

DC-Link Capacitor

C52



Characteristics

- Polypropylene film dielectric
- Plastic shell, encapsulation, dry resin infusion
- Leads with Tinned copper wire, small size, Easy installation.
- High pulse current and high dv/dt.
- Low ESL, low ESR,

Application

- Widely used in of DC-link circuit for energy storage.
- Can replace electrolytic capacitors, better performance and longer life.
- Pv inverter, wind power converter, All kinds of frequency converter and inverter power supply; Pure electric and hybrid cars; Charging pile, UPS, etc.

Technical Data

• Reference Standards	GB/T 17702 IEC 61071
• Operating Temperature Range	-40°C~+70°C TMax 105°C
• Capacitance Range	5.0µF~90µF
• Rated Voltage	500VDC~1200VDC
• Capacity Tolerance	±5%(J); ±10%(K)
• Test voltage between electrodes	1.5U _N (DC) 60S 25°C±5°C
• Test voltage between electrode and case	1000+2×U _N /√2(VAC) 50Hz 60S (min 3000VAC)
• Dissipation Factor	tgδ≤1.5×10 ⁻³ at 25°C±5°C, 100Hz
• Insulation Resistance	C•R≥5000S, at 100VDC, 25°C±5°C, 60S
• Flame retardation	UL94V-0
• Life Expectancy	100000h at U _N and ≤70°C

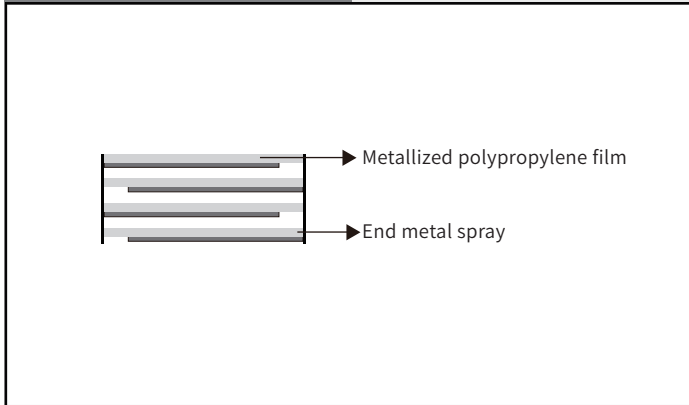
Overvoltage Operation

1.1×U _N	30% of on-load-dur.
1.15×U _N	30 min/day
1.2×U _N	5 min/day
1.3×U _N	1min/day
1.5×U _N	100ms every time, no more than 1000 times during the lifetime

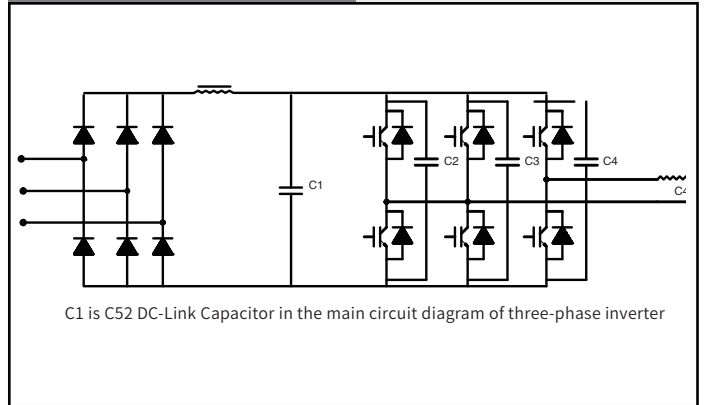
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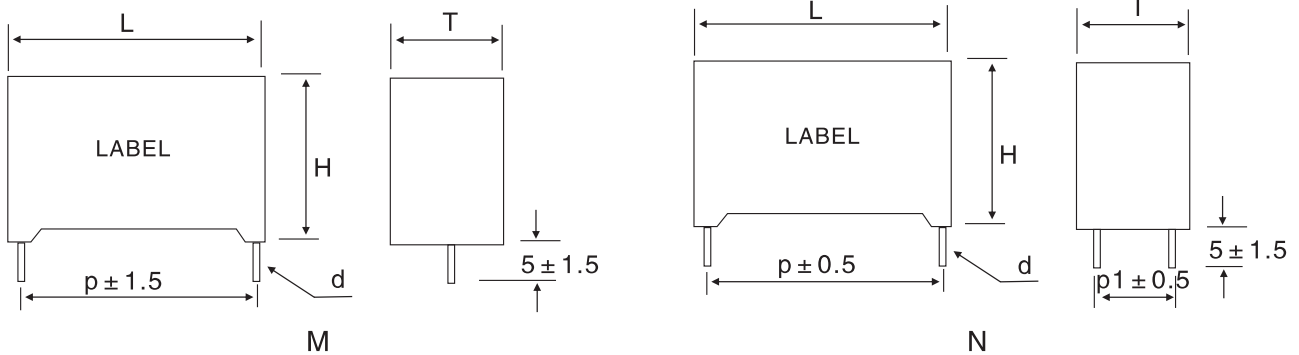
Construction Diagram



