

IGBT Snubber Protection Capacitor C32



Characteristics

- PET tape wrapping, epoxy resin sealing
- Axial leads with tinned copper wire
- High voltage, small $tg\delta$, low temperature rise
- Low ESL and ESR
- High pulse current, high dv/dt

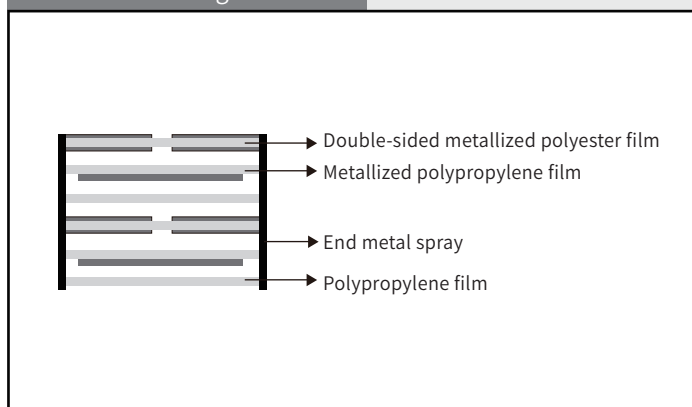
Application

- IGBT buffer absorption circuit protection; IGBT buffer absorption device
- Widely used in power electronic equipment UPS, inverter, induction heating, electric welding machine and other equipment peak voltage, peak current absorption protection

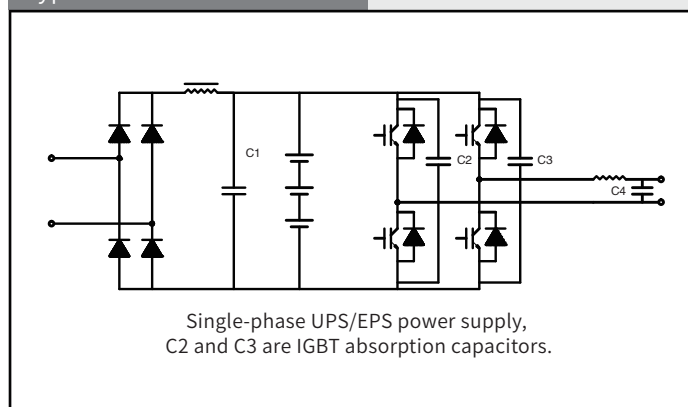
Technical Data

• Reference Standard	IEC61071 .GB/T17702
• Operating Temperature Range	-40°C~+70°C T _{max} +85°C
• Capacitance Range	0.1μF ~5.0μF
• Rated Voltage	700VDC~3000VDC
• Capacity Tolerance	±5%(J); ±10%(K)
• Withstand Voltage	1.5Un DC/10S
• Dissipation Factor	$tg\delta \leq 0.0005$ $C \leq 1\mu F$ $f=10KHz$ at 20°C
	$tg\delta \leq 0.0010$ $C \geq 1\mu F$ $f=10KHz$ at 20°C
• Insulation Resistance	$C \geq 0.33\mu F$ $R_s \geq 30000M\Omega$ (at 20°C 100VDC 60S)
	$C > 0.33\mu F$ $R_s \geq 10000S$ (at 20°C 100VDC 60S)
• Flame Retardation	UL94V-0
• Life Expectancy	100000hrs (U_n $\theta_{hotspot} \leq 70^\circ C$)

