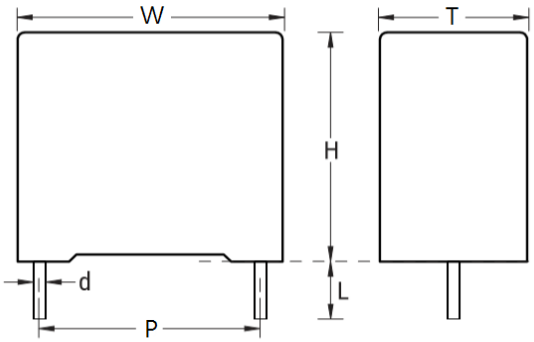
SMEC series

■ Outline Drawing



■ Typical Applications

By-passing, blocking, coupling, decoupling

Pulse, logic, timing, oscillator circuits

■ Features

Metalized polyester film,

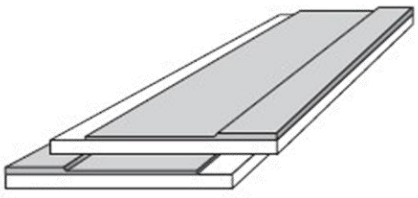
non-inductive wound construction

Wide capacitance range, small size, and light weight

Long life due to self-healing

Plastic case (UL94V-0), epoxy resin sealing

■ Construction



■ Specifications

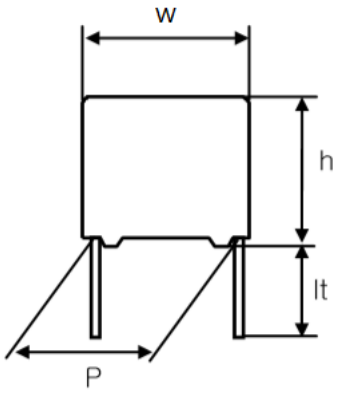
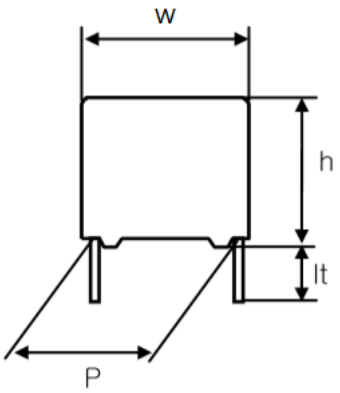
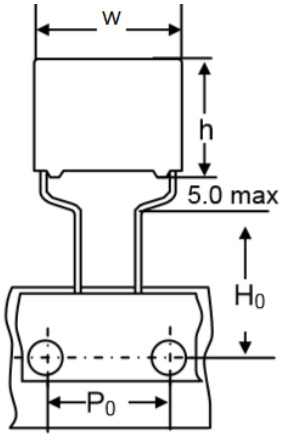
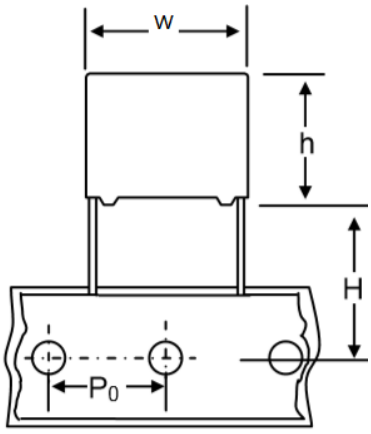
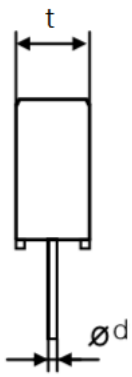
Reference Standard	GB/T 7332 (IEC 60384-2)					
Climatic Category	40/105/21					
Rated Temperature	85℃					
Operating Temperature Range	-40℃~+105℃ (+85℃ to +105℃: decreasing factor 1.25% per ℃ for U_R)					
Capacitance Range	0.001μF ~ 47μF					
Rated (DC) Voltage	63V	100V	250V	400V	630V	1000V
Maximum continuous AC voltage	40V	63V	160V	200V	220V	300V
Capacitance Tolerance	±5%(J)、±10%(K) 、±20%(M)					
Voltage Proof	1.6U_R, 5s (DC)					
Dissipation Factor	≤ 1.0% (25℃, 1kHz)					
Insulation Resistance	U_R>100V	C_R ≤ 0.33μF IR ≥ 7,500MΩ C_R >0.33μF IR ≥ 2,500s (20℃, 100V, 1min)				

