

C54 系列 SERIES

■ 外形图 Outline Drawing

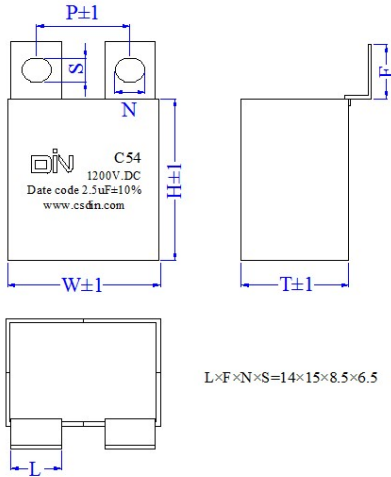


图1 (Style1)

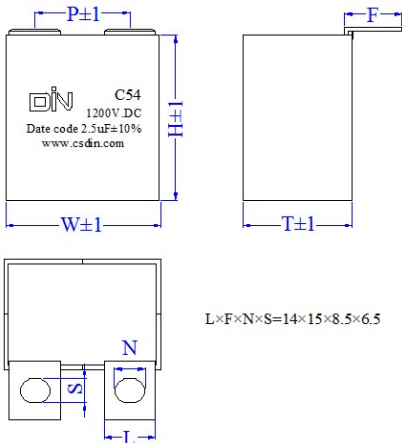


图2 (Style2)

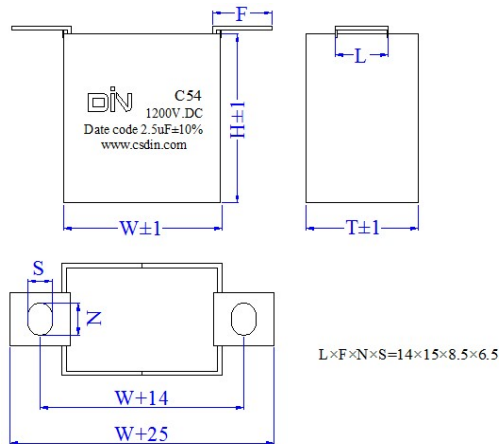


图3 (Style3)

■ 特点

- 塑料外壳封装，阻燃（UL 94V-0 级）树脂灌封
- 等效串联电阻小，自感小
- 损耗小，内部温升小

■ 主要用途

- 高压脉冲，高频应用
- 适合作为IGBT的吸收电容

■ Features

- Plastic case, epoxy resin sealing (UL 94V-0)
- Low ESR, Low ESL
- Low loss and small inherent temperature rise

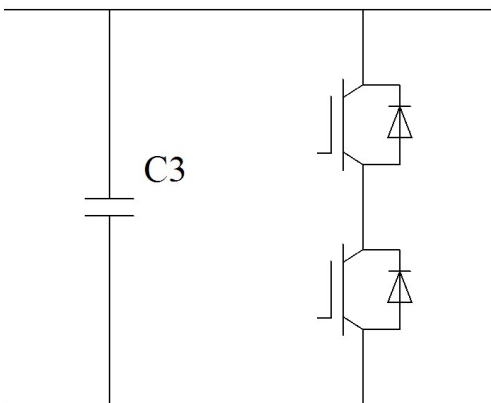
■ Typical application

- For high pulse and high frequency application
- Especially designed as snubber capacitor for IGBT

