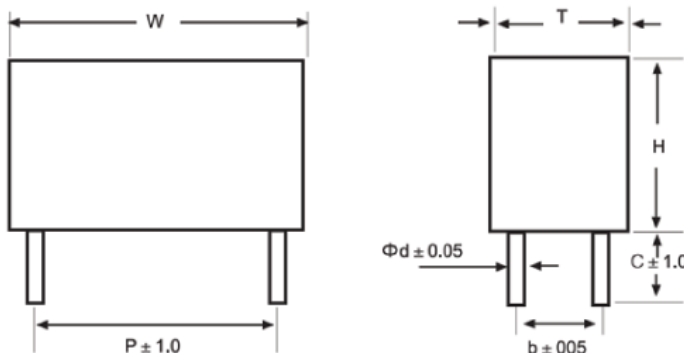


IGBT吸收电容器(PCB) Snubber capacitor for IGBT (PCB)

■ 外形图 Outline Drawing



■ 特点

- 广泛应用于高压高频脉冲电路中
- 损耗小, 内部温升小
- 优异的阻燃性能
- 适合作为IGBT的吸收电容

■ Features

- Widely used in high voltage, high frequency circuit
- Low loss and small inherent temperature rise
- Excellent active and passive flame resistant circuit
- Especially designed as snubber capacitor for IGBT

■ 技术要求 Specifications

引用标准 Reference Standard	IEC 61071	
气候类别 Climatic Category	40/85/56	
工作温度范围 Operating Temperature Range	-40°C~85°C	
额定电压 Rated Voltage	630Vdc ~ 3 000Vdc	
电容量范围 Capacitance Range	0.047 μ F ~ 9.0 μ F	
电容量偏差 Capacitance Tolerance	J($\pm 5\%$), K($\pm 10\%$), M($\pm 20\%$)	
耐电压 Voltage Proof	1.5U _N (10s)	
损耗角正切 Dissipation Factor	≤ 0.0005 (1kHz, 20°C)	
绝缘电阻 Insulation Resistance	$\geq 100\ 000M\Omega$, C _N $\leq 0.33\mu$ F	(20°C, 100V, 1min)
	$\geq 30\ 000s$ C _N $> 0.33\mu$ F	
电极端子 Terminals	4 pins	

产品编码说明 Part number system

■ 18位产品代码如下:

The 18 digits part number is formed as follow:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
C	3	H															

第1~3位	型号代码	Digit 1 to 3	Series code
	C3H		C3H
第4~5位	直流额定电压	Digit 4 to 5	D.C. rated voltage
	2J=630V 1V=700V 1W=850V		2J=630V 1V=700V 1W=850V
	3A=1000V 3L=1200V 3C=1600V		3A=1000V 3L=1200V 3C=1600V
	3D=2000V 3E=2500V 4Q=3000V		3D=2000V 3E=2500V 4Q=3000V
第6~8位	标称容量	Digit 6 to 8	Rated capacitance value
	举例: 105=10 × 10 ⁵ pF= 1.0 μ F		For example : 105=10 × 10 ⁵ pF= 1.0 μ F
第9位	容量等级	Digit 9	Capacitance tolerance
	J= ± 5%, K= ± 10%, M= ± 20%		J= ± 5%, K= ± 10%, M= ± 20%
第10位	引线间距P	Digit10	Pitch
	D=32.5 mm F=37.5 mm M=52.5 mm		D=32.5 mm F=37.5 mm M=52.5 mm
第11位	内部特征码	Digit11	Internal use
第12~15位	引线加工和包装代码	Digit 12~15	Lead form and packaging code
第16~18位	内部特征码	Digit16~18	Internal use

■ Table 1 引线加工和包装代码 Lead form and packaging code

第12位 Digit 12		第13位和第14位 Digit 13 and Digit 14		第15位 Digit 15	
代码 Code	说明 explanation	代码 Code	说明 explanation	代码 Code	说明 explanation
1	4 引线散装 four pins(bulk) b=10.0mm	00	标准的引线长度 5.5mm standard lead length 5.5mm	0	引线长度偏差 ± 1.0mm Length tolerance ± 1.0mm
2	4 引线散装 four pins(bulk) b=12.7mm				
3	4 引线散装 four pins(bulk) b=20.0mm				

■ 技术参数 Technical data(mm)

