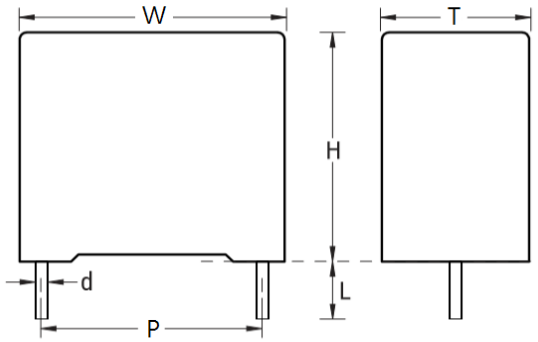
SMTP series (Segmented design)

■ Outline Drawing



■ Typical Applications

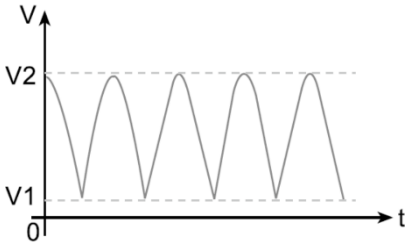
As intermediate circuit capacitors for SMPS,
Electronic ballast, Inverter
(i.e DC-Link, DC-filter and P.F.C)

■ Features

Metalized polypropylene film,
Low loss at high frequency
Small inherent temperature rise
Plastic case (UL94v-0), Epoxy resin sealing.

■ Note

The SMTP series is only recommended to use in DC-Filter or DC blocking circuits, It means the voltage applied to the capacitor s must be unidirectional ripple voltage. The typical voltage curve is as following reference.



$V1 \geq 0, V2 \leq UR, Vrms = (V2 - V1) \div \sqrt{2}, Irms - 2\pi f \times C \times (V2 - V1) \div \sqrt{2}$

■ Specifications

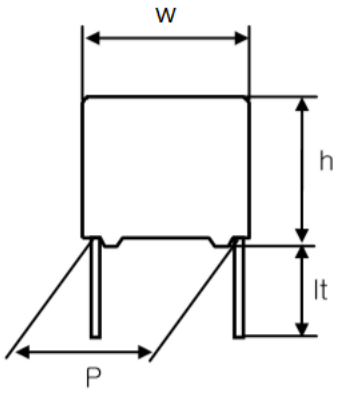
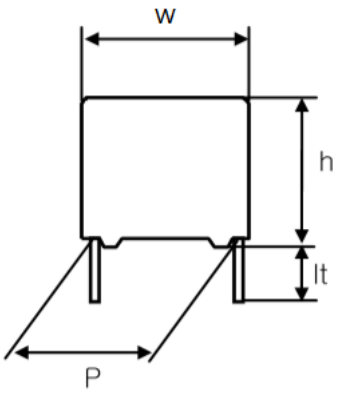
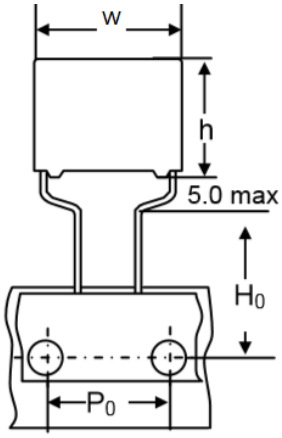
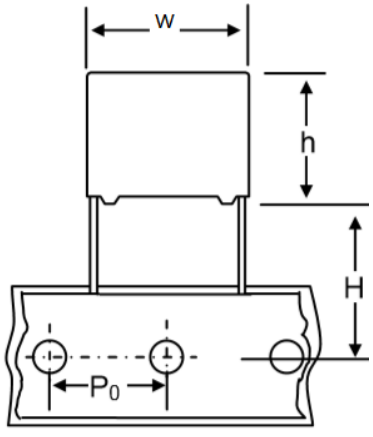
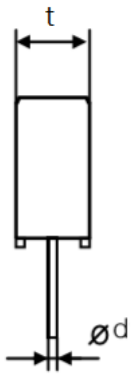
Reference Standard	GB/T 10190 (IEC 60384-16)		
Climatic Category	40/105/21		
Rated Temperature	85℃		
Operating Temperature Range	-40℃~+105℃ (+85℃ to +105℃: decreasing factor 1.25% per ℃ for U_R)		
Capacitance Range	0.022μF ~ 22μF		
Rated (DC) Voltage	450Vdc	520Vdc	630Vdc
Capacitance Tolerance	±5%(J)、±10%(K) 、±20%(M)		
Voltage Proof	1.6U_R, 5s (DC)		
Dissipation Factor	≤ 0.1% (25℃, 1kHz)		
Insulation Resistance	U_R>100V	C_R ≤ 0.33μF IR ≥ 25,000MΩ C_R >0.33μF IR ≥ 7,500s (20℃, 100V, 1min)	

SMTP series (Segmented design)

■ Product code system

SMTP	D	105	K	0450	D	B	10	15
Type	Internal use	Capacitance	Tolerance	Rated Voltage	Voltage	Lead forming	Lead Pitch	Lead Length
SMTP= Metallized Polypropylene Capacitor Segmented design (Boxed)	--	105 =1000nF =1.0μF	J=±5% K=±10% M=±20%	0450=450V 0520=520V 0630=630V	D=DC	Shown as Table I	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			--

