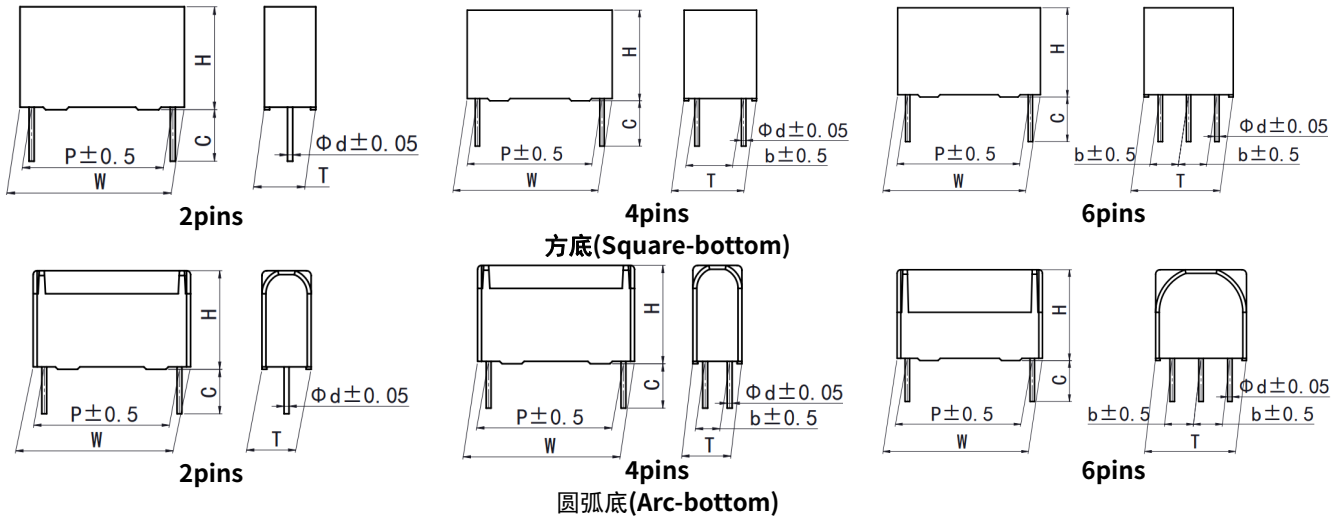


C3D (R)

低高度设计 PCB 用 DC-Link 电容器 Low building height DC-Link Capacitor for PCB

外形图 Outline Drawing



特点

- 超薄型, 低高度, 安全膜设计
- 高耐纹波电流, 低 ESR、L_s
- 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、工业和高端电源、太阳能逆变器等)

Features

- Slim line, low building height, segmented metallized-film design
- High ripple current capability, low ESR, low L_s
- Plastic case (UL94 V-0), filled with resin
- Self-healing property
- High performance DC filtering applications (i.e. transducers, industrial and high-end power supplies and solar inverters)

安全认证 Safety Approvals

●		TUV Rheinland (德国)	EN 61071: 2007, EN 61881-1: 2011, 450Vdc~3 200Vdc, 0.56μF~220μF, -40°C/85°C 证书号 (Certificate No.): R 50266108
●		UL (美国)	UL 810 (construction only), Max. 5 000Vdc, 90°C 证书号 (File No.): E256238, CCN: CZDS2

技术要求 Specifications

引用标准 Reference Standard	GB/T 17702 (IEC 61071)			
气候类别 Climatic Category	40/85/56			
工作温度范围 Operating temperature Range	-40°C~105°C θ _{hs} = +85°C ~ +105°C: decreasing factor 1.5% per °C for U _{N,85°C}			
额定电压 (U _{N,85°C}) Rated Voltage (U _{N,85°C})	500V	700V	1 000V	1 200V
工作电压 Operating Voltage U _{OPDC, 105°C}	350V	490V	700V	840V
电容量偏差 Capacitance Tolerance	±5% (J), ±10% (K)			
电容量范围 Capacitance Range	1.5μF~100μF			
耐电压 Voltage Proof	1.5U _N (10s)			
绝缘电阻 Insulation Resistance (IR×C _N)	≥10 000s (20°C, 100Vdc, 1min)			
自感 (L _s) Self Inductance (L _s)	<1nH per mm of lead spacing			
最大峰值电流 î (A) Maximum peak current î (A)	î = C · dV/dt			
预期寿命 Expected lifetime	100 000h @ U _N , θ _{hs} = 70°C			