630Vdc / 700Vdc (420 Vac)#												
C _N (μF)	W±1.0	H±1.0	T±1.0	P±1.0	b±0.5	d±0.05	dV/dt V/μs	I _{peak} A	ESR MAX@100kHz	ESL nH	I _{rms} 100kHz @70°C	产品代码 Part number
0.68	37.0	25.0	15.0	32.5	5.0	1.0	900	612	5.0	23	13	C3H1V684+D06000***
1.0	37.0	30.0	16.0	32.5	5.0	1.0	900	900	5.0	23	14	C3H1V105+ D06000***
1.2	37.0	30.0	16.0	32.5	5.0	1.0	900	1 080	4.5	23	16	C3H1V125+ D06000***
1.5	37.0	34.0	20.0	32.5	10.0	1.0	900	1 350	4.5	23	17	C3H1V155+ D01000***
1.8	37.0	34.0	20.0	32.5	10.0	1.0	900	1 620	4.5	23	18	C3H1V185+ D01000***
2.0	42.0	40.0	20.0	37.5	10.0	1.2	600	1 200	4.0	29	18	C3H1V205+ F01000***
2.2	42.0	40.0	20.0	37.5	10.0	1.2	600	1 320	4.0	29	18.5	C3H1V225+ F01000***
2.5	42.0	40.0	20.0	37.5	10.0	1.2	600	1 500	4.0	29	19	C3H1V255+ F01000***
3.0	42.0	44.0	24.0	37.5	12.7	1.2	600	1 800	4.0	29	20	C3H1V305+ F02000***
3.3	42.0	44.0	24.0	37.5	12.7	1.2	600	1 980	3.5	29	20	C3H1V335+ F02000***
4.0	42.0	44.0	24.0	37.5	12.7	1.2	600	2 400	3.5	29	21	C3H1V405+ F02000***
4.7	42.0	45.0	30.0	37.5	20.0	1.2	600	2 820	3.5	29	23	C3H1V475+F03000***
5.0	42.0	45.0	30.0	37.5	20.0	1.2	600	3 000	3.0	29	23.5	C3H1V505+F03000***
6.0	42.0	43.0	42.0	37.5	20.0	1.2	600	3 600	3.0	29	25	C3H1V605+F03000***
6.5	42.0	43.0	42.0	37.5	20.0	1.2	600	3 900	3.0	29	26	C3H1V655+F03000***
6.5	57.0	43.5	29.5	52.5	20.0	1.2	360	2 340	2.5	33	24	C3H1V655+M03000***
7.0	57.0	43.5	29.5	52.5	20.0	1.2	360	2 520	2.5	33	25	C3H1V705+M03000***
8.0	57.0	50.0	35.0	52.5	20.0	1.2	360	2 880	2.5	33	27	C3H1V805+M03000***
9.0	57.0	50.0	35.0	52.5	20.0	1.2	360	3 240	2.5	33	28	C3H1V905+M03000***

850Vdc (450 Vac)												
C _N (μF)	W±1.0	H±1.0	T±1.0	P±1.0	b±0.5	d±0.05	dV/dt V/μs	I _{peak} A	ESR MAX@100kHz	ESL nH	I _{rms} 100kHz @70°C	产品代码 Part number
0.47	37.0	25.0	15.0	32.5	5.0	1.0	1 200	564	5.0	23	15	C3H1W474+ D06000***
0.68	37.0	30.0	16.0	32.5	5.0	1.0	1 200	816	5.0	23	16	C3H1W684+ D06000***
1.0	37.0	34.0	20.0	32.5	10.0	1.0	1 200	1 200	5.0	23	17	C3H1W105+ D01000***
1.2	37.0	34.0	20.0	32.5	10.0	1.0	1 200	1 440	5.0	23	17.5	C3H1W125+ D01000***
1.5	37.0	34.0	20.0	32.5	10.0	1.0	1 200	1 800	5.0	23	18	C3H1W155+ D01000***
1.5	42.0	40.0	20.0	37.5	10.0	1.2	750	1 125	4.5	29	18.5	C3H1W155+F01000***
2.0	42.0	40.0	20.0	37.5	10.0	1.2	750	1 500	4.5	29	19	C3H1W205+F01000***
2.2	42.0	40.0	20.0	37.5	10.0	1.2	750	1 650	4.5	29	19.5	C3H1W225+F01000***
2.5	42.0	44.0	24.0	37.5	12.7	1.2	750	1 875	4.5	29	20	C3H1W255+F02000***
3.0	42.0	44.0	24.0	37.5	12.7	1.2	750	2 250	4.5	29	21	C3H1W305+F02000***
3.3	42.0	45.0	30.0	37.5	20.0	1.2	750	2 475	4.5	29	21.5	C3H1W335+F03000***
4.0	42.0	43.0	42.0	37.5	20.0	1.2	750	3 000	4.5	29	22	C3H1W405+F03000***
4.0	57.0	43.5	29.5	52.5	20.0	1.2	450	1 800	4.0	33	23	C3H1W405+M03000***
4.7	57.0	43.5	29.5	52.5	20.0	1.2	450	2 115	4.0	33	24.5	C3H1W475+M03000***
5.0	57.0	43.5	29.5	52.5	20.0	1.2	450	2 250	4.0	33	25	C3H1W505+M03000***
6.0	57.0	50.0	35.0	52.5	20.0	1.2	450	2 700	4.0	33	26	C3H1W605+M03000***
6.5	57.0	50.0	35.0	52.5	20.0	1.2	450	2 925	4.0	33	27	C3H1W655+M03000***

