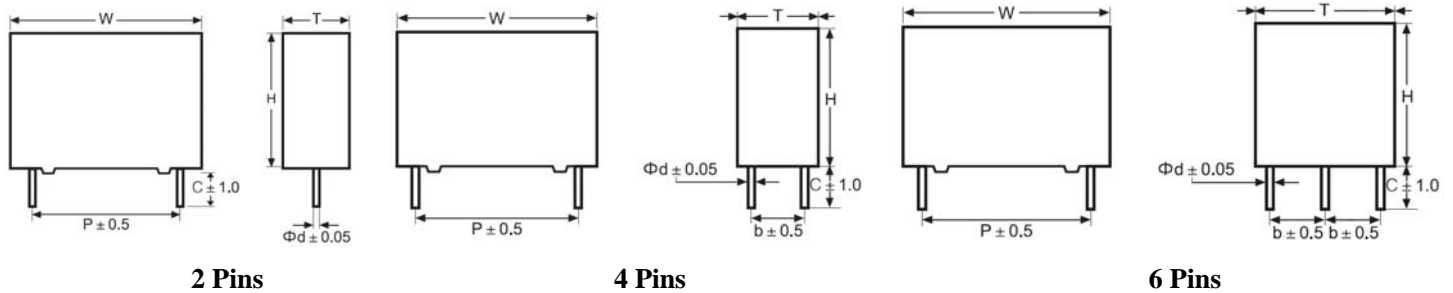


PCB 用 DC-Link 电容器 DC-Link Capacitor for PCB

■外形图 Outline Drawing



■ 特点和应用场合

- 超薄型，低高度，安全膜设计
- 高耐纹波电流，低 ESR、ESL
- 塑料外壳封装 (UL94 V-0)，树脂填充。
- 良好的自愈特性
- 高性能直流滤波应用场合

(如：变频器、光伏逆变器、LED 路灯照明、工业和高端电源、车载充电器等)

■ Features and Applications

- Slim line, low building height, Segmented metallized-film design
- High ripple current capability, low ESR, low ESL
- Plastic case (UL94 V-0), Filled with resin.
- Self-healing property
- High performance DC filtering applications

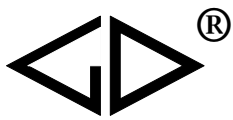
(Frequency converters, PV micro inverters, LED street lighting, Industrial and high-end power supplies, On board chargers (EV/HEV))

■ 技术要求 Specifications

引用标准	Reference Standard	IEC 61071, GB/T17702
气候类别	Climatic Category	40/85/56
工作温度范围	Operating Temperature Range	-40°C~105°C ($\Theta_{hs} \leq 105^\circ\text{C}$) $\Theta_{hs} = 85^\circ\text{C} \sim 105^\circ\text{C}$: decreasing factor 1.5% per °C for U_N (dc)
容量偏差	Capacitance Tolerance	J ($\pm 5\%$), K ($\pm 10\%$)
容量范围	Capacitance Range	1.5 μF ~100 μF
耐电压	Voltage Proof	1.5 U_N (10s, 20°C \pm 5°C)
绝缘电阻	Insulation Resistance ($IR \times C_N$)	$\geq 10\ 000\text{s}$ (20°C, 100Vdc, 1min)
自感 (Ls)	Self Inductance(Ls)	<1nH per mm of lead spacing
最大峰值电流 \hat{I} (A) Maximum peak current \hat{I} (A)		$\hat{I} = C_N \cdot dV/dt$
工作寿命	Operation life time	100 000h at U_N , $\Theta_{hs} = 70^\circ\text{C}$

直流电压等级 DC Voltage Ratings

额定电压 Rated Voltage $U_{N,85^\circ\text{C}}$	500V	700V	1 000V	1 200V
工作电压 Operating Voltage $U_{OPDC, 70^\circ\text{C}}$	600V	840V	1 200V	1 440V
工作电压 Operating Voltage $U_{OPDC, 105^\circ\text{C}}$	350V	490V	700V	840V



C3D(R)

产品编码说明 Part number code system

18 位产品代码如下:

The 15 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	D															

第 1~3 位	型号代码 C3D	Digit 1 to 3	Series code C3D
第 4~5 位	直流额定电压 2H=500V 1V=700V 3A=1000V 3L=1200V	Digit 4 to 5	D.C. rated voltage 2H=500V 1V=700V 3A=1000V 3L=1200V
第 6~8 位	标称容量 举例: 256=25×10 ⁶ pF=25.0μF	Digit 6 to 8	Rated capacitance value For example : 256=25×10 ⁶ pF=25.0μF
第 9 位	容量等级 J=±5%,K=±10%	Digit 9	Capacitance tolerance J=±5%,K=±10%
第 10 位	引线间距 P B=27.5 mm F=37.5 mm M=52.5 mm	Digit10	Pitch B=27.5 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 to 15	Lead form and packaging code
第 16~18 位	内部特征码	Digit 16 to 18	Internal use

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

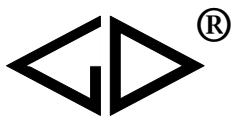
第 12 位 Digit 12		第 13 和第 14 位 Digit 13 and Digit 14		第 15 位 Digit 15	
代码 Code	说明 explanation	代码 Code	说明 explanation	代码 Code	说明 explanation
0	2 引线散装 Two pins(bulk)	C0	标准引线长度 5.5mm standard lead length 5.5mm	0	引线长度偏差±1.0mm Length tolerance ±1.0mm
1	4 引线散装 four pins(bulk) b=10.0mm				
2	4 引线散装 four pins(bulk) b=12.7mm				
3	4 引线散装 four pins(bulk) b=20.0mm				
4	4 引线散装 four pins(bulk) b=15.0mm				
A	4 引线散装 four pins(bulk) b=20.3mm				
B	4 引线散装 four pins(bulk) b=10.2mm				
C	4 引线散装 four pins(bulk) b=5.1mm				
D	4 引线散装 four pins(bulk) b=15.2mm				
G	6 引线散装 xis pins(bulk) b=20.3mm				

■ 技术参数 Technical data (mm)

U _{N,85°C} : 500 Vdc, U _{N,70°C} : 600 Vdc													
HEIGHT (mm)	C _N (μF)	W ±1.0	H ±1.0	T ±1.0	P ±0.5	b ±0.5	d ±0.05	î (A)	tgδ × (10 ⁻⁴)		ESR @10kHz (mΩ)	I _{max} (A)	Part number
									1kHz	10kHz			
12	5	32	12	24	27.5	-	0.8	107	10	85	20.0	3.8	C3D2H505+BA0C00***
15	7	32	15	27	27.5	-	0.8	150	10	85	14.5	4.8	C3D2H705+BB0C00***
	10	42	15	27	37.5	10.2	1.0	148	20	150	16.2	5.1	C3D2H106+FBBC00***
	15	42	15	33	37.5	10.2	1.0	223	20	150	11.0	6.7	C3D2H156+FBBC00***
	20	57	15	33	52.5	20.3	1.2	200	33	300	15.4	6.4	C3D2H206+MBAC00***
	30	57	15	45	52.5	20.3	1.2	301	33	300	10.5	8.8	C3D2H306+MBAC00***
	50 [Ⓞ]	57	15	62	52.5	20.3	1.2	501	33	300	6.6	12.8	C3D2H506+MBGC00***
18	10	42	18	24	37.5	10.2	1.0	148	20	150	16.2	5.1	C3D2H106+FCBC00***
	15	42	18	27	37.5	10.2	1.0	223	20	150	11.0	6.4	C3D2H156+FCBC00***
	20	42	18	39	37.5	10.2	1.0	297	20	150	8.4	8.4	C3D2H206+FCBC00***
	30	57	18	35	52.5	20.3	1.2	301	33	300	20.8	5.8	C3D2H306+MCAC00***
	50	57	18	50	52.5	20.3	1.2	501	33	300	12.8	8.5	C3D2H506+MCAC00***
24	20	42	24	30	37.5	10.2	1.0	297	20	150	8.4	8.2	C3D2H206+FFBC00***
	30	42	24	39	37.5	10.2	1.0	445	20	150	5.8	10.8	C3D2H306+FFBC00***
	50	57	24	39	52.5	20.3	1.2	501	33	300	12.8	8.2	C3D2H506+MFAC00***
	100 [Ⓞ]	57	24	70	52.5	20.3	1.2	1002	33	300	6.7	14.2	C3D2H107+MFGC00***