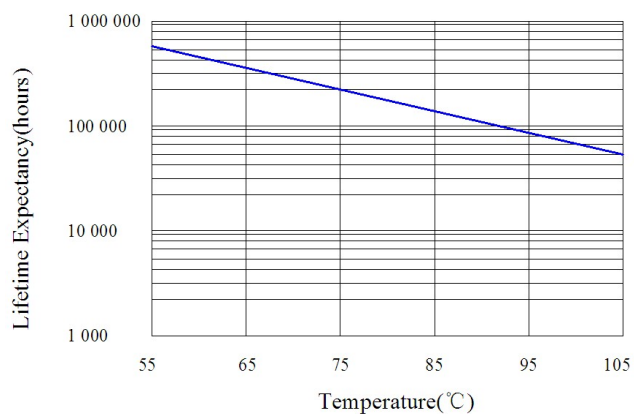
■ **技术参数 Technical Specifications**

项目 Items	性能要求 Characteristics
引用标准/Reference standards	GB/T 17702 IEC 61071
容量范围/Capacitance	0.047 μ F ~9.0 μ F
额定电压/Rated Voltage	630V.DC~3000V.DC
容量偏差/Tolerance	$\pm 5\%$ $\pm 10\%$
损耗角正切/Dissipation factor	$\text{tg}\delta \leq 10 \times 10^{-4}$ at 25 $^{\circ}$ C $\pm 5^{\circ}$ C,1KHz
绝缘电阻/Insulation resistance	$C \cdot R \geq 5000\text{S}$,at500V.DC,25 $^{\circ}$ C $\pm 5^{\circ}$ C,60s
工作温度范围/Operating temperature range	-40 $^{\circ}$ C ~85 $^{\circ}$ C
极间耐电压/Test voltage between terminals	1.5Un (10S,25 $^{\circ}$ C $\pm 5^{\circ}$ C)
极壳耐电压/Test voltage between terminals and case	3000V.AC(10S,50/60Hz,25 $^{\circ}$ C $\pm 5^{\circ}$ C)
最高使用海拔/Max Altitude	2000m
预期寿命/Expected lifetime	100 000hrs @ Un,0hs=70 $^{\circ}$ C
失效率/Failure rate	100FIT

■ **典型线路/Typical circuit**



■ **预期寿命曲线/ Expected lifetime curve**



■ 产品编码说明/Part number code system

▲ 18 位产品代码如下:

▲ The 18 digits part number is formed as follow:

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

1~3 位: 型号代码

Digit 1~3: Series code

4~6 位: 标称容量

Digit 4~6: Rated capacitance value

如: 104=10×10⁴PF=0.1uF

Example: 104=10×10⁴PF=0.1uF

7~10 位: 内部特征码

Digit 7~10: Internal use

11 位: 容量偏差

Digit 11: Capacitance tolerance

J=±5%、K=±10%、M=±20%

J=±5%、K=±10%、M=±20%

12~13 位: 额定电压

Digit 12~13: Rated voltage

25=630V、29=850V、3A=1000V

25=630V、29=850V、3A=1000V

3C=1200V、3H=1600、3K=2000V

3C=1200V、3H=1600、3K=2000V

3N=2500V、3S=3000V

3N=2500V、3S=3000V

14~17 位: 型体

Digit 14~17: Type

14位 Digit 14		15位 Digit 15		16、17位 Digit 16、17			
代码 Code	引出方式 Style of solder slice	代码 Code	插片类型 Specifications of solder slice	代码 Code	安装孔距 Distance of hole for fixing		引出方式 Style of solder slice
					P	焊片间距 The distance of solder slice	
A	图1 (Style 1)	1	双折插片 Double fold (L*F*N*S) 14*15*8.5*6.5	20	20	6	图1 (Style 1) 或 图2 (Style 2)
B	图2 (Style 2)			25	25	11	
C	图3 (Style 3)	2	单折插片 Single fold (L*F*N*S) 14*15*8.5*6.5	35	35	21	
				40	40	26	
				50	50	36	
				54	54	40	图3 (Style 3)
				68	68	54	