■ 技术参数 Technical data(mm)

1 000Vdc (500 Vac)												
C _N (μF)	W±1.0	H±1.0	T±1.0	P±1.0	b±0.5	d±0.05	dV/dt V/μs	I _{peak} A	ESR MAX@100kHz	ESL nH	I _{rms} 100kHz @70°C	产品代码 Part number
0.47	37.0	25.0	15.0	32.5	5.0	1.0	1 300	611	5.0	23	14	C3H3A474+D06000***
0.68	37.0	30.0	16.0	32.5	5.0	1.0	1 300	884	5.0	23	15	C3H3A684+D06000***
0.82	37.0	30.0	16.0	32.5	5.0	1.0	1 300	1 066	5.0	23	16	C3H3A824+D06000***
1.0	37.0	34.0	20.0	32.5	10.0	1.0	1 300	1 300	4.5	23	17	C3H3A105+ D01000***
1.2	37.0	34.0	20.0	32.5	10.0	1.0	1 300	1 560	4.5	23	17	C3H3A125+ D01000***
1.2	42.0	40.0	20.0	37.5	10.0	1.2	850	1 020	4.5	29	16	C3H3A125+ F01000***
1.5	42.0	40.0	20.0	37.5	10.0	1.2	850	1 275	4.5	29	16	C3H3A155+ F01000***
2	42.0	44.0	24.0	37.5	12.7	1.2	850	1 700	4.5	29	17	C3H3A205+ F02000***
2.2	42.0	44.0	24.0	37.5	12.7	1.2	850	1 870	4.0	29	20	C3H3A225+ F02000***
2.5	42.0	45.0	30.0	37.5	20.0	1.2	850	2 125	4.0	29	21	C3H3A255+ F03000***
3.0	42.0	45.0	30.0	37.5	20.0	1.2	850	2 550	4.0	29	21.5	C3H3A305+ F03000***
3.3	42.0	43.0	42.0	37.5	20.0	1.2	850	2 805	4.0	29	22	C3H3A335+ F03000***
3.3	57.0	43.5	29.5	37.5	20.0	1.2	500	1 650	4.0	33	20	C3H3A335+ M03000***
4.0	57.0	43.5	29.5	52.5	20.0	1.2	500	2 000	4.0	33	21	C3H3A405+ M03000***
4.7	57.0	50.0	35.0	52.5	20.0	1.2	500	2 350	4.0	33	22	C3H3A475+ M03000***
5.0	57.0	50.0	35.0	32.5	20.0	1.2	500	2 500	4.0	33	23	C3H3A505+ M03000***

1 200Vdc (600 Vac)												
C _N (μF)	W±1.0	H±1.0	T±1.0	P±1.0	b±0.5	d±0.05	dV/dt V/μs	I _{peak} A	ESR MAX@100kHz	ESL nH	I _{rms} 100kHz @70°C	产品代码 Part number
0.33	37.0	25.0	15.0	32.5	5.0	1.0	1 500	495	5.5	23	13.5	C3H3L334+ D06000***
0.47	37.0	30.0	16.0	32.5	5.0	1.0	1 500	705	5.5	23	14	C3H3L474+ D06000***
0.68	37.0	34.0	20.0	32.5	10.0	1.0	1 500	1 020	5.5	23	15	C3H3L684+ D01000***
0.75	37.0	34.0	20.0	32.5	10.0	1.0	1 500	1 125	5.5	23	16	C3H3L754+ D01000***
0.82	42.0	40.0	20.0	37.5	10.0	1.2	950	779	5.0	29	16	C3H3L824+ F01000***
1.0	42.0	40.0	20.0	37.5	10.0	1.2	950	950	5.0	29	17	C3H3L105+ F01000***
1.2	42.0	44.0	24.0	37.5	12.7	1.2	950	1 140	4.5	29	17	C3H3L125+ F02000***
1.5	42.0	44.0	24.0	37.5	12.7	1.2	950	1 425	4.5	29	17.5	C3H3L155+ F02000***
2.0	42.0	45.0	30.0	37.5	20.0	1.2	950	1 900	4.5	29	18	C3H3L205+ F03000***
2.2	42.0	43.0	42.0	37.5	20.0	1.2	950	2 090	4.5	29	19	C3H3L225+ F03000***
2.5	42.0	43.0	42.0	37.5	20.0	1.2	950	2 375	4.5	29	20	C3H3L255+ F03000***
2.2	57.0	43.5	29.5	52.5	20.0	1.2	600	1 320	4.0	33	18	C3H3L225+ M03000***
2.5	57.0	43.5	29.5	52.5	20.0	1.2	600	1 500	4.0	33	19	C3H3L255+ M03000***
3.0	57.0	43.5	29.5	52.5	20.0	1.2	600	1 800	4.0	33	20	C3H3L305+ M03000***
3.3	57.0	50.0	35.0	52.5	20.0	1.2	600	1 980	4.0	33	21	C3H3L335+ M03000***
4.0	57.0	50.0	35.0	52.5	20.0	1.2	600	2 400	4.0	33	22	C3H3L405+ M03000***

