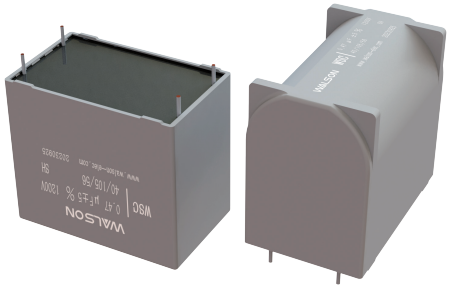
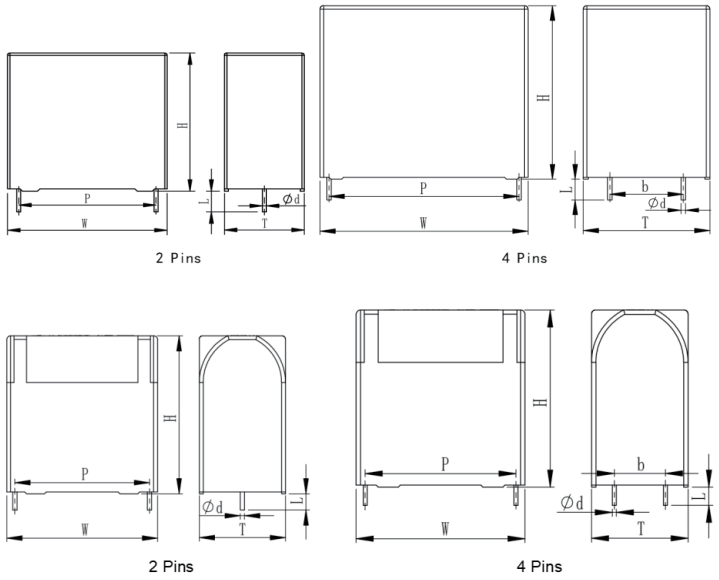
WSC IGBT 吸收电容器（PCB）
Snubber Capacitor for IGBT for PCB

■ 外形图 Outline Drawing





单位 Unit: mm

■ 特点 Features

- 聚丙烯膜介质，特殊电极结构
- 高频损耗小，温升低
- 阻燃塑料外壳和树脂封装（UL94 V-0）

- Polypropylene film dielectric,special electrode construction
- Smaller loss at high frequency and low temperature rise
- Flame-resistant plastic case and resin sealing (UL94V-0)

■ 主要用途 Typical Applications

- 广泛应用于高压高频脉冲电路中，作尖峰电压、尖峰电流吸收用，尤其适用于IGBT吸收电容等

- Widely used for snubbering peak voltage or current in power electronic equipment, especially used as snubber capacitor for IGBT etc.

■ 技术要求 Specifications

引用标准 Reference Standard	GB/T 17702 (IEC 61071)	
工作温度 Operating temperature	-40~+105℃ (+85℃ to +105℃: decreasing factor 1.35% per ℃ for U_N,85℃)	
额定温度 Rated Temperature	85℃	
额定电压 U_N Normal Voltage	630~3000 Vdc	
容量偏差 Capacitance Tolerance	±5%（J），±10%（K）	
耐电压 Voltage Proof	$1.5U_N$(10s)	
损耗角正切 tanδ Dissipation Factor	5×10^{-4} (20℃, 1kHz)	
绝缘电阻 R_{Ins} Insulation Resistance	≥15000MΩ, CN≤0.33μF	(20℃, 100Vdc, 1 min)
	IR×CN≥5000s, C>0.33μF	
预期寿命 t_{EL} Expected Lifetime	100,000h@U_N, Θ_{hs}=70℃	
阻燃性 Flame Retardation	UL 94V-0	

■ 外形尺寸 Dimensions (mm)

