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IGBT Snubber Protection Capacitor

IGBT缓冲吸收电容器

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产品特点.Characteristics

- 塑料外壳, 阻燃环氧树脂封装;
- 镀锡铜片引出;
- 耐压高, 损耗(tgδ)小, 温升低;
- 自感(ESL)小, 等效串联电阻(ESR)小;
- 高脉冲电流、高dv/dt 承受能力
- Plastic shell, flame-retardant epoxy encapsulation
- Tinned copper sheet extraction
- Resistance to high voltage, low dissipation factor
- Low ESL, low ESR, low temperature rise
- High pulse current, High dv/dt affordability

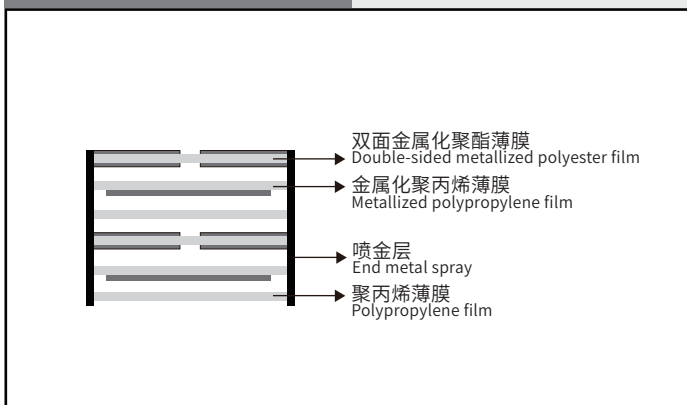
产品应用.Application

- IGBT 缓冲吸收;
- 广泛应用于电力电子装置UPS、逆变器、感应加热、电焊机等设备的尖峰电压、尖峰电流吸收保护;
- 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

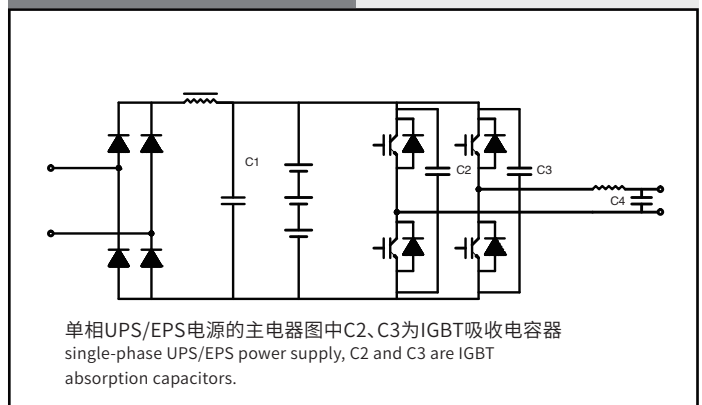
性能参数.Technical Data

● 引用标准Reference Standard	IEC61071 .GB/T17702
● 工作温度范围Operating Temperature Range	-40°C~85°C 最高温度+105°C
● 容量范围Capacitance Range	0.047µF -10µF
● 额定电压Rated Voltage	700 VDC -3000VDC
● 容量偏差Capacity Tolerance	±5%(J); ±10%(K)
● 耐电压Withstand Voltage	1.5Un Dc/10S
● 损耗角正切Dissipation Factor	$tg\delta \leq 0.0005 \quad C \leq 1\mu F \quad f=10KHz \quad \text{at } 20^\circ C$
	$Tg\delta \leq 0.0010 \quad C \geq 1\mu F \quad f=10KHz \quad \text{at } 20^\circ C$
● 绝缘电阻Insulation Resistance	$C \leq 0.33\mu F \quad R_s \geq 30000M\Omega \quad (\text{at } 20^\circ C \quad 100VDC \quad 60S)$
	$C > 0.33 \mu F \quad R_s \geq 10000S \quad (\text{at } 20^\circ C \quad 100VDC \quad 60S)$
● 阻燃性Flame Retardation	UL94V-0
● 预期寿命Life Expectancy	100000hrs (Un hotspot $\leq 85^\circ C$)