■ 技术参数 Technical data(mm)

1 600Vdc (650Vac)												
C _N (μF)	W±1.0	H±1.0	T±1.0	P±1.0	b±0.5	d±0.05	dV/dt V/μs	I _{peak} A	ESR MAX@100kHz	ESL nH	I _{rms} 100kHz @70°C	产品代码 Part number
0.22	37.0	25.0	15.0	32.5	5.0	1.0	1 900	418	6.5	23	13	C3H3C224+ D06000***
0.33	37.0	30.0	16.0	32.5	5.0	1.0	1 900	627	6.5	23	13.5	C3H3C334+ D06000***
0.39	37.0	33.0	18.0	32.5	5.0	1.0	1 900	741	6.0	23	14	C3H3C394+ D06000***
0.47	37.0	34.0	20.0	32.5	10.0	1.0	1 900	893	6.0	23	15	C3H3C474+ D01000***
0.68	42.0	40.0	20.0	37.5	10.0	1.2	1 250	850	4.0	29	16	C3H3C684+ F01000***
0.82	42.0	44.0	24.0	37.5	12.7	1.2	1 250	1 025	4.0	29	17	C3H3C824+ F02000***
1.0	42.0	45.0	30.0	37.5	20.0	1.2	1 250	1 250	4.0	29	17.5	C3H3C105+ F03000***
1.2	42.0	45.0	30.0	37.5	20.0	1.2	1 250	1 500	4.0	29	18	C3H3C125+ F03000***
1.5	42.0	43.0	42.0	37.5	20.0	1.2	1 250	1 875	4.0	29	19	C3H3C155+ F03000***
1.5	57.0	43.5	29.5	52.5	20.0	1.2	750	1 125	4.0	33	20	C3H3C155+ M03000***
2.0	57.0	50.0	35.0	52.5	20.0	1.2	750	1 500	4.0	33	22	C3H3C205+ M03000***

2 000Vdc (700Vac)												
C _N (μF)	W±1.0	H±1.0	T±1.0	P±1.0	b±0.5	d±0.05	dV/dt V/μs	I _{peak} A	ESR MAX@100kHz	ESL nH	I _{rms} 100kHz @70°C	产品代码 Part number
0.10	37.0	25.0	15.0	32.5	5.0	1.0	2 241	224	8.5	23	12	C3H3D104+ D06000***
0.15	37.0	25.0	15.0	32.5	5.0	1.0	2 241	336	8.5	23	13	C3H3D154+ D06000***
0.22	37.0	30.0	16.0	32.5	5.0	1.0	2 241	493	6.5	23	13.5	C3H3D224+ D06000***
0.33	37.0	34.0	20.0	32.5	10.0	1.0	2 241	740	6.5	23	14	C3H3D334+ D01000***
0.47	42.0	40.0	20.0	37.5	10.0	1.2	1 300	611	5.0	29	15	C3H3D474+ F01000***
0.56	42.0	44.0	24.0	37.5	12.7	1.2	1 300	728	5.0	29	16	C3H3D564+ F02000***
0.68	42.0	44.0	24.0	37.5	12.7	1.2	1 300	884	4.5	29	16.5	C3H3D684+ F02000***
0.82	42.0	45.0	30.0	37.5	20.0	1.2	1 300	1 066	4.5	29	17	C3H3D824+ F03000***
1.0	42.0	43.0	42.0	37.5	20.0	1.2	1 300	1 300	4.5	29	19	C3H3D105+ F03000***
1.0	57.0	43.5	29.5	52.5	20.0	1.2	850	850	4.5	33	20	C3H3D105+ M03000***
1.2	57.0	43.5	29.5	52.5	20.0	1.2	850	1 020	4.5	33	21	C3H3D125+ M03000***
1.5	57.0	50.0	35.0	52.5	20.0	1.2	850	1 275	4.5	33	22	C3H3D155+ M03000***