U_N: 630Vdc/700Vdc Ur: 420Vac											
C_N (μF)	W ± 1.0 (mm)	H ± 1.0 (mm)	T ± 1.0 (mm)	P ± 0.5 (mm)	b ± 0.5 (mm)	d ± 0.05 (mm)	L_S (nH)	dV/dt (V/μs)	Î (A)	R_{esr} @10kHz (mΩ)	I_{max} 100kHz 70℃ (A)
0.68	37.0	25.0	15.0	32.5	-	1.2	23	900	612	6.0	6.0
1.0	37.0	30.0	16.0	32.5	-	1.2	23	900	900	6.0	9.0
1.2	37.0	30.0	16.0	32.5	-	1.2	23	900	1080	5.5	11.0
1.5	37.0	34.0	20.0	32.5	-	1.2	23	900	1350	5.5	14.0
1.8	37.0	34.0	20.0	32.5	-	1.2	23	900	1620	5.5	14.0
2.0	42.0	40.0	20.0	37.5	-	1.2	29	600	1200	5.0	14.0
2.2	42.0	40.0	20.0	37.5	-	1.2	29	600	1320	5.0	14.0
2.5	42.0	40.0	20.0	37.5	-	1.2	29	600	1500	5.0	14.0
3.0	42.0	44.0	24.0	37.5	-	1.2	29	600	1800	5.0	14.0
3.0	42.0	44.0	24.0	37.5	10.2	1.2	29	600	1800	4.0	20.0
3.3	42.0	44.0	24.0	37.5	-	1.2	29	600	1980	4.5	14.0
3.3	42.0	44.0	24.0	37.5	10.2	1.2	29	600	1980	3.5	20.0
4.0	42.0	44.0	24.0	37.5	-	1.2	29	600	2400	4.5	14.0
4.0	42.0	44.0	24.0	37.5	10.2	1.2	29	600	2400	3.5	21.0
4.7	42.0	45.0	30.0	37.5	20.3	1.2	29	600	2820	3.5	23.0
5.0	42.0	45.0	30.0	37.5	20.3	1.2	29	600	3000	3.0	23.5
6.0	42.0	50.0	35.0	37.5	20.3	1.2	29	600	3600	3.0	25.0
6.5	42.0	55.0	40.0	37.5	20.3	1.2	29	600	3900	3.0	26.0
6.5	57.5	45.0	30.0	52.5	20.3	1.2	33	360	2340	2.5	24.0
7.0	57.5	45.0	30.0	52.5	20.3	1.2	33	360	2520	2.5	25.0
8.0	57.5	50.0	35.0	52.5	20.3	1.2	33	360	2880	2.5	27.0
9.0	57.5	50.0	35.0	52.5	20.3	1.2	33	360	3240	2.5	28.0

U_N: 850Vdc Ur: 450Vac											
C_N (μF)	W ± 1.0 (mm)	H ± 1.0 (mm)	T ± 1.0 (mm)	P ± 0.5 (mm)	b ± 0.5 (mm)	d ± 0.05 (mm)	L_S (nH)	dV/dt (V/μs)	Î (A)	R_{esr} @10kHz (mΩ)	I_{max} 100kHz 70℃ (A)
0.47	37.0	25.0	15.0	32.5	-	1.2	23	1200	564	6.0	6.0
0.68	37.0	30.0	16.0	32.5	-	1.2	23	1200	816	6.0	9.0
1.0	37.0	34.0	20.0	32.5	-	1.2	23	1200	1200	6.0	11.0
1.2	37.0	34.0	20.0	32.5	-	1.2	23	1200	1440	6.0	13.0
1.5	37.0	34.0	20.0	32.5	-	1.2	23	1200	1800	6.0	14.0
1.5	42.0	40.0	20.0	37.5	-	1.2	29	750	1125	5.5	14.0
2.0	42.0	40.0	20.0	37.5	-	1.2	29	750	1500	5.5	14.0
2.2	42.0	40.0	20.0	37.5	-	1.2	29	750	1650	5.5	14.0
2.5	42.0	44.0	24.0	37.5	-	1.2	29	750	1875	5.5	14.0
2.5	42.0	44.0	24.0	37.5	10.2	1.2	29	750	1875	4.5	20.0
3.0	42.0	44.0	24.0	37.5	-	1.2	29	750	2250	5.5	14.0
3.0	42.0	44.0	24.0	37.5	10.2	1.2	29	750	2250	4.5	21.0
3.3	42.0	45.0	30.0	37.5	20.3	1.2	29	750	2475	4.5	21.5
4.0	42.0	55.0	40.0	37.5	20.3	1.2	29	750	3000	4.5	22.0
4.0	57.5	45.0	30.0	52.5	20.3	1.2	33	450	1800	4.0	23.0
4.7	57.5	45.0	30.0	52.5	20.3	1.2	33	450	2115	4.0	24.5
5.0	57.5	45.0	30.0	52.5	20.3	1.2	33	450	2250	4.0	25.0
6.0	57.5	50.0	35.0	52.5	20.3	1.2	33	450	2700	4.0	26.0
6.5	57.5	50.0	35.0	52.5	20.3	1.2	33	450	2925	4.0	27.0