U _{N,85°C} : 700 Vdc, U _{N,70°C} : 800 Vdc													
HEIGHT (mm)	C _N (μF)	W ±1.0	H ±1.0	T ±1.0	P ±0.5	b ±0.5	d ±0.05	î (A)	tgδ × (10 ⁻⁴)		ESR @10kHz (mΩ)	I _{max} (A)	Part number
									1kHz	10kHz			
12	3	32	12	24	27.5	-	0.8	81	10	65	25.1	3.3	C3D1V305+BA0C00***
15	5	32	15	27	27.5	-	0.8	135	10	65	15.4	4.7	C3D1V505+BB0C00***
	7	42	15	27	37.5	10.2	1.0	131	20	120	17.7	4.9	C3D1V705+FBBC00***
	10	42	15	33	37.5	10.2	1.0	187	20	120	12.6	6.2	C3D1V106+FBBC00***
	15	57	15	33	52.5	20.3	1.2	189	33	270	9.9	8.0	C3D1V156+MBAC00***
	20	57	15	45	52.5	20.3	1.2	252	33	270	7.6	10.3	C3D1V206+MBAC00***
	30 [Ⓞ]	57	15	62	52.5	20.3	1.2	379	33	270	5.3	14.2	C3D1V306+MBGC00***
18	7	42	18	24	37.5	10.2	1.0	131	20	120	17.7	4.8	C3D1V705+FCBC00***
	10	42	18	27	37.5	10.2	1.0	187	20	120	12.6	6.0	C3D1V106+FCBC00***
	15	42	18	39	37.5	10.2	1.0	280	20	120	8.6	8.3	C3D1V156+FCBC00***
	20	57	18	35	52.5	20.3	1.2	252	33	270	10.1	8.3	C3D1V206+MCAC00***
	30	57	18	50	52.5	20.3	1.2	379	33	270	7.0	11.6	C3D1V306+MCAC00***
24	15	42	24	30	37.5	10.2	1.0	280	20	120	8.6	8.1	C3D1V156+FFBC00***
	20	42	24	39	37.5	10.2	1.0	374	20	120	6.6	10.1	C3D1V206+FFBC00***
	30	57	24	39	52.5	20.3	1.2	379	33	270	7.0	11.0	C3D1V306+MFAC00***
	50 [Ⓞ]	57	24	70	52.5	20.3	1.2	631	33	270	4.5	17.3	C3D1V506+MFGC00***

- 备注: 1. “+”表示容量偏差, M=±20%,K=±10%,J=±5%. “+”=capacitance tolerance code M=±20%,K=±10%,J=±5%.
2. 当“b=10.2mm”时,第12位代码为“B”;当“b=20.3mm”时,第12位代码为“A”;6引线的b值都是20.3mm,第12位代码为“G”.
When the b=10.2mm, the digit 12 is “B”; When the b=20.3mm, the digit 12 is “A”; When 6 pins b=20.3mm, the digit 12 is “G”.
3. “I_{max}”是在 f=10kHz, Θ_{amb}=70°C, ΔΘ_{case}=15.0°C的最大电流有效值.
“I_{max}” = Maximum rms current at 10kHz, Θ_{amb}=70°C, ΔΘ_{case}=15.0°C.
4. “Ⓞ”表示6引线. “Ⓞ” means 6 pins.



C3D(R)

■ 技术参数 Technical data (mm)