SMTP series (Segmented design) *Miniature Version*

■ Dimensions (mm)

450Vdc

Cap. μF	W	H	T	P	d	Part number
0.12	13	9	4	10	0.6	SMTP_124+0450D*10**
0.15	13	9	4	10	0.6	SMTP_154+0450D*10**
0.18	13	11	5	10	0.6	SMTP_184+0450D*10**
0.22	13	11	5	10	0.6	SMTP_224+0450D*10**
0.27	13	12	6	10	0.6	SMTP_274+0450D*10**
0.33	13	12	6	10	0.6	SMTP_334+0450D*10**
0.39	13	13	7	10	0.6	SMTP_394+0450D*10**
0.47	13	13	7	10	0.6	SMTP_474+0450D*10**
0.56	13	14	8	10	0.6	SMTP_564+0450D*10**
0.68	13	14	8	10	0.6	SMTP_684+0450D*10**
0.22	18	11	5	15	0.8	SMTP_224+0450D*15**
0.33	18	11	5	15	0.8	SMTP_334+0450D*15**
0.39	18	11	5	15	0.8	SMTP_394+0450D*15**
0.47	18	11	5	15	0.8	SMTP_474+0450D*15**
0.56	18	12	6	15	0.8	SMTP_564+0450D*15**
0.68	18	12	7	15	0.8	SMTP_684+0450D*15**
0.82	18	12	7	15	0.8	SMTP_824+0450D*15**
1.0	18	13.5	7.5	15	0.8	SMTP_105+0450D*15**
1.2	18	14.5	8.5	15	0.8	SMTP_125+0450D*15**
1.5	18	16	10	15	0.8	SMTP_155+0450D*15**
1.8	18	16	10	15	0.8	SMTP_185+0450D*15**
2.2	18	19	10.8	15	0.8	SMTP_225+0450D*15**
1.0	26.5	15	6	22.5	0.8	SMTP_105+0450D*23**
1.2	26.5	15	6	22.5	0.8	SMTP_125+0450D*23**
1.5	26.5	16	7	22.5	0.8	SMTP_155+0450D*23**
1.8	26.5	16	7	22.5	0.8	SMTP_185+0450D*23**
2.2	26.5	17	8.5	22.5	0.8	SMTP_225+0450D*23**
2.7	26.5	17	8.5	22.5	0.8	SMTP_275+0450D*23**
3.3	26.5	19	10	22.5	0.8	SMTP_335+0450D*23**
3.9	26.5	19	10	22.5	0.8	SMTP_395+0450D*23**
4.7	26.5	20	11	22.5	0.8	SMTP_425+0450D*23**

450Vdc

Cap. μF	W	H	T	P	d	Part number
5.6	26.5	22	12	22.5	0.8	SMTP_565+0450D*23**
6.8	26.5	24.5	15.5	22.5	0.8	SMTP_685+0450D*23**
8.2	26.5	24.5	15.5	22.5	0.8	SMTP_825+0450D*23**
3.3	32	18	9	27.5	0.8	SMTP_335+0450D*28**
3.9	32	18	9	27.5	0.8	SMTP_395+0450D*28**
4.7	32	20	11	27.5	0.8	SMTP_475+0450D*28**
5.6	32	20	11	27.5	0.8	SMTP_565+0450D*28**
6.8	32	22	13	27.5	0.8	SMTP_685+0450D*28**
8.2	32	24.5	15	27.5	0.8	SMTP_825+0450D*28**
10	32	24.5	15	27.5	0.8	SMTP_106+0450D*28**
12	32	28	17	27.5	0.8	SMTP_126+0450D*28**
15	32	33	18	27.5	0.8	SMTP_156+0450D*28**
18	32	37	22	27.5	0.8	SMTP_186+0450D*28**
22	32	37	22	27.5	0.8	SMTP_226+0450D*28**

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

SMTP series (Segmented design) *Miniature Version*

■ Dimensions (mm)