■ 产品编码说明 Part number system

■ 15 位产品代码如下:

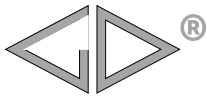
The 15 digits part number is formed as follow:

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

第 1~3 位	型号代码	Digit 1 to 3	Series code
	C3D		C3D
第 4~5 位	直流额定电压	Digit 4 to 5	D.C. rated voltage
	2H=500V 1V=700V		2H=500V 1V=700V
	3A=1 000V 3L=1 200V		3A=1 000V 3L=1 200V
第 6~8 位	标称容量	Digit 6 to 8	Rated capacitance value
	举例: 256=25 × 10 ⁶ pF=25.0μF		for example: 256=25 × 10 ⁶ pF=25.0μF
第 9 位	容量偏差	Digit 9	Capacitance tolerance
	J=±5%, K=±10%		J=±5%, K=±10%
第 10 位	引线脚距 P	Digit 10	Pitch
	B=27.5mm F=37.5mm M=52.5mm		B=27.5mm F=37.5mm M=52.5mm
第 11 位	内部特征码	Digit 11	Internal use
第 12~15 位	引线加工和包装代码	Digit 12 to 15	Lead form and packaging code

■ 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
0	2 引线 Two pins	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 Four pins b=10.0mm				
2	4 引线 Four pins b=12.7mm				
3	4 引线 Four pins b=20.0mm				
4	4 引线 Four pins b=15.0mm				
A	4 引线 Four pins b=20.3mm				
B	4 引线 Four pins b=10.2mm				
C	4 引线 Four pins b=5.1mm				
D	4 引线 Four pins b=15.2mm				
G	6 引线 Six pins b=20.3mm				



C3D (R)

■ 技术参数 Technical data(mm)

U _{N, 85°C} : 500 Vdc													
HEIGHT (mm)	C _N (μF)	W ±1.0	H ±1.0	T ±1.0	P ±0.5	b ±0.5	d ±0.05	dV/dt (V/μs)	tanδ × (10 ⁻⁴)		ESR @10kHz (mΩ)	I _{max} (A)	Part number
									1kHz	10kHz			
12	★ 5	32	12	24	27.5	-	0.8	20	10	85	20.0	3.8	C3D2H505+BA0C00
15	★ 7	32	15	27	27.5	-	0.8	20	10	85	14.5	4.8	C3D2H705+BB0C00
	10	42	15	27	37.5	10.2	1.0	15	20	150	16.2	5.1	C3D2H106+FBBC00
	★ 15	42	15	33	37.5	10.2	1.0	15	20	150	11.0	6.7	C3D2H156+FBBC00
	★ 20	57	15	33	52.5	20.3	1.2	10	33	300	15.4	6.4	C3D2H206+MBAC00
	★ 30	57	15	45	52.5	20.3	1.2	10	33	300	10.5	8.8	C3D2H306+MBAC00
	★ 50 ^⑥	57	15	62	52.5	20.3	1.2	10	33	300	6.6	12.8	C3D2H506+MBGC00
18	★ 10	42	18	24	37.5	10.2	1.0	15	20	150	16.2	5.1	C3D2H106+FCBC00
	★ 15	42	18	27	37.5	10.2	1.0	15	20	150	11.0	6.4	C3D2H156+FCBC00
	★ 20	42	18	39	37.5	10.2	1.0	15	20	150	8.4	8.4	C3D2H206+FCBC00
	★ 30	57	18	35	52.5	20.3	1.2	11	33	300	20.8	5.8	C3D2H306+MCAC00
	50	57	18	50	52.5	20.3	1.2	11	33	300	12.8	8.5	C3D2H506+MCAC00
24	★ 20	42	24	30	37.5	10.2	1.0	15	20	150	8.4	8.2	C3D2H206+FFBC00
	★ 30	42	24	39	37.5	10.2	1.0	15	20	150	5.8	10.8	C3D2H306+FFBC00
	★ 50	57	24	39	52.5	20.3	1.2	11	33	300	12.8	8.2	C3D2H506+MFAC00
	★ 100 ^⑥	57	24	70	52.5	20.3	1.2	11	33	300	6.7	14.2	C3D2H107+MFGC00