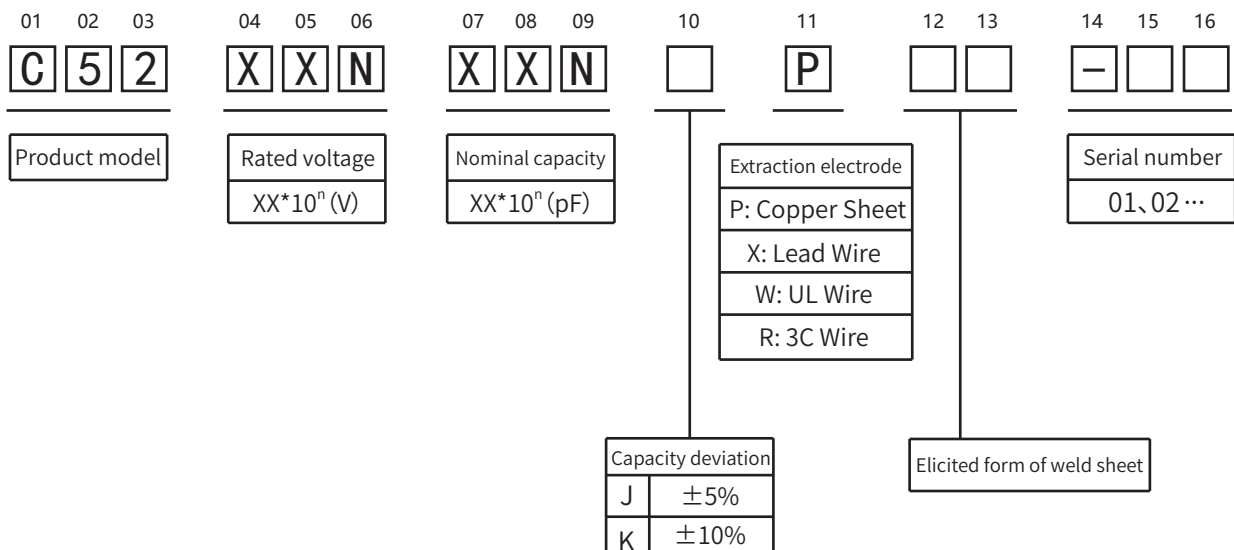
Typical Circuit



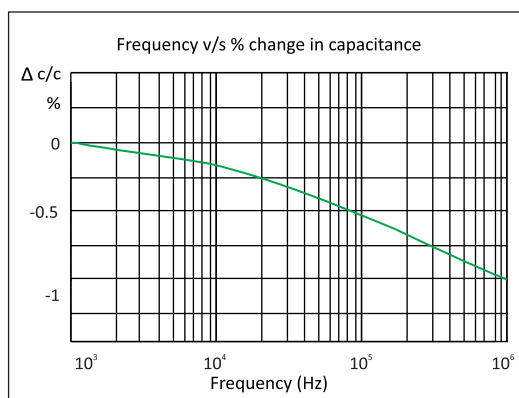
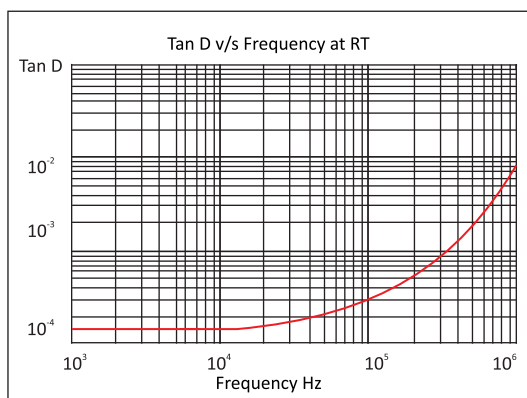
Product Shape