520Vdc

Cap. μF	W	H	T	P	d	Part number
0.082	13	9	4	10	0.6	SMTP_823+0520D*10**
0.10	13	9	4	10	0.6	SMTP_104+0520D*10**
0.12	13	11	5	10	0.6	SMTP_124+0520D*10**
0.15	13	11	5	10	0.6	SMTP_154+0520D*10**
0.18	13	12	6	10	0.6	SMTP_184+0520D*10**
0.22	13	12	6	10	0.6	SMTP_224+0520D*10**
0.27	13	13	7	10	0.6	SMTP_274+0520D*10**
0.33	13	13	7	10	0.6	SMTP_334+0520D*10**
0.39	13	14	8	10	0.6	SMTP_394+0520D*10**
0.47	13	14	8	10	0.6	SMTP_474+0520D*10**
0.27	18	11	5	15	0.8	SMTP_274+0520D*15**
0.33	18	11	5	15	0.8	SMTP_334+0520D*15**
0.39	18	12	6	15	0.8	SMTP_394+0520D*15**
0.47	18	12	6	15	0.8	SMTP_474+0520D*15**
0.56	18	13	7	15	0.8	SMTP_564+0520D*15**
0.68	18	13.5	7.5	15	0.8	SMTP_684+0520D*15**
0.82	18	14.5	8.5	15	0.8	SMTP_824+0520D*15**
1.0	18	14.5	8.5	15	0.8	SMTP_105+0520D*15**
1.2	18	16	10	15	0.8	SMTP_125+0520D*15**
1.5	18	19	10.8	15	0.8	SMTP_155+0520D*15**
0.68	26.5	15	6	22.5	0.8	SMTP_684+0520D*23**
0.82	26.5	15	6	22.5	0.8	SMTP_824+0520D*23**
1.0	26.5	16	7	22.5	0.8	SMTP_105+0520D*23**
1.2	26.5	16	7	22.5	0.8	SMTP_125+0520D*23**
1.5	26.5	17	8.5	22.5	0.8	SMTP_155+0520D*23**
1.8	26.5	17	8.5	22.5	0.8	SMTP_185+0520D*23**
2.2	26.5	19	10	22.5	0.8	SMTP_225+0520D*23**
2.7	26.5	19	10	22.5	0.8	SMTP_275+0520D*23**
3.3	26.5	20	11	22.5	0.8	SMTP_335+0520D*23**
3.9	26.5	22	12	22.5	0.8	SMTP_395+0520D*23**
4.7	26.5	24.5	15.5	22.5	0.8	SMTP_475+0520D*23**

520Vdc

Cap. μF	W	H	T	P	d	Part number
5.6	26.5	24.5	15.5	22.5	0.8	SMTP_565+0520D*23**
2.2	32	18	9	27.5	0.8	SMTP_225+0520D*28**
2.7	32	18	9	27.5	0.8	SMTP_275+0520D*28**
3.3	32	20	11	27.5	0.8	SMTP_335+0520D*28**
3.9	32	20	11	27.5	0.8	SMTP_395+0520D*28**
4.7	32	22	13	27.5	0.8	SMTP_475+0520D*28**
5.6	32	22	13	27.5	0.8	SMTP_565+0520D*28**
6.8	32	24.5	15	27.5	0.8	SMTP_685+0520D*28**
8.2	32	24.5	15	27.5	0.8	SMTP_825+0520D*28**
10	32	28	17	27.5	0.8	SMTP_106+0520D*28**
12	32	33	18	27.5	0.8	SMTP_126+0520D*28**
15	32	37	22	27.5	0.8	SMTP_156+0520D*28**
18	32	37	22	27.5	0.8	SMTP_186+0520D*28**

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

SMTP series (Segmented design) *Miniature Version*

■ Dimensions (mm)

630Vdc						
Cap. μF	W	H	T	P	d	Part number
0.056	13	9	4	10	0.6	SMTP_563+0630D*10**
0.068	13	9	4	10	0.6	SMTP_683+0630D*10**
0.082	13	11	5	10	0.6	SMTP_823+0630D*10**
0.10	13	11	5	10	0.6	SMTP_104+0630D*10**
0.12	13	12	6	10	0.6	SMTP_124+0630D*10**
0.15	13	12	6	10	0.6	SMTP_154+0630D*10**
0.18	13	13	7	10	0.6	SMTP_184+0630D*10**
0.22	13	13	7	10	0.6	SMTP_224+0630D*10**
0.27	13	14	8	10	0.6	SMTP_274+0630D*10**
0.33	13	14	8	10	0.6	SMTP_334+0630D*10**
0.18	18	11	5	15	0.8	SMTP_184+0630D*15**
0.22	18	11	5	15	0.8	SMTP_224+0630D*15**
0.27	18	12	6	15	0.8	SMTP_274+0630D*15**
0.33	18	12	6	15	0.8	SMTP_334+0630D*15**
0.39	18	12	7	15	0.8	SMTP_394+0630D*15**
0.47	18	13.5	7.5	15	0.8	SMTP_474+0630D*15**
0.56	18	14.5	8.5	15	0.8	SMTP_564+0630D*15**
0.68	18	14.5	8.5	15	0.8	SMTP_684+0630D*15**
0.82	18	16	10	15	0.8	SMTP_824+0630D*15**
1.0	18	16	10	15	0.8	SMTP_105+0630D*15**
1.2	18	19	10.8	15	0.8	SMTP_125+0630D*15**
0.47	26.5	15	6	22.5	0.8	SMTP_474+0630D*23**
0.56	26.5	15	6	22.5	0.8	SMTP_564+0630D*23**
0.68	26.5	16	7	22.5	0.8	SMTP_684+0630D*23**
0.82	26.5	16	7	22.5	0.8	SMTP_824+0630D*23**
1.0	26.5	17	8.5	22.5	0.8	SMTP_105+0630D*23**
1.2	26.5	17	8.5	22.5	0.8	SMTP_125+0630D*23**
1.5	26.5	19	10	22.5	0.8	SMTP_155+0630D*23**
1.8	26.5	19	10	22.5	0.8	SMTP_185+0630D*23**
2.2	26.5	20	11	22.5	0.8	SMTP_225+0630D*23**
2.7	26.5	22	12	22.5	0.8	SMTP_275+0630D*23**