U _{N, 85°C} : 700 Vdc													
HEIGHT (mm)	C _N (μF)	W ±1.0	H ±1.0	T ±1.0	P ±0.5	b ±0.5	d ±0.05	dV/dt (V/μs)	tanδ × (10 ⁻⁴)		ESR @10kHz (mΩ)	I _{max} (A)	Part number
									1kHz	10kHz			
12	★ 3	32	12	24	27.5	-	0.8	25	10	65	25.1	3.3	C3D1V305+BA0C00
15	★ 5	32	15	27	27.5	-	0.8	25	10	65	15.4	4.7	C3D1V505+BB0C00
	7	42	15	27	37.5	10.2	1.0	19	20	120	17.7	4.9	C3D1V705+FBBC00
	★ 10	42	15	33	37.5	10.2	1.0	19	20	120	12.6	6.2	C3D1V106+FBBC00
	★ 15	57	15	33	52.5	20.3	1.2	13	33	270	9.9	8.0	C3D1V156+MBAC00
	★ 20	57	15	45	52.5	20.3	1.2	13	33	270	7.6	10.3	C3D1V206+MBAC00
	★ 30 ^⑥	57	15	62	52.5	20.3	1.2	13	33	270	5.3	14.2	C3D1V306+MBGC00
18	★ 7	42	18	24	37.5	10.2	1.0	19	20	120	17.7	4.8	C3D1V705+FCBC00
	★ 10	42	18	27	37.5	10.2	1.0	19	20	120	12.6	6.0	C3D1V106+FCBC00
	★ 15	42	18	39	37.5	10.2	1.0	19	20	120	8.6	8.3	C3D1V156+FCBC00
	★ 20	57	18	35	52.5	20.3	1.2	13	33	270	10.1	8.3	C3D1V206+MCAC00
	30	57	18	50	52.5	20.3	1.2	13	33	270	7.0	11.6	C3D1V306+MCAC00
24	★ 15	42	24	30	37.5	10.2	1.0	19	20	120	8.6	8.1	C3D1V156+FFBC00
	★ 20	42	24	39	37.5	10.2	1.0	19	20	120	6.6	10.1	C3D1V206+FFBC00
	★ 30	57	24	39	52.5	20.3	1.2	13	33	270	7.0	11.0	C3D1V306+MFAC00
	★ 50 ^⑥	57	24	70	52.5	20.3	1.2	13	33	270	4.5	17.3	C3D1V506+MFGC00



■ 技术参数 Technical data(mm)