SMEC series

■ Product code system

SMEC	J	103	K	0630	D	B	10	23
Type	Internal use	Capacitance	Tolerance	Rated Voltage	Voltage	Lead forming	Lead Pitch	Lead Length
SMEC= Metallized Polyester Capacitor (Boxed)	--	103 =10000pF =10nF =0.01μF	J=±5% K=±10% M=±20%	0063=63V 0100=100V 0160=160V 0250=250V 0400=400V 0630=630V 1000=1000V	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			--

SMEC series

■ Dimensions (mm)

63Vdc (40Vac)						
Cap. µF	W	H	T	P	d	Part number
0.47	10.5	8.5	3.5	7.5	0.6	SMEC_474+0063D*08**
0.68	10.5	9	4	7.5	0.6	SMEC_684+0063D*08**
1.0	10.5	11	5	7.5	0.6	SMEC_105+0063D*08**
1.5	10.5	12	6	7.5	0.6	SMEC_155+0063D*08**
1.8	10.5	12	6	7.5	0.6	SMEC_185+0063D*08**
0.10	13	9	4	10	0.6	SMEC_104+0063D*10**
0.15	13	9	4	10	0.6	SMEC_154+0063D*10**
0.22	13	9	4	10	0.6	SMEC_224+0063D*10**
0.33	13	9	4	10	0.6	SMEC_334+0063D*10**
0.47	13	9	4	10	0.6	SMEC_474+0063D*10**
0.68	13	9	4	10	0.6	SMEC_684+0063D*10**
1.0	13	9	4	10	0.6	SMEC_105+0063D*10**
1.5	13	11	5	10	0.6	SMEC_155+0063D*10**
1.8	13	12	6	10	0.6	SMEC_185+0063D*10**
2.2	13	12	6	10	0.6	SMEC_225+0063D*10**
0.68	18	11	5	15	0.8	SMEC_684+0063D*15**
1.0	18	11	5	15	0.8	SMEC_105+0063D*15**
1.5	18	11	5	15	0.8	SMEC_155+0063D*15**
2.2	18	11	5	15	0.8	SMEC_225+0063D*15**
3.3	18	12	6	15	0.8	SMEC_335+0063D*15**
4.7	18	13.5	7.5	15	0.8	SMEC_475+0063D*15**
6.8	18	14.5	8.5	15	0.8	SMEC_685+0063D*15**
10	18	19	11	15	0.8	SMEC_106+0063D*15**
3.3	26.5	16.5	7	22.5	0.8	SMEC_335+0063D*23**
4.7	26.5	16.5	7	22.5	0.8	SMEC_475+0063D*23**
6.8	26.5	16.5	7	22.5	0.8	SMEC_685+0063D*23**
10	26.5	17	8.5	22.5	0.8	SMEC_106+0063D*23**
15	26.5	20	11	22.5	0.8	SMEC_156+0063D*23**
4.7	32	18	9	27.5	0.8	SMEC_475+0063D*28**
6.8	32	18	9	27.5	0.8	SMEC_685+0063D*28**
10	32	18	9	27.5	0.8	SMEC_106+0063D*28**

63Vdc (40Vac)						
Cap. µF	W	H	T	P	d	Part number
15	32	18	9	27.5	0.8	SMEC_156+0063D*28**
22	32	22	13	27.5	0.8	SMEC_226+0063D*28**
33	32	24.5	15	27.5	0.8	SMEC_336+0063D*28**
47	32	30	16	27.5	0.8	SMEC_476+0063D*28**

100Vdc (63Vac)						
Cap. µF	W	H	T	P	d	Part number
0.22	10.5	8.5	3.5	7.5	0.6	SMEC_224+0100D*08**
0.33	10.5	9	4	7.5	0.6	SMEC_334+0100D*08**
0.47	10.5	9	4	7.5	0.6	SMEC_474+0100D*08**
0.68	10.5	11	5	7.5	0.6	SMEC_684+0100D*08**
1.0	10.5	12	6	7.5	0.6	SMEC_105+0100D*08**
0.10	13	9	4	10	0.6	SMEC_104+0100D*10**
0.22	13	9	4	10	0.6	SMEC_224+0100D*10**
0.33	13	9	4	10	0.6	SMEC_334+0100D*10**
0.47	13	9	4	10	0.6	SMEC_474+0100D*10**
0.68	13	9	4	10	0.6	SMEC_684+0100D*10**
1.0	13	11	5	10	0.6	SMEC_105+0100D*10**
1.5	13	12	6	10	0.6	SMEC_155+0100D*10**
0.33	18	11	5	15	0.8	SMEC_334+0100D*15**
0.47	18	11	5	15	0.8	SMEC_474+0100D*15**
0.68	18	11	5	15	0.8	SMEC_684+0100D*15**
1.0	18	11	5	15	0.8	SMEC_105+0100D*15**
1.5	18	12	6	15	0.8	SMEC_155+0100D*15**
2.2	18	12	6	15	0.8	SMEC_225+0100D*15**
3.3	18	13.5	7.5	15	0.8	SMEC_335+0100D*15**
4.7	18	14.5	8.5	15	0.8	SMEC_475+0100D*15**