Construction Diagram



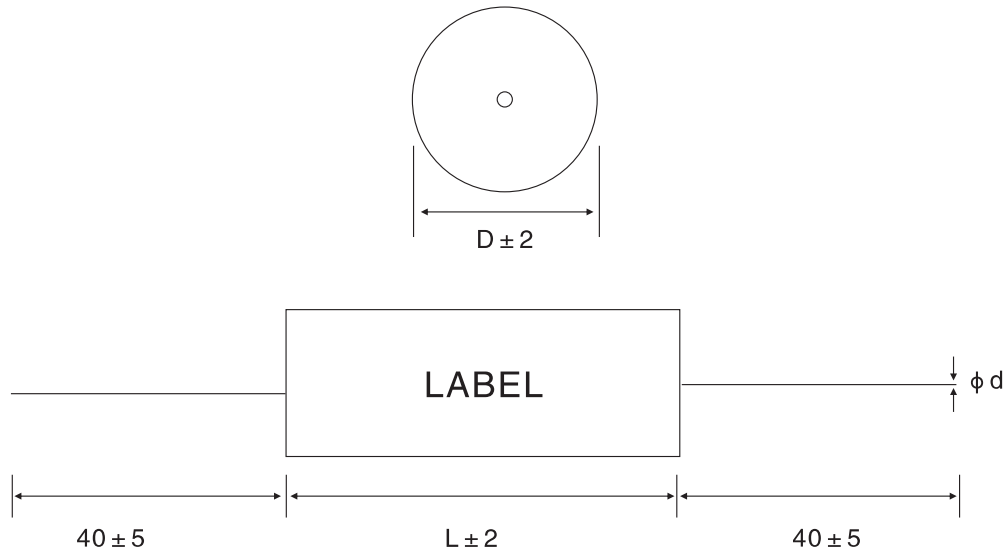
Typical Circuit



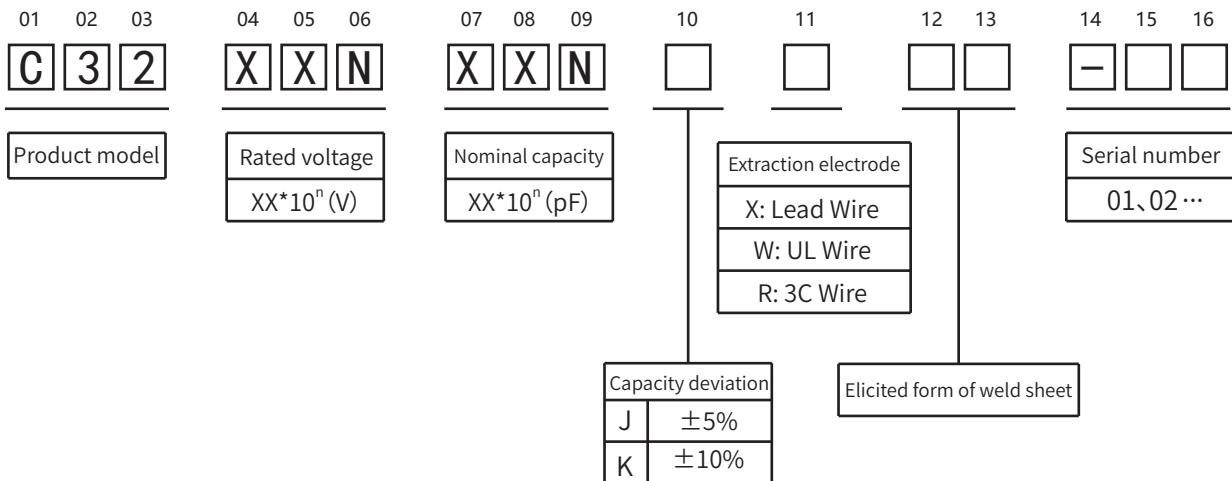
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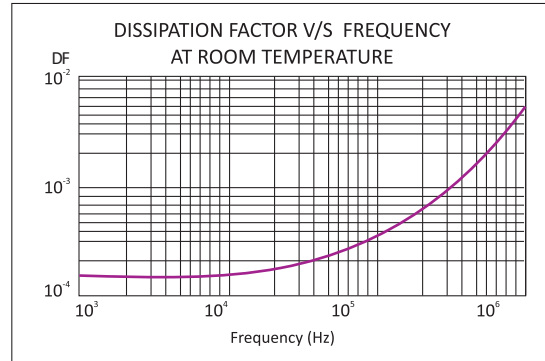
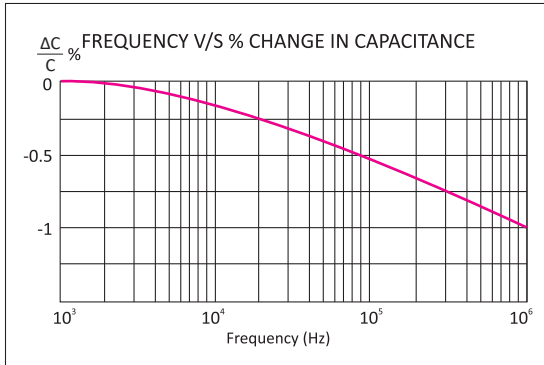
Product Shape