630Vdc						
Cap. μF	W	H	T	P	d	Part number
3.3	26.5	24.5	15.5	22.5	0.8	SMTP_335+0630D*23**
3.9	26.5	24.5	15.5	22.5	0.8	SMTP_395+0630D*23**
1.8	32	18	9	27.5	0.8	SMTP_185+0630D*28**
2.2	32	20	11	27.5	0.8	SMTP_225+0630D*28**
2.7	32	20	11	27.5	0.8	SMTP_275+0630D*28**
3.3	32	22	13	27.5	0.8	SMTP_335+0630D*28**
3.9	32	22	13	27.5	0.8	SMTP_395+0630D*28**
4.7	32	24.5	15	27.5	0.8	SMTP_475+0630D*28**
5.6	32	28	17	27.5	0.8	SMTP_565+0630D*28**
6.8	32	29	19	27.5	0.8	SMTP_685+0630D*28**
8.2	32	29	19	27.5	0.8	SMTP_825+0630D*28**
10	32	37	22	27.5	0.8	SMTP_106+0630D*28**
12	32	37	22	27.5	0.8	SMTP_126+0630D*28**

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

SMTP series (Segmented design)

■ Dimensions (mm)

450Vdc						
Cap. µF	W	H	T	P	d	Part number
0.068	13	9	4	10	0.6	SMTP_683+0450D*10**
0.082	13	9	4	10	0.6	SMTP_823+0450D*10**
0.10	13	11	5	10	0.6	SMTP_104+0450D*10**
0.12	13	11	5	10	0.6	SMTP_124+0450D*10**
0.15	13	12	6	10	0.6	SMTP_154+0450D*10**
0.18	13	12	6	10	0.6	SMTP_184+0450D*10**
0.22	13	13	7	10	0.6	SMTP_224+0450D*10**
0.27	13	13	7	10	0.6	SMTP_274+0450D*10**
0.33	13	14	8	10	0.6	SMTP_334+0450D*10**
0.10	18	9.5	5	15	0.8	SMTP_104+0450D*15**
0.12	18	11	5	15	0.8	SMTP_124+0450D*15**
0.15	18	11	5	15	0.8	SMTP_154+0450D*15**
0.18	18	11	5	15	0.8	SMTP_184+0450D*15**
0.22	18	11	5	15	0.8	SMTP_224+0450D*15**
0.27	18	12	6	15	0.8	SMTP_274+0450D*15**
0.33	18	12	6	15	0.8	SMTP_334+0450D*15**
0.39	18	13.5	7.5	15	0.8	SMTP_394+0450D*15**
0.47	18	13.5	7.5	15	0.8	SMTP_474+0450D*15**
0.56	18	13.5	7.5	15	0.8	SMTP_564+0450D*15**
0.68	18	16	10	15	0.8	SMTP_684+0450D*15**
0.82	18	16	10	15	0.8	SMTP_824+0450D*15**
1.0	18	19	10.8	15	0.8	SMTP_105+0450D*15**
0.27	26.5	15	6	22.5	0.8	SMTP_274+0450D*23**
0.33	26.5	15	6	22.5	0.8	SMTP_334+0450D*23**
0.39	26.5	15	6	22.5	0.8	SMTP_394+0450D*23**
0.47	26.5	15	6	22.5	0.8	SMTP_474+0450D*23**
0.56	26.5	16	7	22.5	0.8	SMTP_564+0450D*23**
0.68	26.5	16	7	22.5	0.8	SMTP_684+0450D*23**
0.82	26.5	16	7	22.5	0.8	SMTP_824+0450D*23**
1.0	26.5	17	8.5	22.5	0.8	SMTP_105+0450D*23**

450Vdc						
Cap. µF	W	H	T	P	d	Part number
1.2	26.5	19	10	22.5	0.8	SMTP_125+0450D*23**
1.5	26.5	19	10	22.5	0.8	SMTP_155+0450D*23**
1.8	26.5	22	12	22.5	0.8	SMTP_185+0450D*23**
0.68	32	18	9	27.5	0.8	SMTP_684+0450D*28**
0.82	32	18	9	27.5	0.8	SMTP_824+0450D*28**
1.0	32	18	9	27.5	0.8	SMTP_105+0450D*28**
1.2	32	18	9	27.5	0.8	SMTP_125+0450D*28**
1.5	32	18	9	27.5	0.8	SMTP_155+0450D*28**
1.8	32	20	11	27.5	0.8	SMTP_185+0450D*28**
2.2	32	20	11	27.5	0.8	SMTP_225+0450D*28**
2.7	32	22	13	27.5	0.8	SMTP_275+0450D*28**
3.3	32	22	13	27.5	0.8	SMTP_335+0450D*28**
3.9	32	24.5	15	27.5	0.8	SMTP_395+0450D*28**
4.7	32	33	18	27.5	0.8	SMTP_475+0450D*28**
5.6	32	33	18	27.5	0.8	SMTP_565+0450D*28**
6.8	32	33	18	27.5	0.8	SMTP_685+0450D*28**
8.2	32	33	18	27.5	0.8	SMTP_825+0450D*28**