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

* = Lead forming

** = Lead length

SMEC series

■ Dimensions (mm)

100Vdc (63Vac)						
Cap. μF	W	H	T	P	d	Part number
1.5	26.5	15	6	22.5	0.8	SMEC_155+0100D*23**
2.2	26.5	15	6	22.5	0.8	SMEC_225+0100D*23**
3.3	26.5	15	6	22.5	0.8	SMEC_335+0100D*23**
4.7	26.5	16.5	7	22.5	0.8	SMEC_475+0100D*23**
6.8	26.5	19	10	22.5	0.8	SMEC_685+0100D*23**
10	26.5	22	12	22.5	0.8	SMEC_106+0100D*23**
4.7	32	18	9	27.5	0.8	SMEC_475+0100D*28**
6.8	32	18	9	27.5	0.8	SMEC_685+0100D*28**
10	32	20	11	27.5	0.8	SMEC_106+0100D*28**
15	32	20	11	27.5	0.8	SMEC_156+0100D*28**
22	32	25	13	27.5	0.8	SMEC_226+0100D*28**
33	32	30	16	27.5	0.8	SMEC_336+0100D*28**

250Vdc (160Vac)						
Cap. μF	W	H	T	P	d	Part number
0.068	10.5	8.5	3.5	7.5	0.6	SMEC_683+0250D*08**
0.10	10.5	8.5	3.5	7.5	0.6	SMEC_104+0250D*08**
0.15	10.5	9	4	7.5	0.6	SMEC_154+0250D*08**
0.18	10.5	11	5	7.5	0.6	SMEC_184+0250D*08**
0.22	10.5	11	5	7.5	0.6	SMEC_224+0250D*08**
0.27	10.5	12	6	7.5	0.6	SMEC_274+0250D*08**
0.33	10.5	12	6	7.5	0.6	SMEC_334+0250D*08**
0.033	13	9	4	10	0.6	SMEC_333+0250D*10**
0.047	13	9	4	10	0.6	SMEC_473+0250D*10**
0.068	13	9	4	10	0.6	SMEC_683+0250D*10**
0.10	13	9	4	10	0.6	SMEC_104+0250D*10**
0.15	13	9	4	10	0.6	SMEC_154+0250D*10**
0.22	13	11	5	10	0.6	SMEC_224+0250D*10**
0.33	13	11	5	10	0.6	SMEC_334+0250D*10**
0.39	13	12	6	10	0.6	SMEC_394+0250D*10**

250Vdc (160Vac)						
Cap. μF	W	H	T	P	d	Part number
0.47	13	12	6	10	0.6	SMEC_474+0250D*10**
0.10	18	11	5	15	0.8	SMEC_104+0250D*15**
0.15	18	11	5	15	0.8	SMEC_154+0250D*15**
0.22	18	11	5	15	0.8	SMEC_224+0250D*15**
0.33	18	11	5	15	0.8	SMEC_334+0250D*15**
0.47	18	11	5	15	0.8	SMEC_474+0250D*15**
0.68	18	12	6	15	0.8	SMEC_684+0250D*15**
1.0	18	13.5	7.5	15	0.8	SMEC_105+0250D*15**
1.5	18	14.5	8.5	15	0.8	SMEC_155+0250D*15**
0.22	26.5	15	6	22.5	0.8	SMEC_224+0250D*23**
0.47	26.5	15	6	22.5	0.8	SMEC_474+0250D*23**
0.68	26.5	15	6	22.5	0.8	SMEC_684+0250D*23**
1.0	26.5	15	6	22.5	0.8	SMEC_105+0250D*23**
1.5	26.5	16.5	7	22.5	0.8	SMEC_155+0250D*23**
1.8	26.5	16.5	7	22.5	0.8	SMEC_185+0250D*23**
2.2	26.5	17	8.5	22.5	0.8	SMEC_225+0250D*23**
3.3	26.5	20	11	22.5	0.8	SMEC_335+0250D*23**
1.5	32	18	9	27.5	0.8	SMEC_155+0250D*28**
1.8	32	18	9	27.5	0.8	SMEC_185+0250D*28**
2.2	32	18	9	27.5	0.8	SMEC_225+0250D*28**
3.3	32	18	9	27.5	0.8	SMEC_335+0250D*28**
4.7	32	20	11	27.5	0.8	SMEC_475+0250D*28**
6.8	32	22	13	27.5	0.8	SMEC_685+0250D*28**
10	32	24.5	15	27.5	0.8	SMEC_106+0250D*28**