18 位: 外壳宽带

Digit18: Width of case

3=37.5mm 4=42.5mm 5=57.5mm

3=37.5mm 4=42.5mm 5=57.5mm

■ 标准品一览表 Standard size

静电容量 Cap(uF)	Outline size (mm)			dv/dt (V/us)	İ (A)	ESR @100kHz (mΩ)	I _{rms} @70°C/100KHZ (A)	L _s (nH)	Part number
	W	H	T						
Un: 630V.DC/700V.DC/420V.AC									
0.68	37.0	25.0	15.0	900	612	5.0	13	23	C54684****□25+*-3
1.0	“	30.0	16.0	“	900	“	14	“	C54105****□25+*-3
1.2	“	“	“	“	1080	4.5	16	“	C54125****□25+*-3
1.5	“	34.0	20.0	“	1350	“	17	“	C54155****□25+*-3
1.8	“	“	“	“	1620	“	18	“	C54185****□25+*-3
2.0	42.0	40.0	20.0	600	1200	4.0	18	29	C54205****□25+*-4
2.2	“	“	“	“	1320	“	18.5	“	C54225****□25+*-4
2.5	“	“	“	“	1500	“	19	“	C54255****□25+*-4
3.0	“	44.0	24.0	“	1800	“	20	“	C54305****□25+*-4
3.3	“	“	“	“	1980	3.5	20	“	C54335****□25+*-4
4.0	“	“	“	“	2400	“	21	“	C54405****□25+*-4
4.7	“	45.0	30.0	“	2820	“	23	“	C54475****□25+*-4
5.0	“	“	“	“	3000	3.0	23.5	“	C54505****□25+*-4
6.0	“	43.0	42.0	“	3600	“	25	“	C54605****□25+*-4
6.5	“	“	“	“	3900	“	26	“	C54655****□25+*-4
6.5	57.0	45.0	30.0	360	2340	2.5	24	33	C54655****□25+*-5
7.0	“	“	“	“	2650	“	25	“	C54705****□25+*-5
8.0	“	50.0	35.0	“	2880	“	27	“	C54805****□25+*-5
9.0	“	“	“	“	3240	“	29	“	C54905****□25+*-5
Un: 850V.DC /450V.AC									
0.47	37.0	25.0	15.0	1200	564	5.0	15	23	C54474****□29+*-3
0.68	“	30.0	16.0	“	816	“	16	“	C54684****□29+*-3
1.0	“	34.0	20.0	“	1200	“	17	“	C54105****□29+*-3
1.2	“	“	“	“	1440	“	17.5	“	C54125****□29+*-3
1.5	“	“	“	“	1800	“	18	“	C54155****□29+*-3
1.5	42.0	40.0	“	750	1125	4.5	18.5	29	C54155****□29+*-4
2.0	“	“	“	“	1500	“	19	“	C54205****□29+*-4
2.2	“	“	“	“	1650	“	19.5	“	C54225****□29+*-4
2.5	“	44.0	24.0	“	1875	“	20	“	C54255****□29+*-4
3.0	“	“	“	“	2250	“	21	“	C54305****□29+*-4
3.3	“	45.0	30.0	“	2475	“	21.5	“	C54335****□29+*-4
4.0	“	43.0	42.0	“	3000	“	22	“	C54405****□29+*-4
4.0	57.0	45.0	30.0	450	1800	4.0	23	33	C54405****□29+*-5
4.7	“	“	“	“	2115	“	24.5	“	C54475****□29+*-5
5.0	“	“	“	“	2250	“	25	“	C54505****□29+*-5
6.0	“	50.0	35.0	“	2700	“	26	“	C54605****□29+*-5
6.5	“	“	“	“	2925	“	27	“	C54655****□29+*-5

