

## DC-Link Capacitor

### C53



#### Characteristics

- Polypropylene film dielectric
- Mylar tape packaging, sealed with epoxy resin
- Small size and easy installation
- Excellent high frequency and high current bearing capacity

#### Application

- Widely used in DC-Link Circuits, as a high frequency filtering and decoupling
- Direct Coupling in Power Electronic equipment

#### Technical Data

• Reference Standards	GB/T 17702 IEC 61071
• Operating Temperature Range	-40°C~70°C Top max:+85°C
• Capacitance Range	15μF~300μF
• Rated Voltage	600VDC~1200VDC
• Capacity Tolerance	±5%(J); ±10%(K)
• Test voltage between electrodes	1.5Un (DC) 60S 20°C
• Test voltage between electrode and case	1000+2×UN/√2(VAC) 50Hz 60S (min 3000VAC)
• Dissipation Factor	tgδ≤2×10 <sup>-3</sup> at 20°C, 1KHz
• Insulation Resistance	C•R≥5000S, at 100VDC, 20°C, 60S
• Life Expectancy	100000hrs ( Un θhotspot ≤ 70°C)

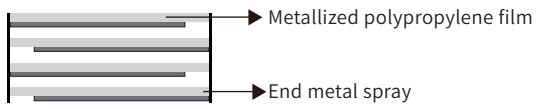
#### Overvoltage Operation

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

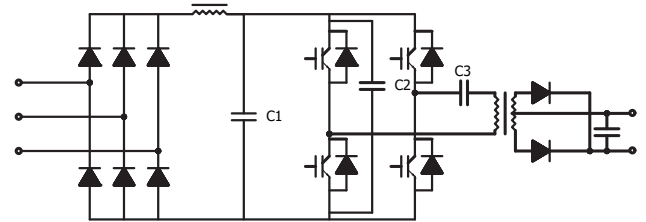
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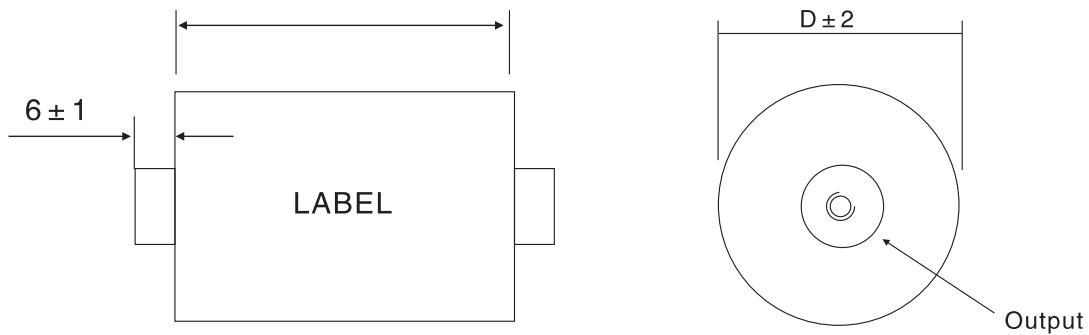
### Construction Diagram