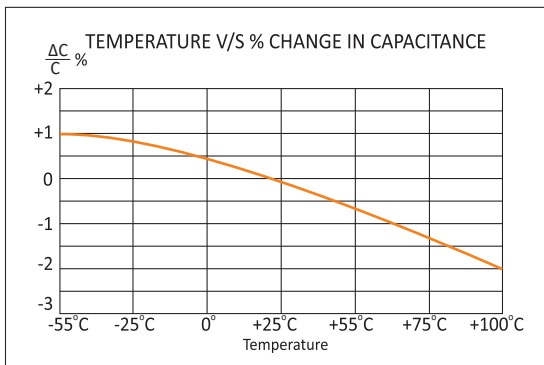
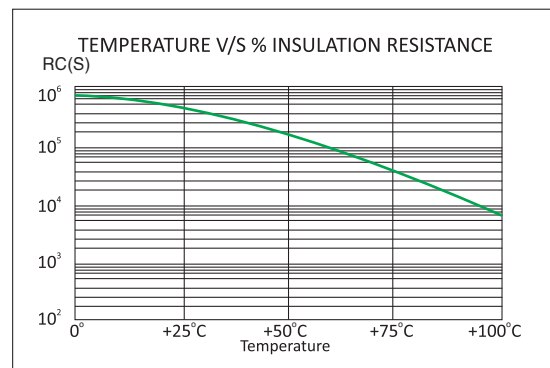
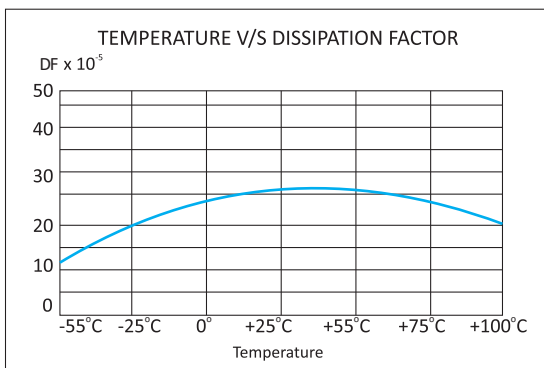
Product Coding



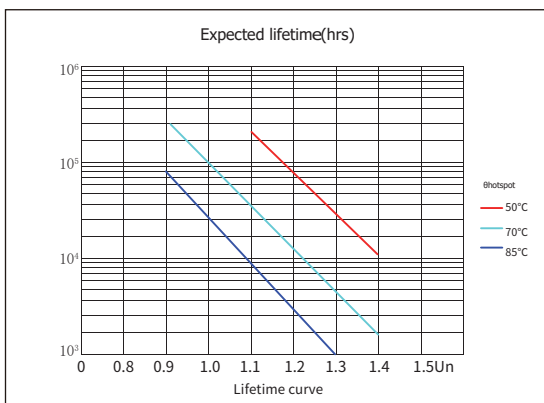
Temperature Characteristics



Frequency Characteristics



Life Expectancy



Article Table

Part Number	CAP μF	Dimension (mm)			dv/dt (V/μs)	I _{peak} (A)	(I _{rms}) 100kHz70°C A	ESL (nH)	ESR 100kHz20°C (mΩ)
		L	D	d					
U _N 700VDC Urms 380VAC Upk 1000VDC									
C32701334JX08•••	0.33	32.0	14.5	0.8	220	72.6	6.0	22	14
C32701474JX08•••	0.47	32.0	16.5	0.8	200	94.0	8.0	21	12
C32701684JX10•••	0.68	32.0	20.0	1.0	180	122.4	9.0	20	11
C32701105JX12•••	1.0	44.0	19.0	1.2	150	150	8.5	30	7.5
C32701155JX12•••	1.5	44.0	23.0	1.2	150	225	10	28	7.0
C32701205JX12•••	2.0	44.0	26.0	1.2	130	260	12	25	6.0
C32701225JX12•••	2.2	44.0	27.0	1.2	120	264	13	25	6.0
C32701255JX12•••	2.5	44.0	29.0	1.2	120	300	13.5	24	5.5
C32701305JX12•••	3.0	44.0	31.5	1.2	110	330	14.0	23	5.0
C32701355JX12•••	3.5	57.0	28.5	1.2	110	385	14.2	32	4.5
C32701475JX12•••	4.7	57.0	32.5	1.2	180	846	14.8	32	3.8
C32701565JX12•••	5.6	57.0	35.5	1.2	180	1008	15.0	32	3.5
U _N 1000VDC Urms 480VAC Upk 1400VDC									
C32102104JX08•••	0.1	32.0	11.0	0.8	1100	110	4.0	20	25
C32102154JX08•••	0.15	32.0	13.0	0.8	1100	165	5.0	21	20
C32102224JX10•••	0.22	32.0	15.5	1.0	1000	220	7.0	21	15
C32102334JX10•••	0.33	32.0	18.5	1.0	1000	330	8.5	21	13
C32102474JX10•••	0.47	32.0	22.0	1.0	1000	470	10.5	23	11
C32102684JX10•••	0.68	44.0	21.0	1.0	900	612	10.2	25	6.0
C32102105JX12•••	1.0	44.0	25.0	1.2	850	850	11.0	27	5.6
C32102155JX12•••	1.5	44.0	30.5	1.2	850	1275	12.0	29	5.0
C32102205JX12•••	2.0	57.0	29.0	1.2	600	1200	12.8	32	4.8
C32102225JX12•••	2.2	57.0	30.5	1.2	550	1210	13.5	32	4.2
C32102305JX12•••	3.0	57.0	35.5	1.2	480	1440	15.6	34	3.5
C32102335JX12•••	3.3	57.0	37.0	1.2	450	1485	16.5	36	3.2
C32102475JX12•••	4.7	57.0	44.0	1.2	400	1880	17.0	37	3.0
U _N 1200VDC Urms 500VAC Upk 1600VDC									
C32122683JX08•••	0.068	32.0	10.0	0.8	1300	88.4	4.5	18	25
C32122104JX08•••	0.1	32.0	11.5	0.8	1200	120	6.0	20	20
C32122154JX10•••	0.15	32.0	14.5	1.0	1200	180	7.5	20	18
C32122224JX10•••	0.22	32.0	17.0	1.0	1200	264	8.3	22	15
C32122334JX10•••	0.33	32.0	20.5	1.0	1200	396	9.0	23	12
C32122474JX10•••	0.47	44.0	22.5	1.0	1100	517	9.8	26	9.0
C32122684JX12•••	0.68	44.0	23.0	1.2	1000	680	11.7	27	6.0
C32122105JX12•••	1.0	44.0	27.5	1.2	1000	1000	12.4	28	5.0
C32122105JX12•••	1.5	44.0	33.5	1.2	950	1425	13.5	30	5.0
C32122205JX12•••	2.0	57.0	32.0	1.2	750	1500	13.8	30	4.8
C32122225JX12•••	2.2	57.0	33.5	1.2	700	1540	14.5	35	4.2
C32122335JX12•••	3.3	57.0	41.0	1.2	600	1980	16.5	36	3.2