◇ 备注：特殊需要可根据客户要求另行设计

◇ Note: Special requirements can be designed according to customer requirements

■ 标准品一览表 Standard size

静电容量 Cap(uF)	Outline size (mm)			dv/dt (V/us)	\hat{i} (A)	ESR @100kHz (mΩ)	I _{rms} @70°C/100KHZ (A)	L _s (nH)	Part number
	W	H	T						
Un: 1000V.DC/500V.AC									
0.47	37.0	25.0	15.0	1300	611	5.0	14	23	C54474***I*□3A+*-3
0.47	32.0	29.0	19.0	2200	1034	4.0	21	15	C54474***H*□3A+*-3
0.68	37.0	30.0	16.0	1300	884	5.0	15	23	C54684****□3A+*-3
0.82	“	“	“	“	1066	“	16	“	C54824****□3A+*-3
1.0	“	34.0	20.0	“	1300	4.5	17	“	C54105****□3A+*-3
1.2	“	“	“	“	1560	“	“	“	C54125****□3A+*-3
1.2	42.0	40.0	20.0	850	1020	“	16	29	C54125****□3A+*-4
1.5	“	“	“	“	1275	“	“	“	C54155****□3A+*-4
2	“	44.0	24.0	“	1700	“	17	“	C54205****□3A+*-4
2.2	“	“	“	“	1870	4.0	20	“	C54225****□3A+*-4
2.5	“	45.0	30.0	“	2125	“	21	“	C54255****□3A+*-4
3.0	“	“	“	“	2550	“	21.5	“	C54305****□3A+*-4
3.3	“	43.0	42.0	“	2805	“	22	“	C54335****□3A+*-4
3.3	57.0	45.0	30.0	500	1650	“	20	33	C54335****□3A+*-5
4.0	“	“	“	“	2000	“	21	“	C54405****□3A+*-5
4.7	“	50.0	35.0	“	2350	“	22	“	C54475****□3A+*-5
5.0	“	“	“	“	2500	“	23	“	C54505****□3A+*-5
Un: 1200V.DC/600V.AC									
0.33	37.0	25.0	15.0	1500	495	4.5	15	23	C54334****□3C+*-3
0.47	“	30.0	16.0	“	705	“	16	“	C54474****□3C+*-3
0.68	“	34.0	20.0	“	1020	“	17	“	C54684****□3C+*-3
0.75	“	“	“	“	1125	“	18	“	C54754****□3C+*-3
0.82	42.0	40.0	“	950	779	4.0	“	29	C54824****□3C+*-4
1.0	“	“	“	“	950	“	19	“	C54105****□3C+*-4
1.2	“	44.0	24.0	“	1140	“	19	“	C54125****□3C+*-4
1.5	“	“	“	“	1425	“	19.5	“	C54155****□3C+*-4
2.0	“	45.0	30.0	“	1900	“	20	“	C54205****□3C+*-4
2.2	“	43.0	42.0	“	2090	“	21	“	C54225****□3C+*-4
2.5	“	“	“	“	2375	“	22	“	C54255****□3C+*-4
2.2	57.0	45.0	30.0	600	1320	3.8	20	33	C54225****□3C+*-5
2.5	“	“	“	“	1500	“	21	“	C54255****□3C+*-5
3.0	“	“	“	“	1800	“	22	“	C54305****□3C+*-5
3.3	“	50.0	35.0	“	1980	“	23	“	C54335****□3C+*-5
4.0	“	“	“	“	2400	“	24	“	C54405****□3C+*-5

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◇ Note: Special requirements can be designed according to customer requirements

■ 标准品一览表 Standard size

静电容量 Cap(uF)	Outline size (mm)			dv/dt (V/us)	I _{hat} (A)	ESR @100kHz (mΩ)	I _{rms} @70°C/100KHZ (A)	L _s (nH)	Part number
	W	H	T						
Un: 1600V.DC/650V.AC									
0.22	37.0	25.0	15.0	1900	418	6.0	15	23	C54224****□3H+*--3
0.33	“	30.0	16.0	“	617	“	15.5	“	C54334****□3H+*--3
0.39	“	34.0	20.0	“	741	5.5	16	“	C54394****□3H+*--3
0.47	“	“	“	“	896	“	17	“	C54474****□3H+*--3
0.68	42.0	40.0	“	1250	850	4.0	18	29	C54684****□3H+*--4
0.82	“	44.0	24.0	“	1025	“	19	“	C54824****□3H+*--4
1.0	“	45.0	30.0	“	1250	“	19.5	“	C54105****□3H+*--4
1.2	“	“	“	“	1500	“	20	“	C54125****□3H+*--4
1.5	“	43.0	42.0	“	1875	“	21	“	C54155****□3H+*--4
1.5	57.0	45.0	30.0	750	1125	3.5	22	33	C54155****□3H+*--5
2.0	“	50.0	35.0	“	1500	“	24	“	C54205****□3H+*--5
Un: 1700V.DC/675V.AC									
0.15	37.0	25.0	15.0	2000	300	7.0	14	23	C54154****□3I+*--3
0.22	“	30.0	16.0	“	440	6.0	15	“	C54224****□3I+*--3
0.33	“	34.0	20.0	“	660	5.5	15.5	“	C54334****□3I+*--3
0.39	“	“	“	“	780	5.5	16	“	C54394****□3I+*--3
0.47	42.0	36.0	24.0	1260	592	4.0	16	29	C54474****□3I+*--4
0.56	“	“	“	“	706	“	17	“	C54564****□3I+*--4
0.68	“	44.0	“	“	857	3.5	18	“	C54684****□3I+*--4
0.82	“	“	“	“	1033	“	19	“	C54824****□3I+*--4
1.0	“	45.0	30.0	“	1260	“	20	“	C54105****□3I+*--4
1.2	“	43.0	42.0	“	1512	“	21	“	C54125****□3I+*--4
1.0	57.0	45.0	25.0	780	780	“	18	33	C54105****□3I+*--5
1.2	“	43.5	29.5	“	936	“	19	“	C54125****□3I+*--5
1.5	“	50.0	35.0	“	1170	“	22	“	C54155****□3I+*--5
2.0	“	“	“	“	1560	3.0	24	“	C54205****□3I+*--5
3.0	“	55.0	45.0	“	2340	“	28	“	C54305****□3I+*--5