■ 外形尺寸 Dimensions (mm)

U_N: 1000Vdc Ur: 500Vac											
C_N (μF)	W±1.0 (mm)	H±1.0 (mm)	T±1.0 (mm)	P±0.5 (mm)	b±0.5 (mm)	d±0.05 (mm)	L_S (nH)	dV/dt (V/μs)	Î (A)	R_{esr} @10kHz (mΩ)	I_{max} 100kHz 70℃ (A)
0.47	37.0	25.0	15.0	32.5	-	1.2	23	1300	611	6.0	6.0
0.68	37.0	30.0	16.0	32.5	-	1.2	23	1300	884	6.0	7.0
0.82	37.0	30.0	16.0	32.5	-	1.2	23	1300	1066	6.0	9.0
1.0	37.0	34.0	20.0	32.5	-	1.2	23	1300	1300	5.5	12.0
1.2	37.0	34.0	20.0	32.5	-	1.2	23	1300	1560	5.5	14.0
1.2	42.0	40.0	20.0	37.5	-	1.2	29	850	1020	5.5	14.0
1.5	42.0	40.0	20.0	37.5	-	1.2	29	850	1275	5.5	14.0
2.0	42.0	44.0	24.0	37.5	-	1.2	29	850	1700	5.5	14.0
2.0	42.0	44.0	24.0	37.5	10.2	1.2	29	850	1700	4.5	17.0
2.2	42.0	44.0	24.0	37.5	-	1.2	29	850	1870	5.0	14.0
2.2	42.0	44.0	24.0	37.5	10.2	1.2	29	850	1870	4.0	20.0
2.5	42.0	45.0	30.0	37.5	20.3	1.2	29	850	2125	4.0	21.0
3.0	42.0	45.0	30.0	37.5	20.3	1.2	29	850	2550	4.0	21.5
3.3	42.0	55.0	40.0	37.5	20.3	1.2	33	850	2805	4.0	22.0
3.3	57.5	450.	30.0	52.5	20.3	1.2	33	500	1650	4.0	20.0
4.0	57.5	45.0	30.0	52.5	20.3	1.2	33	500	2000	4.0	21.0
4.7	57.5	50.0	35.0	52.5	20.3	1.2	33	500	2350	4.0	22.0
5.0	57.5	45.0	30.0	52.5	20.3	1.2	33	500	2500	4.0	23.0