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

* = Lead forming

** = Lead length

SMEC series

■ Dimensions (mm)

400Vdc (200Vac)						
Cap. µF	W	H	T	P	d	Part number
0.022	10.5	8.5	3.5	7.5	0.6	SMEC_223+0400D*08**
0.033	10.5	8.5	3.5	7.5	0.6	SMEC_333+0400D*08**
0.047	10.5	9	4.0	7.5	0.6	SMEC_473+0400D*08**
0.068	10.5	11	5.0	7.5	0.6	SMEC_683+0400D*08**
0.082	10.5	12	6.0	7.5	0.6	SMEC_823+0400D*08**
0.10	10.5	12	6.0	7.5	0.6	SMEC_104+0400D*08**
0.010	13	9	4	10	0.6	SMEC_103+0400D*10**
0.015	13	9	4	10	0.6	SMEC_153+0400D*10**
0.022	13	9	4	10	0.6	SMEC_223+0400D*10**
0.033	13	9	4	10	0.6	SMEC_333+0400D*10**
0.047	13	9	4	10	0.6	SMEC_473+0400D*10**
0.056	13	9	4	10	0.6	SMEC_563+0400D*10**
0.068	13	11	5	10	0.6	SMEC_683+0400D*10**
0.10	13	11	5	10	0.6	SMEC_104+0400D*10**
0.15	13	12	6	10	0.6	SMEC_154+0400D*10**
0.047	18	11	5	15	0.8	SMEC_473+0400D*15**
0.068	18	11	5	15	0.8	SMEC_683+0400D*15**
0.10	18	11	5	15	0.8	SMEC_104+0400D*15**
0.15	18	11	5	15	0.8	SMEC_154+0400D*15**
0.22	18	12	6	15	0.8	SMEC_224+0400D*15**
0.33	18	13.5	7.5	15	0.8	SMEC_334+0400D*15**
0.47	18	14.5	8.5	15	0.8	SMEC_474+0400D*15**
0.56	18	15.5	9.5	15	0.8	SMEC_564+0400D*15**
0.68	18	15.5	9.5	15	0.8	SMEC_684+0400D*15**

400Vdc (200Vac)						
Cap. µF	W	H	T	P	d	Part number
0.22	26.5	15	6	22.5	0.8	SMEC_224+0400D*23**
0.33	26.5	15	6	22.5	0.8	SMEC_334+0400D*23**
0.47	26.5	15	6	22.5	0.8	SMEC_474+0400D*23**
0.68	26.5	16.5	7	22.5	0.8	SMEC_684+0400D*23**
1.0	26.5	19	10	22.5	0.8	SMEC_105+0400D*23**
1.5	26.5	22	12	22.5	0.8	SMEC_155+0400D*23**
0.68	32	18	9	27.5	0.8	SMEC_684+0400D*28**
1.0	32	18	9	27.5	0.8	SMEC_105+0400D*28**
1.5	32	20	11	27.5	0.8	SMEC_155+0400D*28**
1.8	32	20	11	27.5	0.8	SMEC_185+0400D*28**
2.2	32	22	13	27.5	0.8	SMEC_225+0400D*28**
3.3	32	24.5	15	27.5	0.8	SMEC_335+0400D*28**
4.7	32	30	16	27.5	0.8	SMEC_475+0400D*28**
6.8	32	33	18	27.5	0.8	SMEC_685+0400D*28**

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

* = Lead forming

** = Lead length

SMEC series

■ Dimensions (mm)