结构图.Construction Diagram



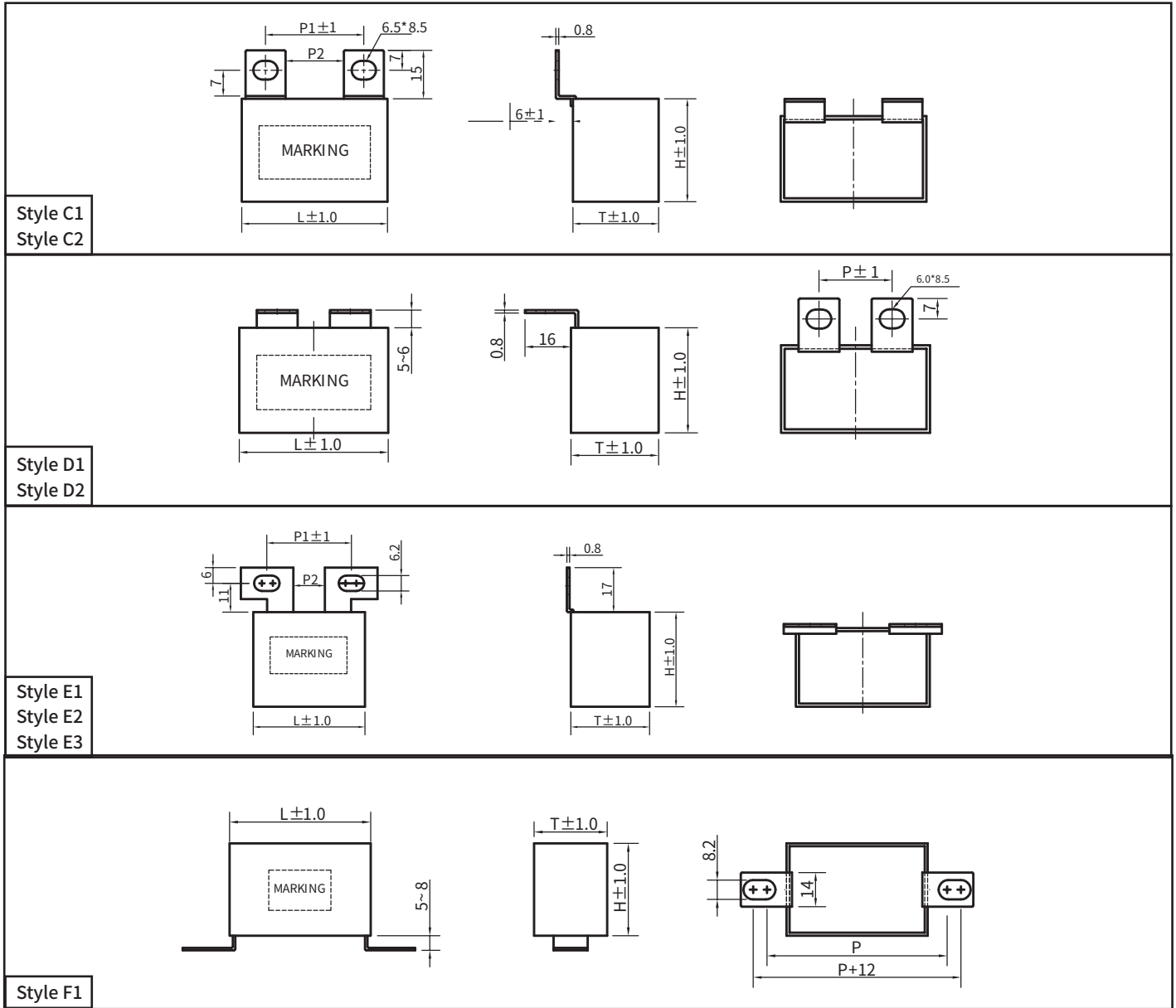
典型线路图.Typical Circuit



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产品外形.Product Shape



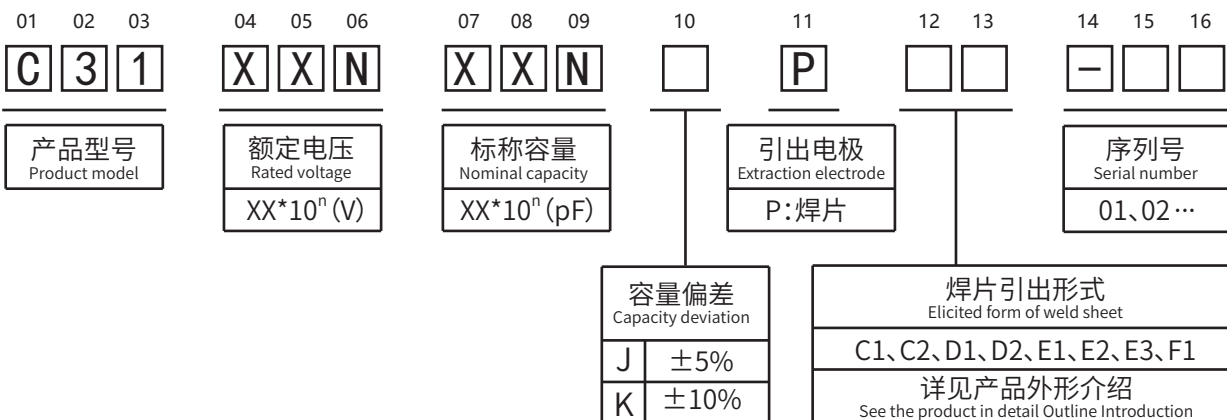
Fixing pitch and distance between lugs(mm)

Style	C1		C2		D1		D2		E1		E2		E3		F1
	P1	P2	P1	P2	P1	P2	P1	P2	P1	P2	P1	P2	P1	P2	P
42.5	23~28	11	20~23	8	23~28	11	20~23	8	29~39	11	33~45	15			50
57.5	23~28	11	36~41	24	23~28	11	36~41	24	29~39	11	33~45	15	46~58	28	65