U_N: 1200Vdc Ur: 600Vac											
C_N (μF)	W±1.0 (mm)	H±1.0 (mm)	T±1.0 (mm)	P±0.5 (mm)	b±0.5 (mm)	d±0.05 (mm)	L_S (nH)	dV/dt (V/μs)	Î (A)	R_{esr} @10kHz (mΩ)	I_{max} 100kHz 70℃ (A)
0.33	37.0	25.0	15.0	32.5	-	1.2	23	1500	495	6.5	6.0
0.47	37.0	30.0	16.0	32.5	-	1.2	23	1500	705	6.5	8.0
0.68	37.0	34.0	20.0	32.5	-	1.2	23	1500	1020	6.5	9.0
0.75	37.0	34.0	20.0	32.5	-	1.2	23	1500	1125	6.5	10.0
0.82	42.0	40.0	20.0	37.5	-	1.2	29	950	779	6.0	11.0
1.0	42.0	40.0	20.0	37.5	-	1.2	29	950	950	6.0	13.0
1.2	42.0	44.0	24.0	37.5	-	1.2	29	950	1140	5.5	14.0
1.2	42.0	44.0	24.0	37.5	10.2	1.2	29	950	1140	4.5	17.0
1.5	42.0	44.0	24.0	37.5	-	1.2	29	950	1425	5.5	14.0
1.5	42.0	44.0	24.0	37.5	10.2	1.2	29	950	1425	4.5	17.5
2.0	42.0	45.0	30.0	37.5	20.3	1.2	29	950	1900	4.5	18.0
2.2	42.0	50.0	35.0	37.5	20.3	1.2	29	950	2090	4.5	19.0
2.5	42.0	55.0	40.0	37.5	20.3	1.2	29	950	2375	4.5	20.0
2.2	57.5	45.0	30.0	52.5	20.3	1.2	33	600	1320	4.0	18.0
2.5	57.5	45.0	30.0	52.5	20.3	1.2	33	600	1500	4.0	19.0
3.0	57.5	50.0	35.0	52.5	20.3	1.2	33	600	1800	4.0	20.0
3.3	57.5	50.0	35.0	52.5	20.3	1.2	33	600	1980	4.0	21.0
3.5	57.5	50.0	35.0	52.5	20.3	1.2	33	600	2100	4.0	22.0

■ 外形尺寸 Dimensions (mm)

U_N: 1600Vdc Ur: 650Vac											
C_N (μF)	W ± 1.0 (mm)	H ± 1.0 (mm)	T ± 1.0 (mm)	P ± 0.5 (mm)	b ± 0.5 (mm)	d ± 0.05 (mm)	L_S (nH)	dV/dt (V/μs)	Î (A)	R_{esr} @10kHz (mΩ)	I_{max} 100kHz 70℃ (A)
0.22	37.0	25.0	15.0	32.5	-	1.2	23	1900	418	7.5	6.0
0.33	37.0	30.0	16.0	32.5	-	1.2	23	1900	627	7.5	7.5
0.39	37.0	33.0	18.0	32.5	-	1.2	23	1900	741	7.0	9.0
0.47	37.0	34.0	20.0	32.5	-	1.2	23	1900	893	7.0	11.0
0.68	42.0	40.0	20.0	37.5	-	1.2	29	1250	850	4.0	14.0
0.82	42.0	44.0	24.0	37.5	-	1.2	29	1250	1025	4.0	14.0
0.82	42.0	44.0	24.0	37.5	10.2	1.2	29	1250	1025	4.0	17.0
1.0	42.0	45.0	30.0	37.5	20.3	1.2	29	1250	1250	4.0	17.5
1.2	42.0	50.0	35.0	37.5	20.3	1.2	29	1250	1500	4.0	18.0
1.5	42.0	55.0	40.0	37.5	20.3	1.2	29	1250	1875	4.0	19.0
1.5	57.5	45.0	30.0	52.5	20.3	1.2	33	750	1125	4.0	20.0
2.0	57.5	50.0	35.0	52.5	20.3	1.2	33	750	1500	4.0	22.0