630Vdc (220Vac)						
Cap. µF	W	H	T	P	d	Part number
0.0022	10.5	8.5	3.5	7.5	0.6	SMEC_222+0630D*08**
0.0047	10.5	8.5	3.5	7.5	0.6	SMEC_472+0630D*08**
0.0068	10.5	8.5	3.5	7.5	0.6	SMEC_682+0630D*08**
0.010	10.5	8.5	3.5	7.5	0.6	SMEC_103+0630D*08**
0.015	10.5	9	4	7.5	0.6	SMEC_153+0630D*08**
0.022	10.5	11	5	7.5	0.6	SMEC_223+0630D*08**
0.033	10.5	12	6	7.5	0.6	SMEC_333+0630D*08**
0.047	10.5	12	6	7.5	0.6	SMEC_473+0630D*08**
0.0047	13	9	4	10	0.6	SMEC_472+0630D*10**
0.0068	13	9	4	10	0.6	SMEC_682+0630D*10**
0.010	13	9	4	10	0.6	SMEC_103+0630D*10**
0.015	13	9	4	10	0.6	SMEC_153+0630D*10**
0.022	13	9	4	10	0.6	SMEC_223+0630D*10**
0.033	13	11	5	10	0.6	SMEC_333+0630D*10**
0.047	13	11	5	10	0.6	SMEC_473+0630D*10**
0.068	13	12	6	10	0.6	SMEC_683+0630D*10**
0.033	18	11	5	15	0.8	SMEC_333+0630D*15**
0.047	18	11	5	15	0.8	SMEC_473+0630D*15**
0.068	18	11	5	15	0.8	SMEC_683+0630D*15**
0.10	18	12	6	15	0.8	SMEC_104+0630D*15**
0.15	18	13.5	7.5	15	0.8	SMEC_154+0630D*15**
0.22	18	15.5	9.5	15	0.8	SMEC_224+0630D*15**
0.33	18	19	11	15	0.8	SMEC_334+0630D*15**

630Vdc (220Vac)						
Cap. µF	W	H	T	P	d	Part number
0.10	26.5	15	6	22.5	0.8	SMEC_104+0630D*23**
0.15	26.5	15	6	22.5	0.8	SMEC_154+0630D*23**
0.22	26.5	16.5	7	22.5	0.8	SMEC_224+0630D*23**
0.33	26.5	16.5	7	22.5	0.8	SMEC_334+0630D*23**
0.47	26.5	17	8.5	22.5	0.8	SMEC_474+0630D*23**
0.68	26.5	22	12	22.5	0.8	SMEC_684+0630D*23**
0.33	32	18	9	27.5	0.8	SMEC_334+0630D*28**
0.47	32	18	9	27.5	0.8	SMEC_474+0630D*28**
0.68	32	20	11	27.5	0.8	SMEC_684+0630D*28**
1.0	32	20	11	27.5	0.8	SMEC_105+0630D*28**

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

* = Lead forming

** = Lead length

SMEC series

■ Dimensions (mm)

1000Vdc (300Vac)						
Cap. µF	W	H	T	P	d	Part number
0.001	10.5	9	4	7.5	0.6	SMEC_102+1000D*08**
0.0015	10.5	9	4	7.5	0.6	SMEC_152+1000D*08**
0.0022	10.5	9	4	7.5	0.6	SMEC_222+1000D*08**
0.0033	10.5	9	4	7.5	0.6	SMEC_332+1000D*08**
0.0047	10.5	9	4	7.5	0.6	SMEC_472+1000D*08**
0.0068	10.5	9	4	7.5	0.6	SMEC_682+1000D*08**
0.01	10.5	11	5	7.5	0.6	SMEC_103+1000D*08**
0.015	10.5	12	6	7.5	0.6	SMEC_153+1000D*08**
0.001	13	9	4	10	0.6	SMEC_102+1000D*10**
0.0015	13	9	4	10	0.6	SMEC_152+1000D*10**
0.0022	13	9	4	10	0.6	SMEC_222+1000D*10**
0.0033	13	9	4	10	0.6	SMEC_332+1000D*10**
0.0047	13	9	4	10	0.6	SMEC_472+1000D*10**
0.0056	13	9	4	10	0.6	SMEC_562+1000D*10**
0.0068	13	9	4	10	0.6	SMEC_682+1000D*10**
0.01	13	9	4	10	0.6	SMEC_103+1000D*10**
0.015	13	11	5	10	0.6	SMEC_153+1000D*10**
0.022	13	11	5	10	0.6	SMEC_223+1000D*10**
0.01	18	11	5	15	0.8	SMEC_103+1000D*15**
0.015	18	11	5	15	0.8	SMEC_153+1000D*15**
0.022	18	11	5	15	0.8	SMEC_223+1000D*15**
0.033	18	12	6	15	0.8	SMEC_333+1000D*15**
0.047	18	12	6	15	0.8	SMEC_473+1000D*15**
0.068	18	13.5	7.5	15	0.8	SMEC_683+1000D*15**
0.1	18	14.5	8.5	15	0.8	SMEC_104+1000D*15**
0.033	26.5	15	6	22.5	0.8	SMEC_333+1000D*23**
0.047	26.5	15	6	22.5	0.8	SMEC_473+1000D*23**
0.068	26.5	15	6	22.5	0.8	SMEC_683+1000D*23**
0.1	26.5	15	6	22.5	0.8	SMEC_104+1000D*23**
0.15	26.5	16.5	7	22.5	0.8	SMEC_154+1000D*23**
0.22	26.5	17	8.5	22.5	0.8	SMEC_224+1000D*23**
0.33	26.5	20	11	22.5	0.8	SMEC_334+1000D*23**