■ 技术参数 Technical data(mm)

2 500Vdc (725Vac)												
C _N (μF)	W±1.0	H±1.0	T±1.0	P±1.0	b±0.5	d±0.05	dV/dt V/μs	I _{peak} A	ESR MAX@100kHz	ESL nH	I _{rms} 100kHz @70°C	产品代码 Part number
0.068	37.0	25.0	15.0	32.5	5.0	1.0	3 230	220	9.0	23	12	C3H3E683+ D06000***
0.10	37.0	30.0	16.0	32.5	5.0	1.0	3 230	323	9.0	23	13	C3H3E104+ D06000***
0.15	37.0	34.0	20.0	32.5	10.0	1.0	3 230	485	8.5	23	14	C3H3E154+ D01000***
0.18	37.0	34.0	20.0	32.5	10.0	1.0	3 230	581	8.0	23	15	C3H3E184+ D01000***
0.22	42.0	40.0	20.0	37.5	10.0	1.2	2 100	462	4.5	29	15	C3H3E224+ F01000***
0.33	42.0	44.0	24.0	37.5	12.7	1.2	2 100	693	4.5	29	15.2	C3H3E334+ F02000***
0.47	42.0	45.0	30.0	37.5	20.0	1.2	2 100	987	4.0	29	16	C3H3E474+ F03000***
0.68	42.0	43.0	42.0	37.5	20.0	1.2	2 100	1428	4.0	29	16.5	C3H3E684+ F03000***
0.68	57.0	43.5	29.5	52.5	20.0	1.2	1 200	816	4.0	33	17	C3H3E684+ M03000***
1.0	57.0	50.0	35.0	52.5	20.0	1.2	1 200	1 200	4.0	33	17.5	C3H3E105+ M03000***

3 000Vdc (750Vac)												
C _N (μF)	W±1.0	H±1.0	T±1.0	P±1.0	b±0.5	d±0.05	dV/dt V/μs	I _{peak} A	ESR MAX@100kHz	ESL nH	I _{rms} 100kHz @70°C	产品代码 Part number
0.047	37.0	25.0	15.0	32.5	5.0	1.0	3 361	158	9.5	23	11	C3H4Q473+ D06000***
0.068	37.0	30.0	16.0	32.5	5.0	1.0	3 361	229	9.0	23	12	C3H4Q683+ D06000***
0.10	37.0	34.0	20.0	32.5	10.0	1.0	3 361	336	8.5	23	13	C3H4Q104+ D01000***
0.15	37.0	34.0	20.0	32.5	10.0	1.0	3 361	504	8.0	23	13.5	C3H4Q154+ D01000***
0.22	42.0	40	20.0	37.5	10.0	1.2	2 050	451	6.0	29	14	C3H4Q224+ F01000***
0.33	42.0	45.0	30.0	37.5	20.0	1.2	2 050	677	5.5	29	14.5	C3H4Q334+ F03000***
0.47	42.0	43.0	42.0	37.5	20.0	1.2	2 050	964	5.0	29	16	C3H4Q474+ F03000***
0.47	57.0	43.5	29.5	52.5	20.0	1.2	1 200	564	5.0	33	16.5	C3H4Q474+ M03000***
0.68	57.0	50.0	35.0	52.5	20.0	1.2	1 200	816	5.0	33	17	C3H4Q684+ M03000***
0.82	57.0	50.0	35.0	52.5	20.0	1.2	1 200	984	4.5	33	18	C3H4Q824+ M03000***

- 备注: 1. “+”表示容量偏差。 “+” =capacitance tolerance code M= ± 20%,K= ± 10%, J= ± 5%
 2. “#”当额定电压为630Vdc时,第4 5位为2J。 “#” when the rated voltage is 630VDC,the digit 4 5 is 2J.
 3. “****”表示内部特征码。 “****” = Internal use
 4. “I_{rms}”测试条件:环境温度70°C,频率100kHz,外壳温度达到85°C下的有效值。
 “I_{rms}” at 100kHz,+70°C for case operating T=+85°C.
 5. “ESR”、“ESL”均为典型值。 “ESR”、“ESL” are typical values.