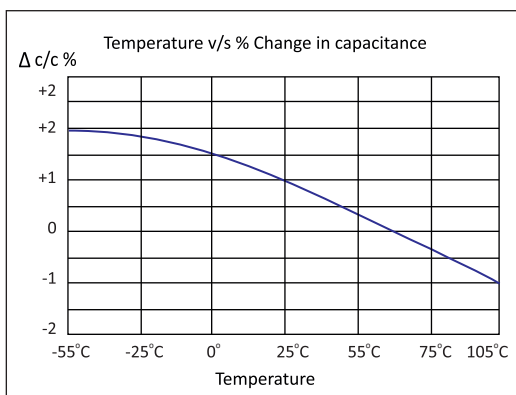
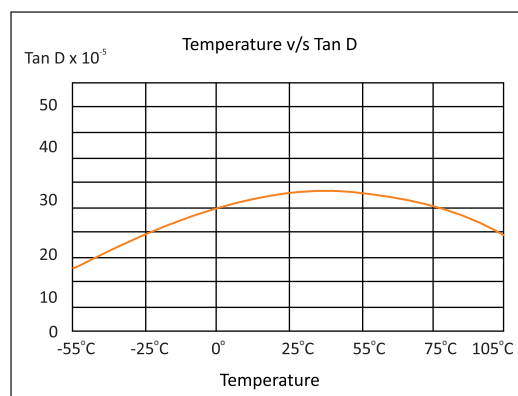
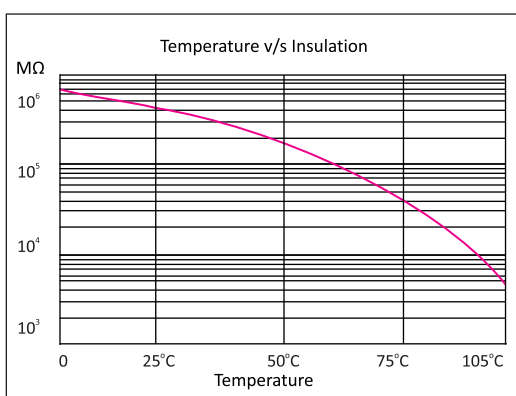
Product Coding



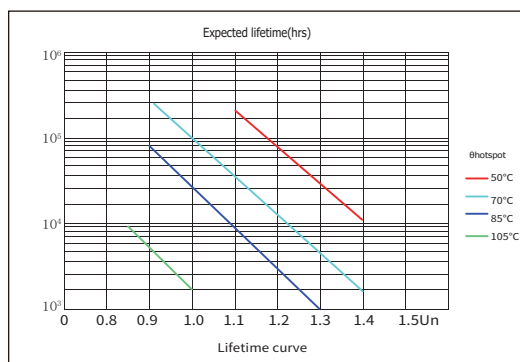
Temperature Characteristics



Frequency Characteristics



Life Expectancy



Article Table

Part Number	CAP μF	Dimension (mm)						dv/dt V/μs	I _{rms} max @10KHz A	ESR @10KHz (mΩ)
		L	T	H	P	P1	d			
Un 500Vdc										
C52501166KX#-**	16	42.5	24.5	27.5	37.5		1.2	20	10.0	7.0
C52501256KX#-**	25	42.5	28.0	37.0	37.5		1.2	20	12.0	4.2
C52501256KX#-**	25	42.5	28.0	37.0	37.5	10.0	1.2	20	14.0	4.2
C52501526KX#-**	35	42.5	30.0	45.0	37.5		1.2	20	12.0	3.0
C52501526KX#-**	35	42.5	30.0	45.0	37.5	20.0	1.2	20	17.0	2.5
C52501406KX#-**	40	42.5	33.0	45.0	37.5		1.2	20	12.0	2.8
C52501406KX#-**	40	42.5	33.0	45.0	37.5	20.0	1.2	20	19.0	2.4
C52501506KX#-**	50	57.5	30.0	45.0	52.5		1.2	13	12.0	4.0
C52501506KX#-**	50	57.5	30.0	45.0	52.5	20.0	1.2	13	17.0	3.5
C52501656KX#-**	65	57.5	35.0	50.0	52.5		1.2	13	12.0	3.3
C52501656KX#-**	65	57.5	35.0	50.0	52.5	20.0	1.2	13	20.0	2.7
C52501906KX#-**	90	57.5	42.5	56.0	52.5	20.0	1.2	13	22.0	2.5
U _N 700VDC										
C52701156KX#-**	15	42.5	24.5	27.5	37.5		1.2	22	10.0	8.0
C52701226KX#-**	22	42.5	28.0	37.0	37.5		1.2	22	12.0	5.5
C52701226KX#-**	22	42.5	28.0	37.0	37.5	10.0	1.2	22	12.0	5.2
C52701306KX#-**	30	42.5	30.0	45.0	37.5		1.2	22	12.0	4.0
C52701306KX#-**	30	42.5	30.0	45.0	37.5	20.0	1.2	22	15.0	3.5
C52701526KX#-**	35	42.5	33.0	45.0	37.5		1.2	22	12.0	3.5
C52701526KX#-**	35	42.5	33.0	45.0	37.5	20.0	1.2	20	18.0	3.1
C52701456KX#-**	45	57.5	30.0	45.0	52.5		1.2	15	12.0	5.3
C52701456KX#-**	45	57.5	30.0	45.0	52.5	20.0	1.2	15	20.0	3.5
C52701556KX#-**	55	57.5	35.0	50.0	52.5		1.2	15	12.0	4.3
C52701556KX#-**	55	57.5	35.0	50.0	52.5	20.0	1.2	15	22.0	2.8