1000Vdc (300Vac)						
Cap. µF	W	H	T	P	d	Part number
0.15	32	18	9	27.5	0.8	SMEC_154+1000D*28**
0.22	32	18	9	27.5	0.8	SMEC_224+1000D*28**
0.33	31.5	19.5	10.8	27.5	0.8	SMEC_334+1000D*28**
0.47	31.5	19.5	10.8	27.5	0.8	SMEC_474+1000D*28**
0.68	31	25	14	27.5	0.8	SMEC_684+1000D*28**
1.0	31	29	15.5	27.5	0.8	SMEC_105+1000D*28**
1.5	32	37	22	27.5	0.8	SMEC_155+1000D*28**

+	=	Capacitance tolerance: K=±10% , J=±5%
*	=	Lead forming
**	=	Lead length

■ Specifications (GB/T 7332)

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℃
損耗因素 Dissipation Factor	0.01 (1.0%) Max.	1KHz, 1Vrms Max. at 25℃
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 ≤ 0.33μF IR ≥ 7,500MΩ, C_R >0.33μF IR ≥ 2,500s	100Vdc, 60sec / 20℃
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) △C/C : ≤ ±2% of the initial value (3) DF (tanδ) : ≤ 0.005 of increased value	焊接溫度 Solder temperature: 260±5℃ 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℃ 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℃ 上限溫度 Upper category temperature: 85℃ 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

SMEC series

■ Specifications (GB/T 7332)

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) ▵C/C : ≤ ±5% of the initial value (3) DF (tanδ) : ≤ 0.008 of increased value (4) IR : ≥ 50% of the applicable limits (5) Voltage proof : Normal	乾熱 Dry Heat 上限溫度 Upper Temperature: 85℃ 持續時間 Lower Duration: 16Hrs 寒冷 Cold 下限溫度 Temperature: -40℃ 持續時間 Duration: 2Hrs
濕熱穩態 Damp Heat Steady State	(1) Appearance : No visible damage (2) ▵C/C : ≤ ±5% of the Initial value (3) DF (tanδ) : ≤ 0.005 of increased value (4) IR : ≥ 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) ▵C/C : ≤ ±8% of the initial value (3) DF (tanδ) : ≤ 0.005 of increased value (4) IR : ≥ 50% of the applicable limits	實驗電壓 U_R x 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) ▵C/C : ≤ ±5% of the initial value (3) DF (tanδ) : ≤ 0.005 of increased value (4) IR : ≥ 50% of the applicable limits	實驗電壓 Test voltage : U_R ±5% 充放電 Charge and discharge: 1/time/sec 重複次數 Repeated for 10000 cycles

■ Mark

Pitch 7.5mm	Pitch ≥10mm
1. WDC is a registered trademark of WINDAY	2. Capacitance: 105 indicates 1.0μF or 1000nF
3. Capacitors Tolerance: K=±10%	4. Rated Voltage: 250Vdc, Indicates 250
5. E or ME for Metallized polyester film capacitor	

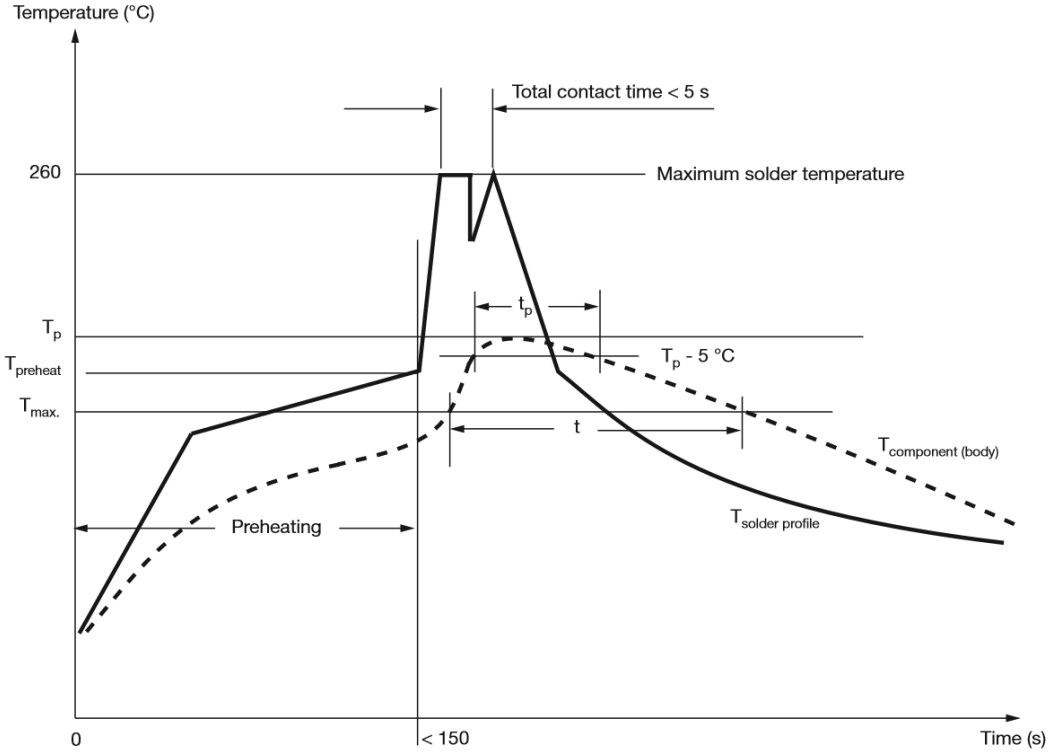
■ Soldering Guidelines for Film Capacitors