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

SMTP series (Segmented design)

■ Dimensions (mm)

520Vdc						
Cap. μF	W	H	T	P	d	Part number
0.047	13	9	4	10	0.6	SMTP_473+0520D*10**
0.056	13	9	4	10	0.6	SMTP_563+0520D*10**
0.068	13	9	4	10	0.6	SMTP_683+0520D*10**
0.082	13	11	5	10	0.6	SMTP_823+0520D*10**
0.10	13	11	5	10	0.6	SMTP_104+0520D*10**
0.12	13	12	6	10	0.6	SMTP_124+0520D*10**
0.15	13	12	6	10	0.6	SMTP_154+0520D*10**
0.18	13	13	7	10	0.6	SMTP_184+0520D*10**
0.22	13	13	7	10	0.6	SMTP_224+0520D*10**
0.27	13	14	8	10	0.6	SMTP_274+0520D*10**
0.033	18	11	5	15	0.8	SMTP_333+0520D*15**
0.039	18	11	5	15	0.8	SMTP_333+0520D*15**
0.047	18	11	5	15	0.8	SMTP_473+0520D*15**
0.056	18	11	5	15	0.8	SMTP_563+0520D*15**
0.068	18	11	5	15	0.8	SMTP_683+0520D*15**
0.082	18	11	5	15	0.8	SMTP_823+0520D*15**
0.10	18	11	5	15	0.8	SMTP_104+0520D*15**
0.12	18	11	5	15	0.8	SMTP_124+0520D*15**
0.15	18	11	5	15	0.8	SMTP_154+0520D*15**
0.18	18	11	5	15	0.8	SMTP_184+0520D*15**
0.22	18	12	6	15	0.8	SMTP_224+0520D*15**
0.27	18	12	6	15	0.8	SMTP_274+0520D*15**
0.33	18	13.5	7.5	15	0.8	MTP3384+0520D*15**
0.39	18	13.5	7.5	15	0.8	SMTP_394+0520D*15**
0.47	18	14.5	8.5	15	0.8	SMTP_474+0520D*15**
0.56	18	16	10	15	0.8	SMTP_564+0520D*15**
0.68	18	16	10	15	0.8	SMTP_684+0520D*15**
0.82	18	19	10.8	15	0.8	SMTP_824+0520D*15**
1.0	18	19	10.8	15	0.8	SMTP_105+0520D*15**
0.18	26.5	15	6	22.5	0.6	SMTP_184+0520D*23**

520Vdc						
Cap. μF	W	H	T	P	d	Part number
0.22	26.5	15	6	22.5	0.6	SMTP_224+0520D*23**
0.27	26.5	15	6	22.5	0.6	SMTP_274+0520D*23**
0.33	26.5	15	6	22.5	0.6	SMTP_334+0520D*23**
0.39	26.5	15	6	22.5	0.6	SMTP_394+0520D*23**
0.47	26.5	15	6	22.5	0.6	SMTP_474+0520D*23**
0.56	26.5	16	7	22.5	0.6	SMTP_564+0520D*23**
0.68	26.5	16	7	22.5	0.6	SMTP_684+0520D*23**
0.82	26.5	17	8.5	22.5	0.8	SMTP_824+0520D*23**
1.0	26.5	19	10	22.5	0.8	SMTP_105+0520D*23**
1.2	26.5	19	10	22.5	0.8	SMTP_125+0520D*23**
1.5	26.5	22	12	22.5	0.8	SMTP_155+0520D*23**
1.8	26.5	22	12	22.5	0.8	SMTP_185+0520D*23**
0.27	32	18	9	27.5	0.8	SMTP_274+0520D*28**
0.33	32	18	9	27.5	0.8	SMTP_334+0520D*28**
0.39	32	18	9	27.5	0.8	SMTP_394+0520D*28**
0.47	32	18	9	27.5	0.8	SMTP_474+0520D*28**
0.56	32	18	9	27.5	0.8	SMTP_564+0520D*28**
0.68	32	18	9	27.5	0.8	SMTP_684+0520D*28**
0.82	32	18	9	27.5	0.8	SMTP_824+0520D*28**
1.0	32	18	9	27.5	0.8	SMTP_105+0520D*28**
1.2	32	18	9	27.5	0.8	SMTP_125+0520D*28**
1.5	32	20	11	27.5	0.8	SMTP_155+0520D*28**
1.8	32	20	11	27.5	0.8	SMTP_185+0520D*28**
2.2	32	22	13	27.5	0.8	SMTP_225+0520D*28**
2.7	32	24.5	15	27.5	0.8	SMTP_275+0520D*28**
3.3	32	28	14	27.5	0.8	SMTP_335+0520D*28**
3.9	32	28	14	27.5	0.8	SMTP_395+0520D*28**
4.7	32	33	18	27.5	0.8	SMTP_475+0520D*28**
5.6	32	33	18	27.5	0.8	SMTP_565+0520D*28**
6.8	32	33	18	27.5	0.8	SMTP_685+0520D*28**

SMTP series (Segmented design)

■ Dimensions (mm)