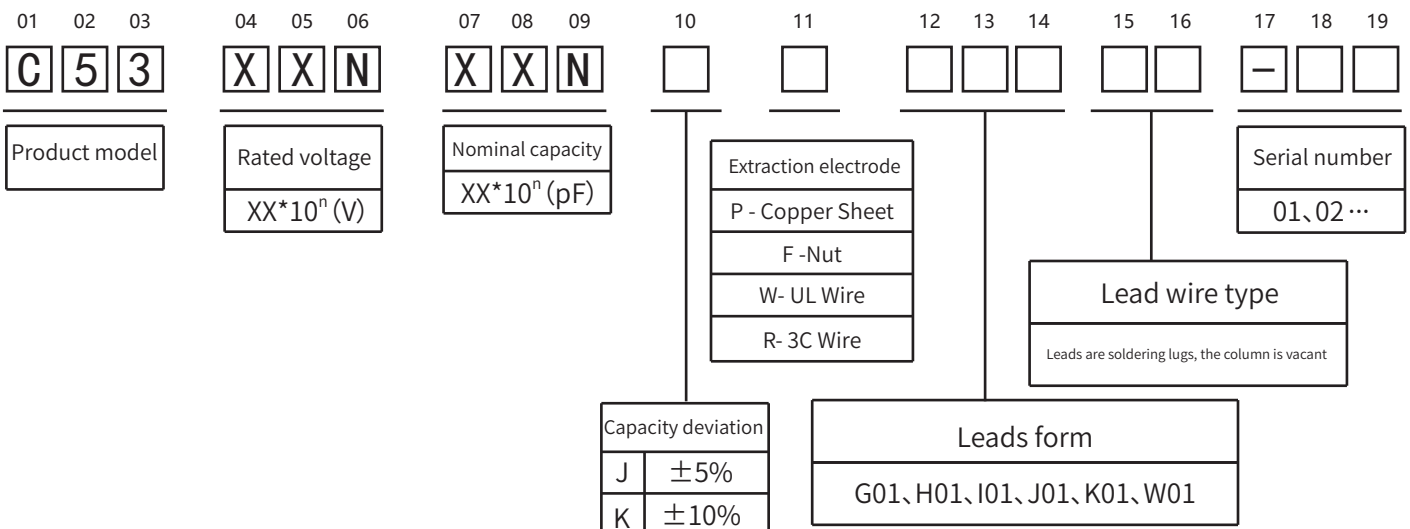
### Typical Circuit



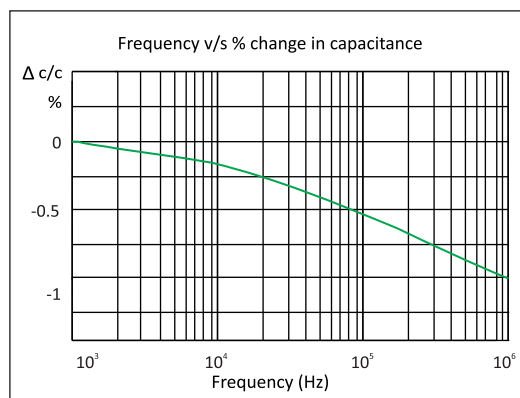
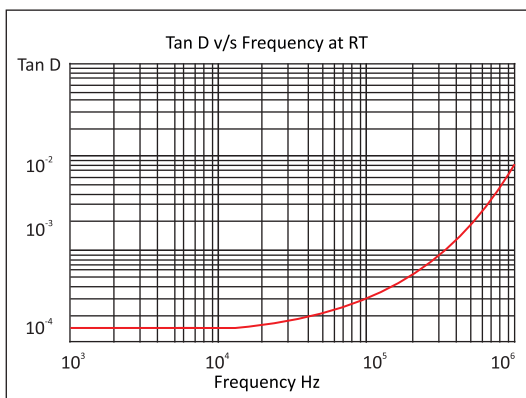
### Product Shape