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



Tp : Peak temperature of the component body (top)

Tmax : 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	20/22.5 mm	27.5 mm	31.5 mm	37.5 mm
SMEC	--	(2),(4)	(1),(3)	(1),(3)	(1),(3)	(1),(3)	(1),(3)	(1),(3)

(1) No risk

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

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

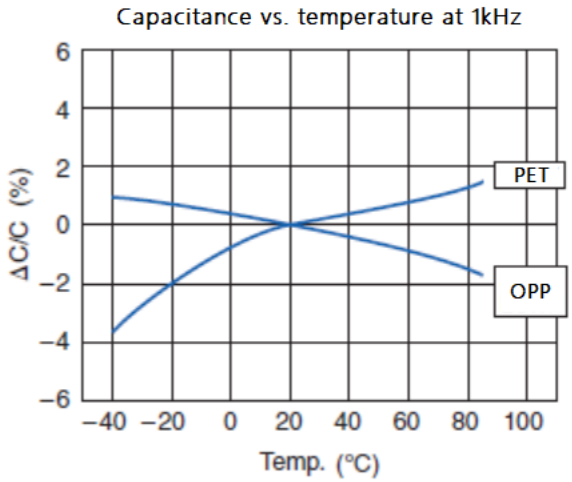
(4) Temperature is measured at the body top and must be kept as follows:

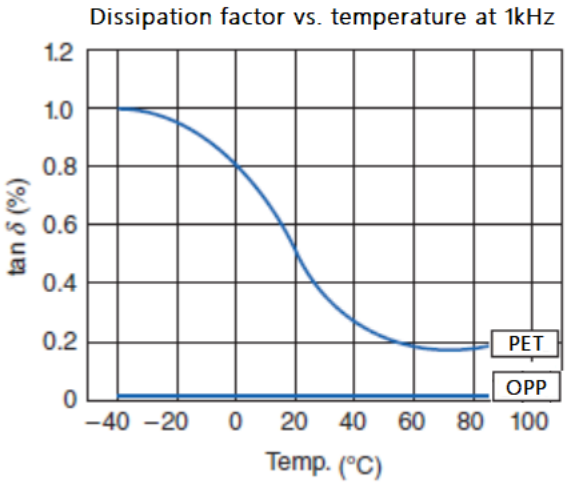
During preheating: Tmax. ≤ 125 °C

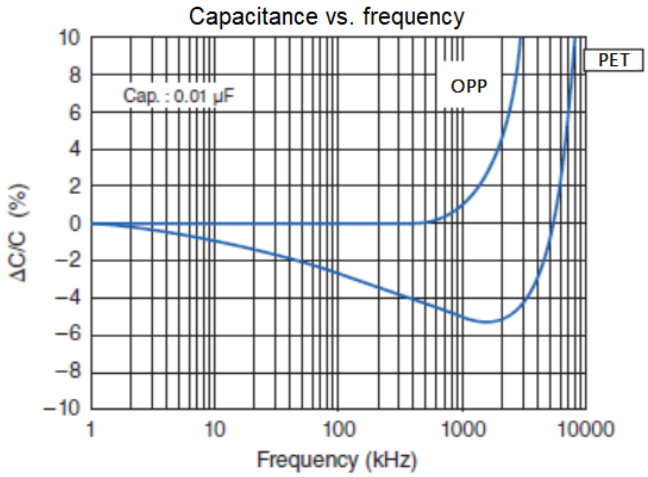
During soldering: Tp ≤ 135 °C, tp ≤ 30 s, t ≤ 50 s