U_N: 1700Vdc Ur: 675Vac											
C_N (μF)	W ± 1.0 (mm)	H ± 1.0 (mm)	T ± 1.0 (mm)	P ± 0.5 (mm)	b ± 0.5 (mm)	d ± 0.05 (mm)	L_S (nH)	dV/dt (V/μs)	Î (A)	R_{esr} @10kHz (mΩ)	I_{max} 100kHz 70℃ (A)
0.15	37.0	25.0	15.0	32.5	-	1.2	23	2000	300	8.5	5.0
0.22	37.0	30.0	16.0	32.5	-	1.2	23	2000	440	7.5	6.0
0.33	37.0	34.0	20.0	32.5	-	1.2	23	2000	660	7.0	9.0
0.39	37.0	34.0	20.0	32.5	-	1.2	23	2000	780	7.0	10.0
0.47	42.0	40.0	20.0	37.5	-	1.2	29	1260	592	6.0	12.0
0.56	42.0	44.0	24.0	37.5	-	1.2	29	1260	706	6.0	13.0
0.56	42.0	44.0	24.0	37.5	10.2	1.2	29	1260	706	5.0	15.0
0.68	42.0	44.0	24.0	37.5	-	1.2	29	1260	857	6.0	14.0
0.68	42.0	44.0	24.0	37.5	10.2	1.2	29	1260	857	6.0	16.0
0.82	42.0	45.0	30.0	37.5	20.3	1.2	29	1260	1033	5.5	14.0
1.0	42.0	50.0	35.0	37.5	20.3	1.2	29	1260	1260	4.5	17.0
1.2	42.0	50.0	35.0	37.5	20.3	1.2	29	1260	1512	4.5	18.0
1.5	42.0	55.0	40.0	37.5	20.3	1.2	29	1260	1890	4.5	19.0
1.2	57.5	45.0	30.0	52.5	20.3	1.2	33	780	936	4.0	17.0
1.5	57.5	45.0	30.0	52.5	20.3	1.2	33	780	1170	4.0	20.0
2.0	57.5	50.0	35.0	52.5	20.3	1.2	33	780	1560	4.0	22.0

U_N: 2000Vdc Ur: 700Vac											
C_N (μF)	W ± 1.0 (mm)	H ± 1.0 (mm)	T ± 1.0 (mm)	P ± 0.5 (mm)	b ± 0.5 (mm)	d ± 0.05 (mm)	L_S (nH)	dV/dt (V/μs)	Î (A)	R_{esr} @10kHz (mΩ)	I_{max} 100kHz 70℃ (A)
0.10	37.0	25.0	15.0	32.5	-	1.2	23	2200	220	9.5	5.0
0.15	37.0	25.0	15.0	32.5	-	1.2	23	2200	330	9.5	6.0
0.22	37.0	30.0	16.0	32.5	-	1.2	23	2200	484	7.5	7.5
0.33	37.0	34.0	20.0	32.5	-	1.2	23	2200	726	7.5	10.0
0.47	42.0	44.0	20.0	37.5	-	1.2	29	1300	611	6.0	13.0
0.56	42.0	44.0	24.0	37.5	-	1.2	29	1300	728	6.0	14.0
0.56	42.0	44.0	24.0	37.5	10.2	1.2	29	1300	728	5.0	16.0
0.68	42.0	44.0	24.0	37.5	-	1.2	29	1300	884	5.5	14.0
0.68	42.0	44.0	24.0	37.5	10.2	1.2	29	1300	884	4.5	16.5

■ 外形尺寸 Dimensions (mm)

U_N: 2000Vdc Ur: 700Vac											
C_N (μF)	W ± 1.0 (mm)	H ± 1.0 (mm)	T ± 1.0 (mm)	P ± 0.5 (mm)	b ± 0.5 (mm)	d ± 0.05 (mm)	L_S (nH)	dV/dt (V/μs)	Î (A)	R_{esr} @10kHz (mΩ)	I_{max} 100kHz 70℃ (A)
0.82	42.0	45.0	30.0	37.5	20.3	1.2	29	1300	1066	4.5	17.0
1.0	42.0	50.0	35.0	37.5	20.3	1.2	29	1300	1300	4.5	19.0
1.2	42.0	55.0	40.0	37.5	20.3	1.2	29	1300	1560	4.5	20.0
1.0	57.5	45.0	30.0	52.5	20.3	1.2	33	900	900	4.5	20.0
1.2	57.5	45.0	30.0	52.5	20.3	1.2	33	900	1080	4.5	21.0
1.5	57.5	50.0	35.0	52.5	20.3	1.2	33	900	1350	4.5	22.0