◇ 备注：特殊需要可根据客户要求另行设计

◇ Note: Special requirements can be designed according to customer requirements

■ 标准品一览表 Standard size

静电容量 Cap(uF)	Outline size (mm)			dv/dt (V/us)	İ (A)	ESR @100kHz (mΩ)	Irms @70°C/100KHZ (A)	Ls (nH)	Part number
	W	H	T						
Un: 2000V.DC/700V.AC									
0.10	37.0	25.0	15.0	2241	224	8.0	14	23	C54104****□3K+--3
0.15	“	“	“	“	336	8.0	15	“	C54154****□3K+--3
0.22	“	30.0	16.0	“	493	6.0	15.5	“	C54224****□3K+--3
0.33	“	34.0	20.0	“	740	6.0	16	“	C54334****□3K+--3
0.47	42.0	40.0	20.0	1300	611	4.0	17	29	C54474****□3K+--4
0.56	“	44.0	24.0	“	728	4.0	18	“	C54564****□3K+--4
0.68	“	“	“	“	884	3.5	18.5	“	C54684****□3K+--4
0.82	“	45.0	30.0	“	1066	3.5	19	“	C54824****□3K+--4
1.0	“	43.0	42.0	“	1300	3.5	21	“	C54105****□3K+--4
1.0	57.0	45.0	30.0	850	850	4.0	24	33	C54105****□3K+--5
1.2	“	“	“	“	1020	4.0	23	“	C54125****□3K+--5
1.5	“	50.0	35.0	“	1275	4.0	24	“	C54155****□3K+--5
Un: 2500V.DC/725V.AC									
0.068	37.0	25.0	15.0	3230	220	8.5	14	23	C54683****□3N+--3
0.10	“	30.0	16.0	“	323	“	15	“	C54104****□3N+--3
0.15	“	34.0	20.0	“	485	8.0	16	“	C54154****□3N+--3
0.18	“	“	“	“	581	7.5	17	“	C54184****□3N+--3
0.22	42.0	40.0	“	2100	462	4.0	“	29	C54224****□3N+--4
0.33	“	44.0	24.0	“	693	“	17.5	“	C54334****□3N+--4
0.47	“	45.0	30.0	“	987	3.5	18	“	C54474****□3N+--4
0.68	“	43.0	42.0	“	1428	“	18.5	“	C54684****□3N+--4
0.68	57.0	45.0	30.0	1200	816	“	19	33	C54684****□3N+--5
1.0	“	50.0	35.0	“	1200	“	18.5	“	C54105****□3N+--5
Un: 3000V.DC/750V.AC									
0.047	37.0	25.0	15.0	3361	158	8.5	13	23	C54473****□3S+--3
0.068	“	30.0	16.0	“	229	8.0	14	“	C54683****□3S+--3
0.10	“	34.0	20.0	“	336	7.5	15	“	C54104****□3S+--3
0.15	“	“	“	“	504	7.0	15.5	“	C54154****□3S+--3
0.22	42.0	40.0	“	2050	451	5.0	16	29	C54224****□3S+--4
0.33	“	45.0	30.0	“	677	4.5	16.5	“	C54334****□3S+--4
0.47	“	43.0	42.0	“	964	4.0	18	“	C54474****□3S+--4
0.47	57.0	45.0	30.0	1200	564	“	18.5	33	C54474****□3S+--5
0.68	“	50.0	35.0	“	816	“	19	“	C54684****□3S+--5
0.82	“	“	“	“	984	3.5	20	“	C54824****□3S+--5

- ◇ 备注：特殊需要可根据客户要求另行设计
- ◇ Note: Special requirements can be designed according to customer requirements
- ◇ 1.“****”表示内部特征码；“****”=Internal use
- ◇ 2.“□”表示容量偏差；“□”= Capacitance tolerance
- ◇ 3.“+”表示引出方式；“+”= Style of solder slice
- ◇ 4.“*”表示引出端型体；“*”= Specifications of terminals
- ◇ 5.“—”表示脚距；“—”= Pitch