630Vdc						
Cap. μF	W	H	T	P	d	Part number
0.022	13	9	4	10	0.6	SMTP_223+0630D*10**
0.027	13	9	4	10	0.6	SMTP_273+0630D*10**
0.033	13	9	4	10	0.6	SMTP_333+0630D*10**
0.039	13	9	4	10	0.6	SMTP_393+0630D*10**
0.047	13	11	5	10	0.6	SMTP_473+0630D*10**
0.056	13	11	5	10	0.6	SMTP_563+0630D*10**
0.068	13	11	5	10	0.6	SMTP_683+0630D*10**
0.082	13	12	6	10	0.6	SMTP_823+0630D*10**
0.10	13	12	6	10	0.6	SMTP_104+0630D*10**
0.12	13	13	7	10	0.6	SMTP_124+0630D*10**
0.15	13	13	7	10	0.6	SMTP_154+0630D*10**
0.18	13	14	8	10	0.6	SMTP_184+0630D*10**
0.068	18	11	5	15	0.8	SMTP_683+0630D*15**
0.082	18	11	5	15	0.8	SMTP_823+0630D*15**
0.10	18	11	5	15	0.8	SMTP_104+0630D*15**
0.12	18	11	5	15	0.8	SMTP_124+0630D*15**
0.15	18	12	6	15	0.8	SMTP_154+0630D*15**
0.18	18	12	6	15	0.8	SMTP_184+0630D*15**
0.22	18	13.5	7.5	15	0.8	SMTP_224+0630D*15**
0.27	18	13.5	7.5	15	0.8	SMTP_274+0630D*15**
0.33	18	14.5	8.5	15	0.8	SMTP_334+0630D*15**
0.39	18	16	10	15	0.8	SMTP_394+0630D*15**
0.47	18	16	10	15	0.8	SMTP_474+0630D*15**
0.56	18	19	10.8	15	0.8	SMTP_564+0630D*15**
0.68	18	19	10.8	15	0.8	SMTP_684+0630D*15**
0.15	26.5	15	6	22.5	0.6	SMTP_154+0630D*23**
0.18	26.5	15	6	22.5	0.6	SMTP_184+0630D*23**
0.22	26.5	15	6	22.5	0.6	SMTP_224+0630D*23**
0.27	26.5	15	6	22.5	0.6	SMTP_274+0630D*23**
0.33	26.5	15	6	22.5	0.6	SMTP_334+0630D*23**

630Vdc						
Cap. μF	W	H	T	P	d	Part number
0.39	26.5	16	7	22.5	0.6	SMTP_394+0630D*23**
0.47	26.5	16	7	22.5	0.6	SMTP_474+0630D*23**
0.56	26.5	17	8.5	22.5	0.8	SMTP_564+0630D*23**
0.68	26.5	17	8.5	22.5	0.8	SMTP_684+0630D*23**
0.82	26.5	19	10	22.5	0.8	SMTP_824+0630D*23**
1.0	26.5	19	10	22.5	0.8	SMTP_105+0630D*23**
1.2	26.5	22	12	22.5	0.8	SMTP_125+0630D*23**
0.27	32	18	9	27.5	0.8	SMTP_274+0630D*28**
0.33	32	18	9	27.5	0.8	SMTP_334+0630D*28**
0.39	32	18	9	27.5	0.8	SMTP_394+0630D*28**
0.47	32	18	9	27.5	0.8	SMTP_474+0630D*28**
0.56	32	18	9	27.5	0.8	SMTP_564+0630D*28**
0.68	32	18	9	27.5	0.8	SMTP_684+0630D*28**
0.82	32	18	9	27.5	0.8	SMTP_824+0630D*28**
1.0	32	20	11	27.5	0.8	SMTP_105+0630D*28**
1.2	32	20	11	27.5	0.8	SMTP_125+0630D*28**
1.5	32	22	13	27.5	0.8	SMTP_155+0630D*28**
1.8	32	22	13	27.5	0.8	SMTP_185+0630D*28**
2.2	32	24.5	15	27.5	0.8	SMTP_225+0630D*28**
2.7	32	28	14	27.5	0.8	SMTP_275+0630D*28**
3.3	32	33	18	27.5	0.8	SMTP_335+0630D*28**
3.9	32	33	18	27.5	0.8	SMTP_395+0630D*28**

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

SMTP series (Segmented design)

■ 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℃
損耗因素 Dissipation Factor	0.001 (0.1%) 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 ≥ 25,000MΩ, C_R >0.33μF IR ≥ 7,500s	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 : ≤ ±3% of the initial value (3) DF (tanδ) : ≤ 0.004 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

SMTP series (Segmented design)

■ 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) ▵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	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) : ≤ 0.002 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 : ≤ ±5% of the initial value (3) DF (tanδ) : ≤ 0.004 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 : Rated (DC) voltage 充放電 Charge and discharge: 0.5sec/time 重複次數 Repeated for 10000 cycles

■ Mark

Marking

1.	WDC is a registered trademark of WINDAY	2.	Capacitance: 105 indicates 1.0μF or 1000nF
3.	Capacitors Tolerance: K=±10%	4.	Rated Voltage: 450Vdc, Indicates 450
5.	TP for Segmented design Metallized polypropylene film		