The above table / graphics are for reference only, subject to the actual product (unit: mm)

Article Table

Part Number	CAP μF	Dimension (mm)						dv/dt V/μs	I _{rms} max @10KHz A	ESR @10KHz (mΩ)
		L	T	H	P	P1	d			
U _N 800VDC										
C52801104KX#-**	0.1	18	7.5	13.5	15	--	0.6	350	10.0	70
C52801124 KX#-**	0.12	18	7.5	13.5	15	--	0.8	350	11.0	68
C52801154 KX#-**	0.15	18	7.5	13.5	15	--	0.8	350	12.0	65
C52801224 KX#-**	0.22	18	8.4	16.5	15	--	0.8	350	13.0	60
C52801304 KX#-**	0.30	18	10.8	19.0	15	--	0.8	350	14.0	55
C52801334 KX#-**	0.33	18	10.8	19.0	15	--	0.8	350	14.0	55
U _N 900VDC										
C52901106KX#-**	10	42.5	24.5	27.5	37.5		1.2	30	8.0	9.5
C52901156KX#-**	15	42.5	28.0	37.0	37.5		1.2	30	11.0	6.5
C52901156KX#-**	15	42.5	28.0	37.0	37.5	10.0	1.2	30	11.0	6.0
C52901206KX#-**	20	42.5	30.0	45.0	37.5		1.2	30	12.0	5.0
C52901206KX#-**	20	42.5	30.0	45.0	37.5	20.0	1.2	30	13.0	4.5
C52901306KX#-**	30	57.5	30.0	45.0	52.5		1.2	20	12.0	6.3
C52901306KX#-**	30	57.5	30.0	45.0	52.5	20.0	1.2	20	16.0	5.9
C52901406KX#-**	40	57.5	35.0	50.0	52.5		1.2	20	12.0	4.9
C52901406KX#-**	40	57.5	35.0	50.0	52.5	20.0	1.2	20	20.0	4.5
C52901556KX#-**	55	57.5	42.5	56.0	52.5	20.0	1.2	20	22.0	3.1
U _N 1200VDC										
C52122505KX#-**	5	42.5	24.5	27.5	37.5		1.2	40	6.0	13.0
C52122106KX#-**	10	42.5	28.0	37.0	37.5		1.2	40	10.0	8.0
C52122106KX#-**	10	42.5	28.0	37.0	37.5	10.0	1.2	40	10.0	7.5
C52122156KX#-**	15	42.5	33.0	45.0	37.5		1.2	40	12.0	5.5
C52122156KX#-**	15	42.5	33.0	45.0	37.5	20.0	1.2	40	13.0	5.0
C52122226KX#-**	22	57.5	30.0	45.0	52.5		1.2	27	12.0	7.0
C52122226KX#-**	22	57.5	30.0	45.0	52.5	20.0	1.2	27	14.0	6.5
C52122256KX#-**	25	57.5	35.0	50.0	52.5		1.2	27	12.0	6.3
C52122256KX#-**	25	57.5	35.0	50.0	52.5	20.0	1.2	27	16.0	6.0
C52122406KX#-**	40	57.5	42.5	56.0	52.5	20.0	1.2	27	20.0	3.5

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Note: Maximum I_{rms} current at 10kHz, T_{amb}= T_{amb}=70°C ΔT ≤ 15°C.