U _{N,85°C} : 1 000 Vdc													
HEIGHT (mm)	C _N (μF)	W ±1.0	H ±1.0	T ±1.0	P ±0.5	b ±0.5	d ±0.05	dV/dt (V/μs)	tanδ×(10 ⁻⁴)		ESR @10kHz (mΩ)	I _{max} (A)	Part number
									1kHz	10kHz			
12	★ 2	32	12	24	27.5	-	0.8	33	10	65	27.2	3.2	C3D3A205+BA0C00
15	5	42	15	27	37.5	10.2	1.0	25	10	65	18.1	4.8	C3D3A505+FBBC00
	★ 7	42	15	33	37.5	10.2	1.0	25	20	120	13.1	6.1	C3D3A705+FBBC00
	★ 10	57	15	33	52.5	20.3	1.2	17	20	120	17.5	6.0	C3D3A106+MBAC00
	★ 15	57	15	45	52.5	20.3	1.2	17	33	270	11.8	8.3	C3D3A156+MBAC00
	★ 20 ^⑥	57	15	62	52.5	20.3	1.2	17	33	270	9.0	10.8	C3D3A206+MBGC00
18	★ 3	42	18	24	37.5	10.2	1.0	25	20	120	29.6	3.7	C3D3A305+FCBC00
	★ 5	42	18	27	37.5	10.2	1.0	25	20	120	18.1	5.0	C3D3A505+FCBC00
	★ 7	42	18	39	37.5	10.2	1.0	25	20	120	13.1	6.8	C3D3A705+FCBC00
	★ 10	42	18	39	37.5	10.2	1.0	25	20	120	9.3	8.0	C3D3A106+FCBC00
	15	57	18	50	52.5	20.3	1.2	17	33	270	9.9	9.7	C3D3A156+MCAC00
	20	57	18	50	52.5	20.3	1.2	17	33	270	7.6	11.1	C3D3A206+MCAC00
24	★ 7	42	24	30	37.5	10.2	1.0	25	20	120	13.1	6.5	C3D3A705+FFBC00
	★ 10	42	24	39	37.5	10.2	1.0	25	20	120	9.3	8.4	C3D3A106+FFBC00
	★ 15	57	24	39	52.5	20.3	1.2	17	33	270	11.8	8.4	C3D3A156+MFAC00
	★ 20	57	24	39	52.5	20.3	1.2	17	33	270	7.6	10.5	C3D3A206+MFAC00
	★ 30 ^⑥	57	24	70	52.5	20.3	1.2	17	33	270	5.3	15.9	C3D3A306+MFGC00

U _{N,85°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	dV/dt (V/μs)	tanδ×(10 ⁻⁴)		ESR @10kHz (mΩ)	I _{max} (A)	Part number
									1kHz	10kHz			
12	★ 1.5	32	12	24	27.5	-	0.8	40	7	55	28.9	3.1	C3D3L155+BA0C00
15	3	42	15	27	37.5	10.2	1.0	31	7	55	23.9	4.2	C3D3L305+FBBC00
	★ 4	42	15	33	37.5	10.2	1.0	31	13	100	18.1	5.2	C3D3L405+FBBC00
	★ 6	57	15	33	52.5	20.3	1.2	20	13	100	23.2	5.2	C3D3L605+MBAC00
	★ 9	57	15	45	52.5	20.3	1.2	20	24	200	15.7	7.2	C3D3L905+MBAC00
	★ 12 ^⑥	57	15	62	52.5	20.3	1.2	20	24	200	11.9	9.4	C3D3L126+MBGC00
18	★ 3	42	18	24	37.5	10.2	1.0	31	13	100	23.9	4.2	C3D3L305+FCBC00
	★ 4	42	18	27	37.5	10.2	1.0	31	13	100	18.1	5.0	C3D3L405+FCBC00
	★ 7	42	18	39	37.5	10.2	1.0	31	13	100	10.6	7.5	C3D3L705+FCBC00
	13	57	18	50	52.5	20.3	1.2	20	24	200	9.2	10.0	C3D3L136+MCAC00
24	★ 6	42	24	30	37.5	10.2	1.0	31	13	100	12.3	6.7	C3D3L605+FFBC00
	★ 15	57	24	39	52.5	20.3	1.2	20	24	200	8.1	10.2	C3D3L156+MFAC00
	★ 25 ^⑥	57	24	70	52.5	20.3	1.2	20	24	200	5.1	16.1	C3D3L256+MFGC00

- 备注 Note: 1. “+”表示容量偏差。 “+”=capacitance tolerance code, J=±5%, K=±10%.
2. 当“b=10.0mm”时,第12位代码为“1”;当“b=20.0mm”时,第12位代码为“3”。
When the b=10.0mm, the digit 12 is “1”; When the b=20.0mm, the digit 12 is “3”.
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 r.m.s current at 10kHz, θ_{amb}=70°C, Δθ_{case}=15.0°C.
4. “⑥”表示6引线。 “⑥” means 6 pins.
5. “★”表示外壳为圆弧底。 “★” = Arc-bottom of the outer shell.
6. “ESR”为典型值。 “ESR” are typical values.