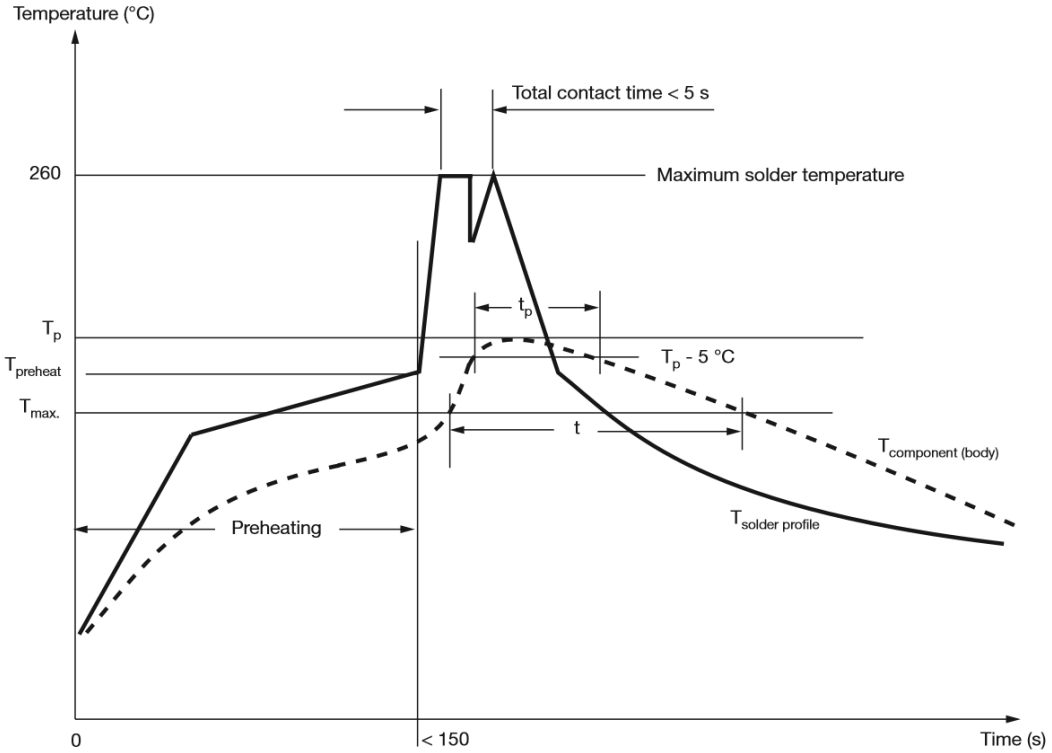
■ Soldering Guidelines for Film Capacitors

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
SMTP	--	--	(2),(5)	(1),(6)	(1),(6)	(1),(6)	--	--

(1) No risk

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

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

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

During preheating: Tmax. ≤ 100 °C

During soldering: Tp ≤ 110 °C, tp ≤ 20 s, t ≤ 30 s

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

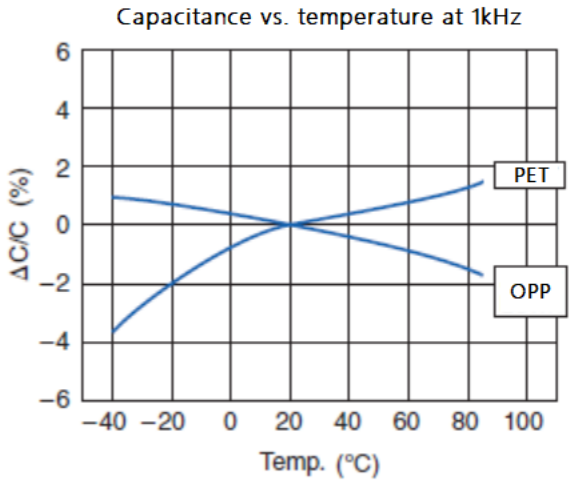
During preheating: Tmax. ≤ 110 °C

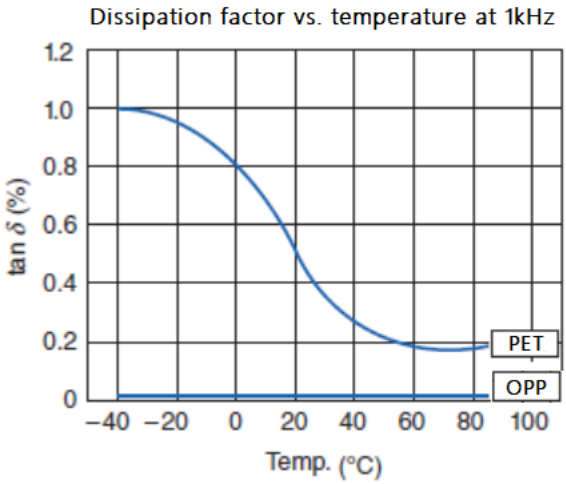
During soldering: Tp ≤ 120 °C, tp ≤ 20 s, t ≤ 30 s