U _{N,85°C} : 1 000 Vdc, U _{N,70°C} : 1 200 Vdc													
HEIGHT (mm)	C _N (μF)	W ±1.0	H ±1.0	T ±1.0	P ±0.5	b ±0.5	d ±0.05	î (A)	tgδ×(10 ⁻⁴)		ESR @10kHz (mΩ)	I _{max} (A)	Part number
									1kHz	10kHz			
12	2	32	12	24	27.5	-	0.8	71	10	65	27.2	3.2	C3D3A205+BA0C00***
15	5	42	15	27	37.5	10.2	1.0	124	10	65	18.1	4.8	C3D3A505+FBBC00***
	7	42	15	33	37.5	10.2	1.0	173	20	120	13.1	6.1	C3D3A705+FBBC00***
	10	57	15	33	52.5	20.3	1.2	167	20	120	17.5	6.0	C3D3A106+MBAC00***
	15	57	15	45	52.5	20.3	1.2	250	33	270	11.8	8.3	C3D3A156+MBAC00***
	20 [Ⓞ]	57	15	62	52.5	20.3	1.2	334	33	270	9.0	10.8	C3D3A206+MBGC00***
18	3	42	18	24	37.5	10.2	1.0	74	20	120	29.6	3.7	C3D3A305+FCBC00***
	5	42	18	27	37.5	10.2	1.0	124	20	120	18.1	5.0	C3D3A505+FCBC00***
	7	42	18	39	37.5	10.2	1.0	173	20	120	13.1	6.8	C3D3A705+FCBC00***
	10	42	18	39	37.5	10.2	1.0	247	20	120	9.3	8.0	C3D3A106+FCBC00***
	15	57	18	50	52.5	20.3	1.2	250	33	270	9.9	9.7	C3D3A156+MCAC00***
	20	57	18	50	52.5	20.3	1.2	334	33	270	7.6	11.1	C3D3A206+MCAC00***
24	7	42	24	30	37.5	10.2	1.0	173	20	120	13.1	6.5	C3D3A705+FFBC00***
	10	42	24	39	37.5	10.2	1.0	247	20	120	9.3	8.4	C3D3A106+FFBC00***
	15	57	24	39	52.5	20.3	1.2	250	33	270	11.8	8.4	C3D3A156+MFAC00***
	20	57	24	39	52.5	20.3	1.2	334	33	270	7.6	10.5	C3D3A206+MFAC00***
	30 [Ⓞ]	57	24	70	52.5	20.3	1.2	501	33	270	5.3	15.9	C3D3A306+MFGC00***

U _{N,85°C} : 1 200 Vdc, U _{N,70°C} : 1 400 Vdc													
HEIGHT (mm)	C _N (μF)	W ±1.0	H ±1.0	T ±1.0	P ±0.5	b ±0.5	d ±0.05	î (A)	tgδ×(10 ⁻⁴)		ESR @10kHz (mΩ)	I _{max} (A)	Part number
									1kHz	10kHz			
12	1.5	32	12	24	27.5	-	0.8	65	7	55	28.9	3.1	C3D3L155+BA0C00***
15	3	42	15	27	37.5	10.2	1.0	91	7	55	23.9	4.2	C3D3L305+FBBC00***
	4	42	15	33	37.5	10.2	1.0	121	13	100	18.1	5.2	C3D3L405+FBBC00***
	6	57	15	33	52.5	20.3	1.2	122	13	100	23.2	5.2	C3D3L605+MBAC00***
	9	57	15	45	52.5	20.3	1.2	184	24	200	15.7	7.2	C3D3L905+MBAC00***
	12 [Ⓞ]	57	15	62	52.5	20.3	1.2	245	24	200	11.9	9.4	C3D3L126+MBGC00***
18	3	42	18	24	37.5	10.2	1.0	91	13	100	23.9	4.2	C3D3L305+FCBC00***
	4	42	18	27	37.5	10.2	1.0	121	13	100	18.1	5.0	C3D3L405+FCBC00***
	7	42	18	39	37.5	10.2	1.0	212	13	100	10.6	7.5	C3D3L705+FCBC00***
	13	57	18	50	52.5	20.3	1.2	265	24	200	9.2	10.0	C3D3L136+MCAC00***
24	6	42	24	30	37.5	10.2	1.0	181	13	100	12.3	6.7	C3D3L605+FFBC00***
	15	57	24	39	52.5	20.3	1.2	306	24	200	8.1	10.2	C3D3L156+MFAC00***
	25 [Ⓞ]	57	24	70	52.5	20.3	1.2	510	24	200	5.1	16.1	C3D3L256+MFGC00***

- 备注: 1. “+”表示容量偏差, M=±20%,K=±10%,J=±5%. “+”=capacitance tolerance code M=±20%,K=±10%,J=±5%.
2. 当“b=10.2mm”时,第12位代码为“B”;当“b=20.3mm”时,第12位代码为“A”;6引线的b值都是20.3mm,第12位代码为“G”.
When the b=10.2mm, the digit 12 is “B”; When the b=20.3mm, the digit 12 is “A”; When 6 pins b=20.3mm, the digit 12 is “G”.
3. “I_{max}”是在f=10kHz, Θ_{amb}=70°C, ΔΘ_{case}=15.0°C的最大电流有效值.
“I_{max}” = Maximum rms current at 10kHz, Θ_{amb}=70°C, ΔΘ_{case}=15.0°C.
4. “Ⓞ”表示6引线. “Ⓞ” means 6 pins.