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 _{peak} (A)	(I _{rms}) 100kHz70°C A	ESL (nH)	ESR 100kHz20°C (mΩ)
		L	D	d					
U _N 1600VDC Urms 500VAC Upk 2000VDC									
C32162473JX08•••	0.047	32.0	11.5	0.8	1500	70.5	4.5	25	25
C32162683JX08•••	0.068	32.0	12.5	0.8	1500	102	6.0	25	22
C32162104JX08•••	0.1	32.0	16.0	0.8	1300	120	7.5	25	18
C32162154JX10•••	0.15	32.0	19.0	1.0	1200	180	8.5	24	16
C32162224JX10•••	0.22	32.0	23.0	1.0	1200	264	9.3	24	15
C32162334JX10•••	0.33	44.0	22.0	1.0	1100	363	10.2	29	12
C32162474JX12•••	0.47	44.0	26.0	1.2	1000	470	11.2	28	9.0
C32162684JX12•••	0.68	44.0	31.0	1.2	1000	680	11.7	27	8.0
C32162105JX12•••	1.0	44.0	37.5	1.2	900	900	12.4	26	5.6
C32162125JX12•••	1.2	57.0	34.0	1.2	960	1152	12.5	35	5.5
C32162155JX12•••	1.5	57.0	38.0	1.2	900	1350	14.5	36	4.8
C32162205JX12•••	2.0	57.0	43.5	1.2	850	1700	16.0	37	4.5
12U _N 2000VDC Urms 630VAC Upk 2500VDC									
C32202333JX08•••	0.033	32.0	11.0	0.8	1800	59.4	4.0	24	31
C32202473JX08•••	0.047	32.0	12.5	0.8	1500	70.5	5.5	24	29
C32202683JX08•••	0.068	32.0	15.0	0.8	1500	102	6.9	23	25
C32202104JX10•••	0.1	32.0	18.0	1.0	1500	150	8.2	22	18
C32202154JX10•••	0.15	44.0	17.0	1.0	1200	180	8.5	31	16
C32202224JX10•••	0.22	44.0	20.5	1.0	1100	242	9.0	31	15
C32202334JX12•••	0.33	44.0	24.5	1.2	1100	363	10.2	30	12
C32202474JX12•••	0.47	44.0	30.0	1.2	1100	517	12.4	29	10
C32202684JX12•••	0.68	57.0	29.0	1.2	1000	680	14.2	27	8.0
C32202105JX12•••	1.0	57.0	35.0	1.2	950	950	14.5	31	6.0
U _N 3000VDC Urms750VAC Upk 3500VDC									
C32302223JX08•••	0.022	32.0	13.0	0.8	2500	55.0	5.5	19	24
C32302333JX10•••	0.033	32.0	16.0	1.0	2500	82.5	7.0	19	22
C32302473JX10•••	0.047	32.0	18.5	1.0	2000	94.0	8.5	20	20
C32302683JX10•••	0.068	44.0	17.5	1.0	1800	122.4	10.5	20	18
C32302104JX12•••	0.1	44.0	21.0	1.2	1500	150	12.4	20	16
C32302224JX12•••	0.22	44.0	30.5	1.2	1200	264	14.5	22	15
C32302334JX12•••	0.33	57.0	30.5	1.2	1200	396	15.5	23	14.5
C32302474JX12•••	0.47	57.0	37.0	1.2	1100	517	16.5	24	13.0

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