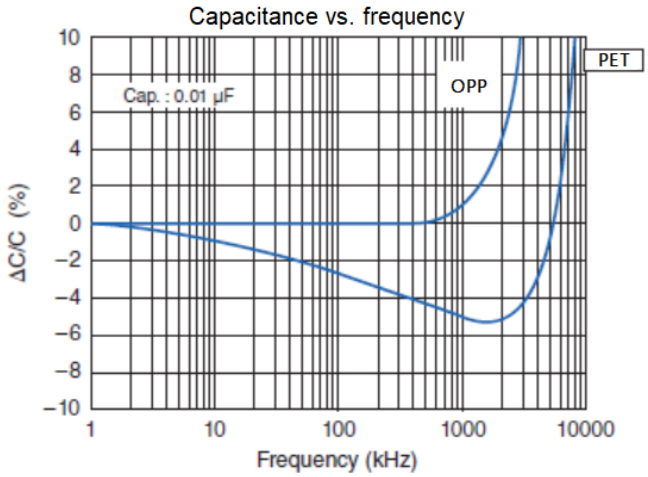
(6) The component has a preheat limitation of 150 °C

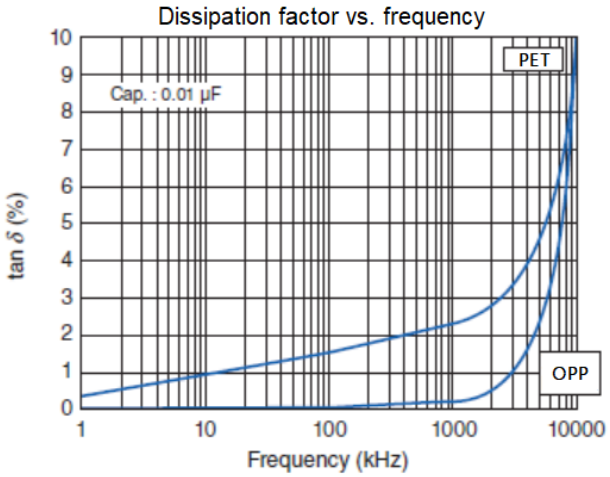
SMTP series (Segmented design)

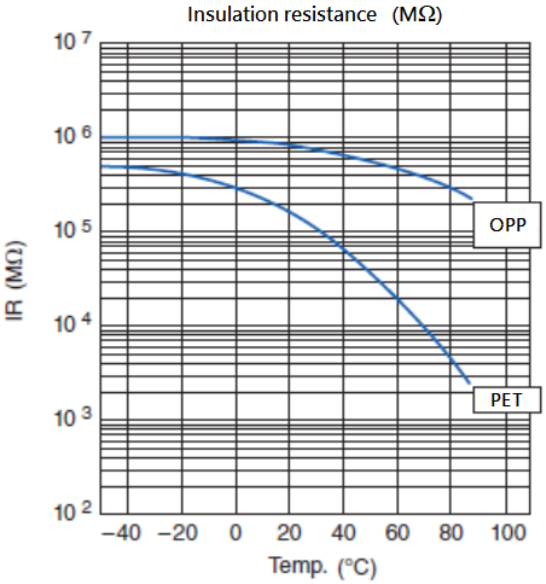
■ Typical graphs









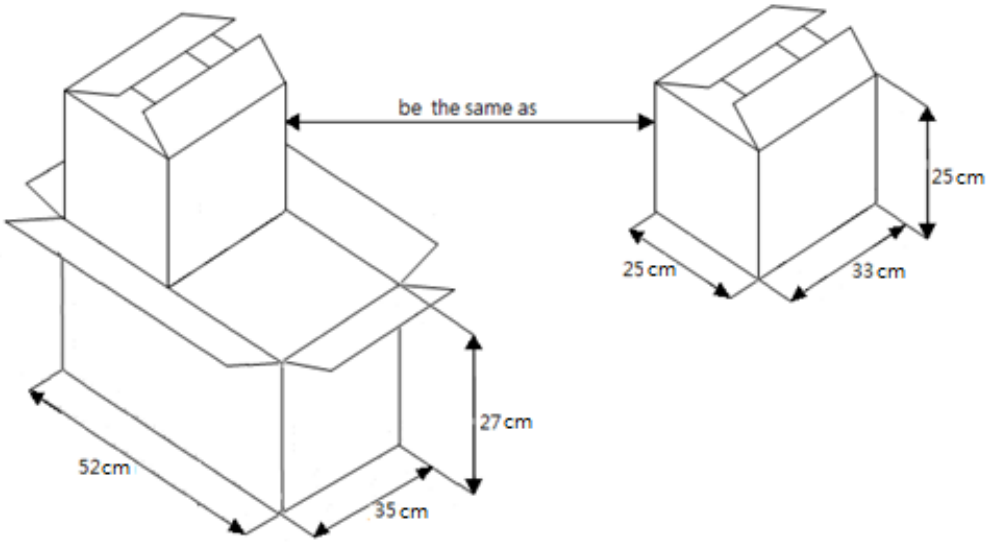


PET : Metallized Polyester film capacitor

OPP : Metallized Polypropylene film capacitor

SMTP series (Segmented design)

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