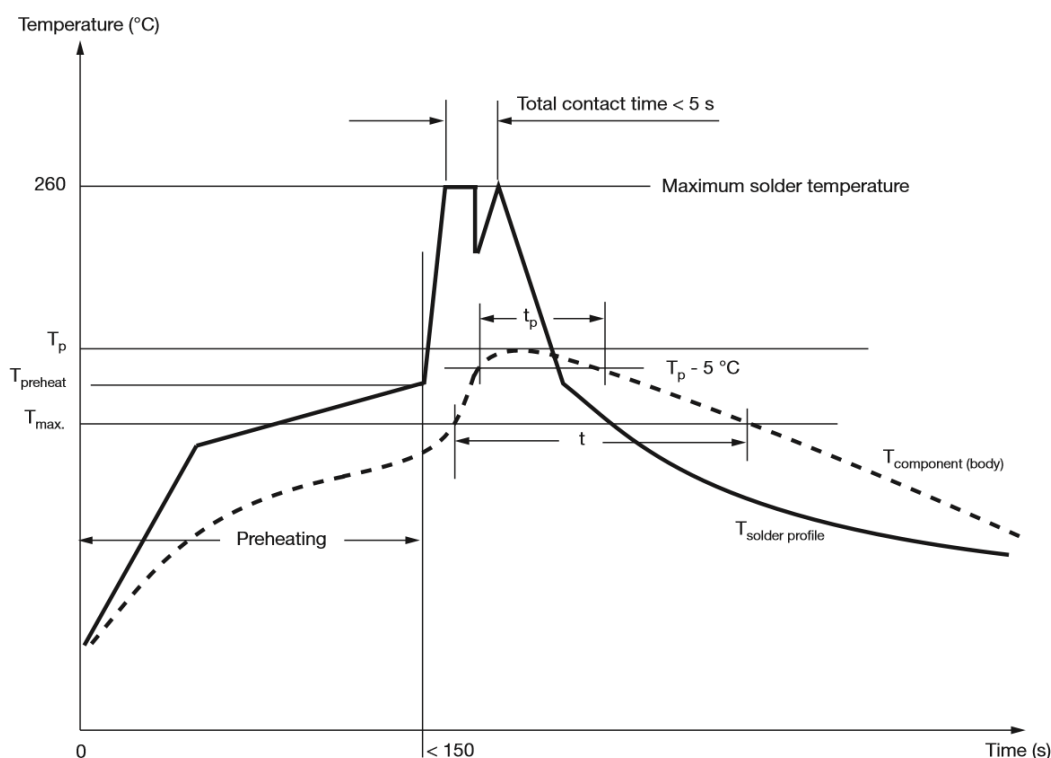
■ Soldering Guidelines for Film Capacitors

WDC recommends that users observe the following guidelines for soldering our film capacitors. Adherence to these recommendations will help to safeguard product specifications and reliability while preventing damage to the capacitors during soldering.

SOLDERING GUIDELINES AND RECOMMENDED WAVE SOLDERING PROFILE

With regard to the resistance to soldering heat and the solderability, our products comply with “IEC 60384-1” and the additional type specifications. The recommended wave soldering profile for our leaded components is defined as follows:

■ Wave Soldering Recommendations



T_p : Peak temperature of the component body (top)

$T_{max.}$: Maximum application temperature of the component

The PSL (Process Sensitivity Level) is classified according JEDEC standard J-STD-075 “Classification of Non-IC Electronic Components for Assembly Processes” and summarized in following tables per product family and pitch size of the component:

SERIES	PRODUCT PITCH SIZE							
	5 mm	7.5 mm	10 mm	15 mm	22.5 mm	27.5 mm	31.5 mm	37.5 mm
SMMC	--	(3),(5)	(2),(5)	(1),(6)	(1),(6)	(1),(6)	--	--

(1) No risk

During soldering: $T_p \leq 110^\circ\text{C}$, $t_p \leq 20\text{ s}$, $t \leq 30\text{ s}$

(2) Risk for parameter change if PSL is not strictly followed

(5) Temperature is measured at the body top and must be kept as follows:

(3) Risk for product damage if PSL is not strictly followed

During preheating: $T_{max.} \leq 110^\circ\text{C}$

(4) Temperature is measured at the body top and must be kept as follows:

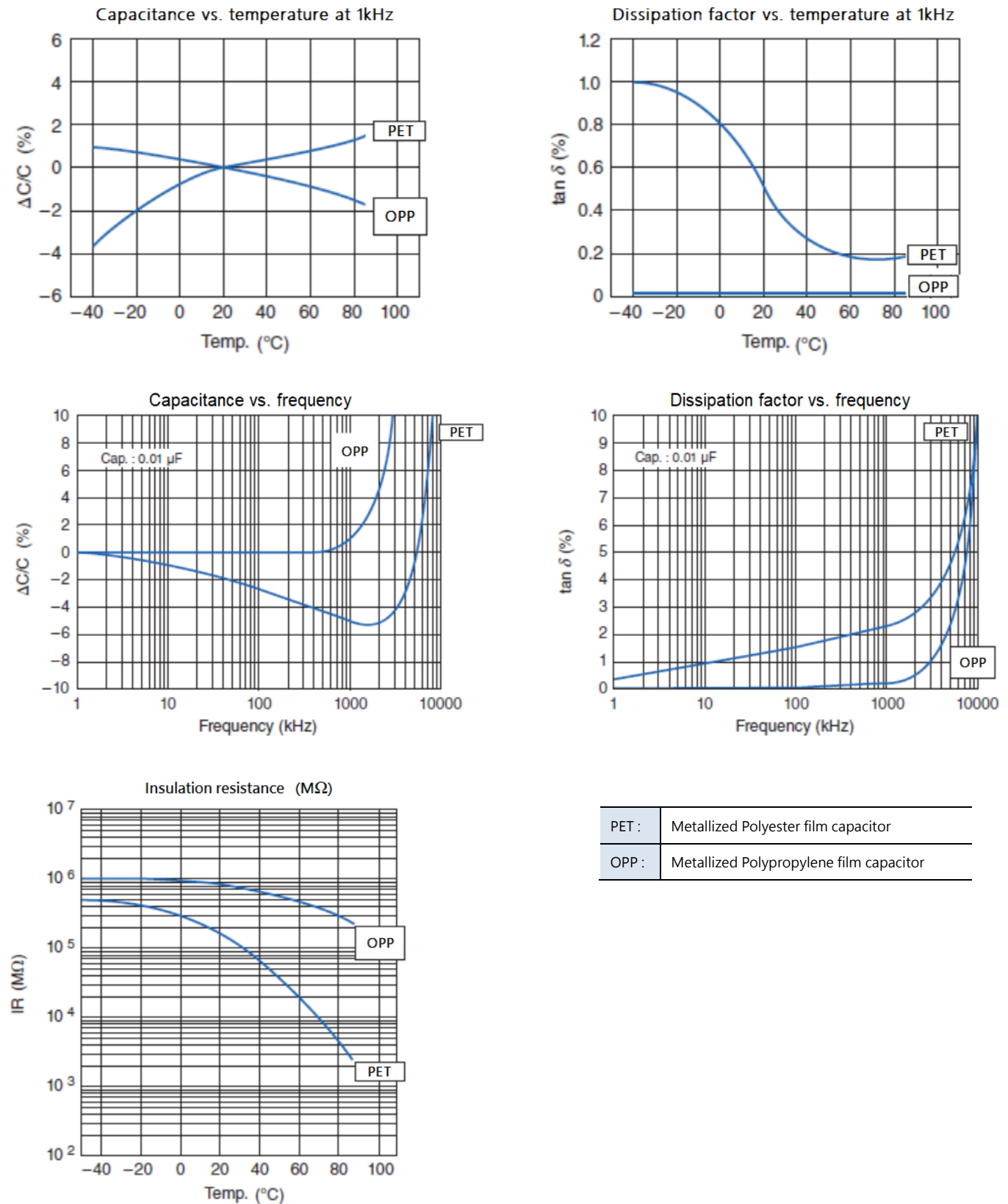
During soldering: $T_p \leq 120^\circ\text{C}$, $t_p \leq 20\text{ s}$, $t \leq 30\text{ s}$

During preheating: $T_{max.} \leq 100^\circ\text{C}$

(6) The component has a preheat limitation of 150 °C

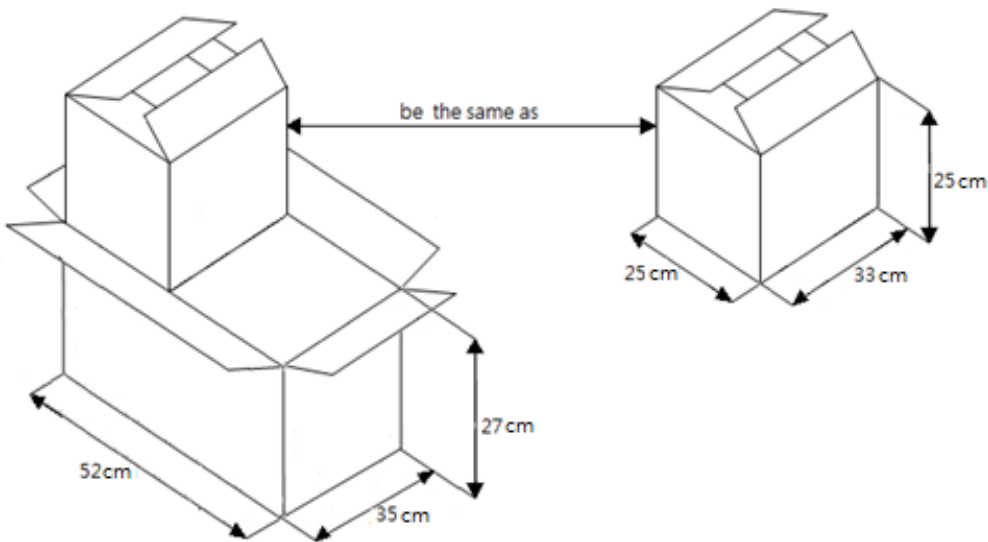
SMMC series (Boxed)

■ Typical graphs



SMMC series (Boxed)

■ Packaging



Size (mm)	Pcs / Bag	Pcs / Inner carton (L33:cm XH:25cm X T:25cm)	Pcs / Out box (L52:cm XH:27cm X T:35cm)
18 * 12 * 6	500	5000	10000

■ Storage conditions and duration

Packaged capacitors should be kept in clean, ventilated, dry coffers, not near the heat source, not subject to direct sunlight, is strictly prohibited and chemical reagents, acid and harmful gas storage together.

Capacitor at a temperature within the range 20 ~ 25 °C, humidity less than 50% of the state of storage for one year.