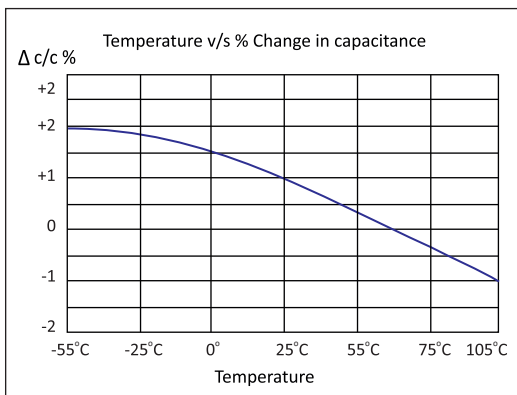
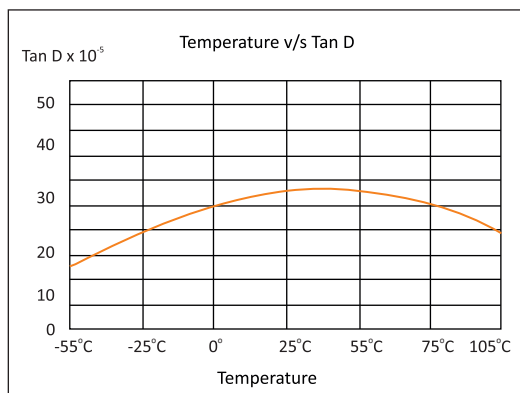
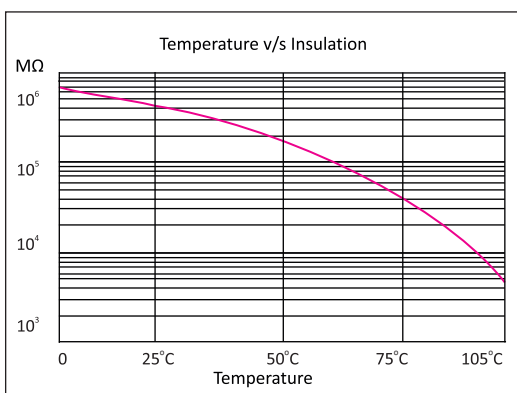
### Product Coding



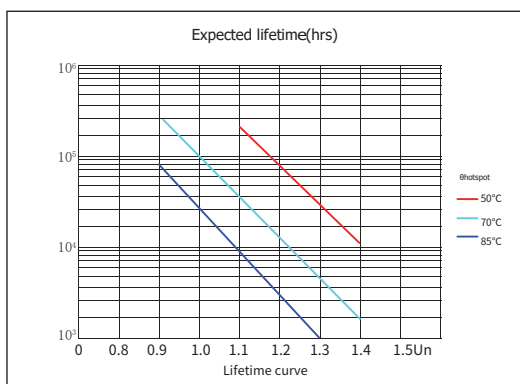
### Temperature Characteristics



### Frequency Characteristics



### Life Expectancy



### Article Table

Part Number	CAP μF	Dimension (mm)		dv/dt (V/μs)	Ipeak (A)	Irms @10KHz70°C (A)	ESL (nH)	ESR @1KHz20°C (mΩ)	Output
		L	D						
U <sub>N</sub> 600VDC									
C53601306KF*****	30	40	45	60	1800	40	25	3.2	M6
C53601506KF*****	50	50	50	50	2500	40	25	3.0	M6
C53601806KF*****	80	50	62	40	3200	50	25	3.0	M6
C53601107KF*****	100	60	60	40	4000	55	25	3.0	M6
C53601157KF*****	150	60	75	35	5250	70	25	2.5	M8
C53601207KF*****	200	110	60	25	5000	80	25	2.6	M6
C53601307KF*****	300	110	72	20	6000	85	25	2.1	M8
U <sub>N</sub> 800VDC									
C53801206KF*****	20	40	44	60	1200	40	25	2.9	M6
C53801306KF*****	30	50	46	60	1800	45	25	2.7	M6
C53801406KF*****	40	50	52	60	2400	45	25	2.7	M6
C53801506KF*****	50	50	59	55	2750	50	25	2.4	M6
C53801107KF*****	100	60	72	50	5000	65	25	2.2	M8
C53801157KF*****	150	110	62	30	4500	70	25	2.4	M6
C53801207KF*****	200	110	71	30	6000	80	25	2.2	M8
U <sub>N</sub> 1200VDC									
C53122156KF*****	15	40	51	70	1050	40	25	3.2	M6
C53122256KF*****	25	50	54	60	1500	45	25	3.1	M6
C53122406KF*****	40	50	69	60	2400	60	25	2.7	M6
C53122506KF*****	50	60	69	50	2500	60	25	2.6	M6
C53122806KF*****	80	60	86	50	4000	75	25	1.6	M8
C53122107KF*****	100	110	66	35	3500	70	25	2.5	M6
C53122157KF*****	150	110	81	35	5250	85	25	2.2	M8

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

Note: Maximum Irms current at 10kHz, Tamb=Tamb=70°C ΔT≤15°C.