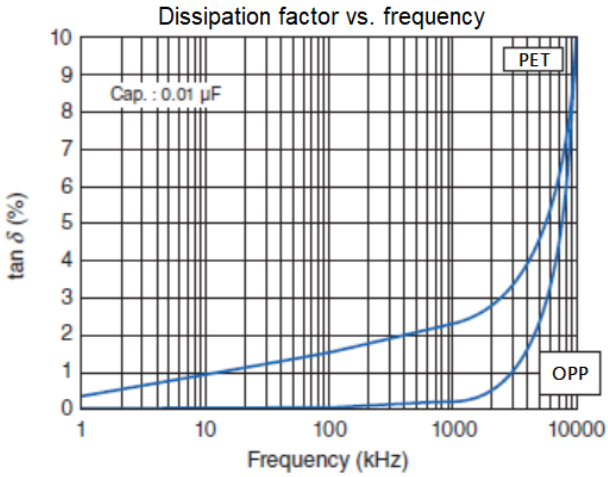
SMEC series

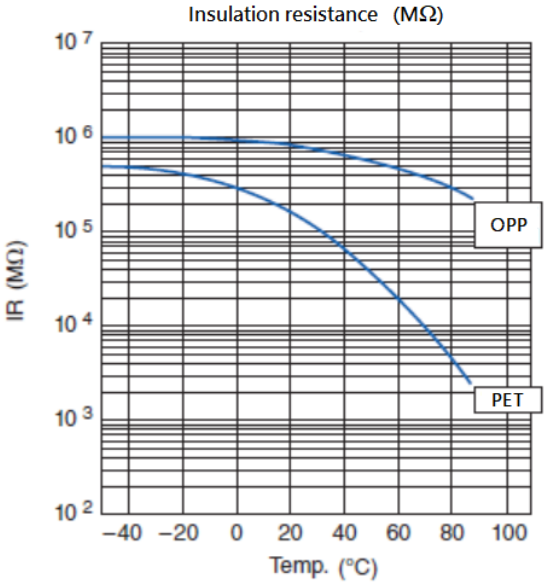
■ Typical graphs





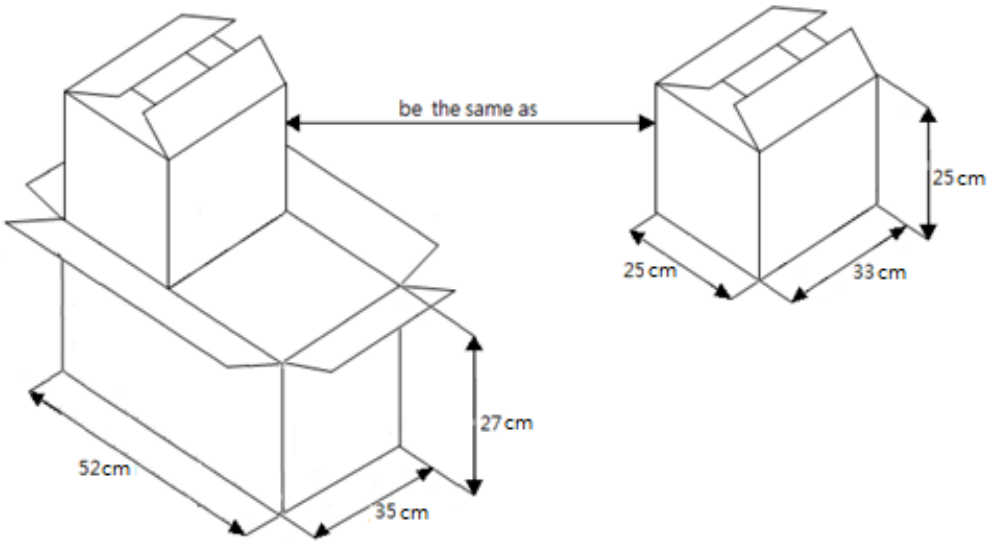






PET :	Metallized Polyester film capacitor
OPP :	Metallized Polypropylene film capacitor

■ 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)
13 * 12 * 6	500	5000	10000
18 * 12 * 6	500	5000	10000
18 * 13.5 * 7.5	300	3000	6000
18 * 15.5 * 9.5	300	3000	6000
18 * 19 * 10.8	200	2000	4000
26.5 * 15 * 6	200	2000	4000
26.5 * 17 * 8.5	200	2000	4000
26.5 * 19 * 10	200	1600	3200
26 * 20 * 11	200	1400	2800
26 * 21.5 * 12	200	1200	2400
26.5 * 23 * 13	200	1200	2400

■ 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 ℃, humidity less than 50% of the state of storage for one year.