U_N: 2500Vdc Ur: 725Vac											
C_N (μF)	W ± 1.0 (mm)	H ± 1.0 (mm)	T ± 1.0 (mm)	P ± 0.5 (mm)	b ± 0.5 (mm)	d ± 0.05 (mm)	L_S (nH)	dV/dt (V/μs)	Î (A)	R_{esr} @10kHz (mΩ)	I_{max} 100kHz 70℃ (A)
0.068	37.0	25.0	15.0	32.5	–	1.2	23	3200	218	10.0	5.0
0.10	37.0	30.0	16.0	32.5	–	1.2	23	3200	320	10.0	6.0
0.15	37.0	34.0	20.0	32.5	–	1.2	23	3200	480	9.5	8.0
0.18	37.0	34.0	20.0	32.5	–	1.2	23	3200	576	9.0	10.5
0.22	42.0	40.0	20.0	37.5	–	1.2	29	2100	462	5.5	11.0
0.33	42.0	44.0	24.0	37.5	–	1.2	29	2100	693	5.5	13.0
0.33	42.0	44.0	24.0	37.5	10.2	1.2	29	2100	693	4.5	15.2
0.47	42.0	45.0	30.0	37.5	20.3	1.2	29	2100	987	4.0	16.0
0.68	42.0	50.0	35.0	37.5	20.3	1.2	29	2100	1428	4.0	16.5
0.82	42.0	55.0	40.0	37.5	20.3	1.2	29	2100	1722	4.0	17.0
0.68	57.5	45.0	30.0	52.5	20.3	1.2	33	1200	816	4.0	17.0
1.0	57.5	50.0	35.0	52.5	20.3	1.2	33	1200	1200	4.0	18.0

U_N: 3000Vdc Ur: 750Vac											
C_N (μF)	W ± 1.0 (mm)	H ± 1.0 (mm)	T ± 1.0 (mm)	P ± 0.5 (mm)	b ± 0.5 (mm)	d ± 0.05 (mm)	L_S (nH)	dV/dt (V/μs)	Î (A)	R_{esr} @10kHz (mΩ)	I_{max} 100kHz 70℃ (A)
0.047	37.0	25.0	15.0	32.5	–	1.2	23	3350	157	10.5	5.5
0.068	37.0	30.0	16.0	32.5	–	1.2	23	3350	228	10.0	6.0
0.10	37.0	34.0	20.0	32.5	–	1.2	23	3350	335	9.5	8.0
0.15	37.0	34.0	20.0	32.5	–	1.2	23	3350	503	9.0	9.0
0.18	42.0	40.0	20.0	37.5	–	1.2	29	2150	387	8.0	9.0
0.22	42.0	40.0	20.0	37.5	–	1.2	29	2150	473	7.0	10.0
0.22	42.0	44.0	24.0	37.5	10.2	1.2	29	2150	473	6.5	11.0
0.33	42.0	45.0	30.0	37.5	20.3	1.2	29	2150	710	5.5	14.5
0.47	42.0	50.0	35.0	37.5	20.3	1.2	29	2150	1011	5.0	16.0
0.56	42.0	55.0	40.0	37.5	20.3	1.2	29	2150	1204	5.0	16.5
0.47	57.5	45.0	30.0	52.5	20.3	1.2	33	1250	588	5.0	16.5
0.68	57.5	45.0	30.0	52.5	20.3	1.2	33	1250	850	5.0	17.0
0.82	57.5	50.0	35.0	52.5	20.3	1.2	33	1250	1025	4.5	18.0