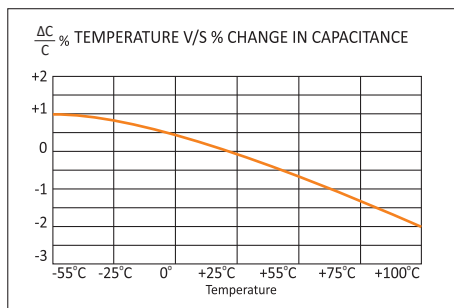
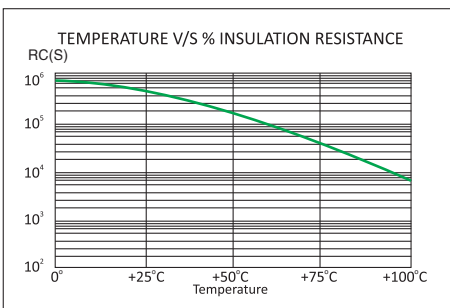
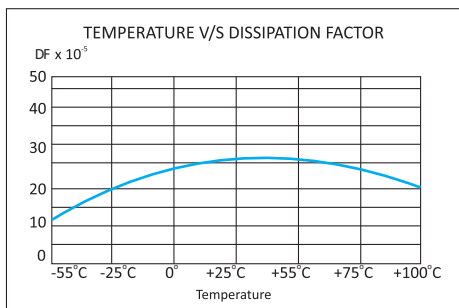
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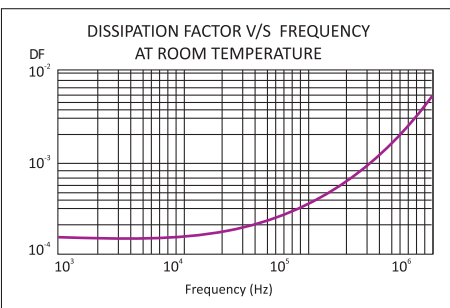
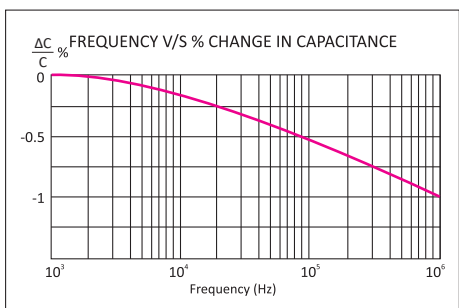
产品编码.Product Coding



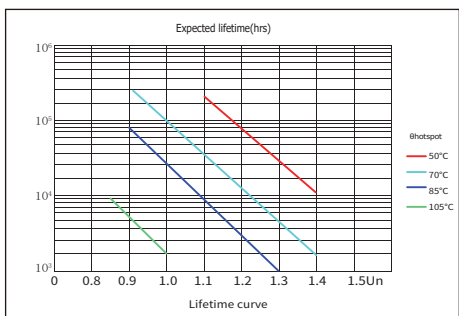
温度特性.Frequency Characteristics



频率特性.Temperature Characteristics



预期寿命 Life Expectancy



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参数表.Article Table

Part Number	CAP μF	Dimension(mm)			dv/dt (V/μs)	Ipeak (A)	I _{rms} @100KHz70℃ (A)	ESL (nH)	ESR @100KHz20℃ (mΩ)
		L	T	H					
U _N 700VDC Urms 380VAC Upk 1000VDC									
C31701105JP*****	1.0	42.5	24.5	27.5	450	450	12	24	8.0
C31701125JP*****	1.2	42.5	24.5	27.5	450	540	13	25	7.5
C31701155JP*****	1.5	42.5	24.5	27.5	430	645	14	25	7.0
C31701205JP*****	2.0	42.5	28.0	37.0	420	840	15	24	6.5
C31701225JP*****	2.2	42.5	28.0	37.0	400	880	17	23	6.0
C31701255JP*****	2.5	42.5	28.0	37.0	400	1000	18	23	6.0
C31701305JP*****	3.0	42.5	33.0	45.0	380	1140	20	22	5.5
C31701335JP*****	3.3	42.5	33.0	45.0	350	1155	21	22	5.3
C31701355JP*****	3.5	42.5	33.0	45.0	350	1225	25	22	5.1
C31701405JP*****	4.0	57.5	30.0	45.0	280	1120	24	26	5.0
C31701475JP*****	4.7	57.5	35.0	50.0	280	1316	25	28	5.0
C31701565JP*****	5.6	57.5	35.0	50.0	250	1400	26	30	4.0
C31701685JP*****	6.8	57.5	35.0	50.0	220	1496	28	32	3.2
C31701106JP*****	10.0	57.5	42.5	56.0	200	2000	33	33	2.5
U _N 1000VDC Urms 480VAC Upk 1400VDC									
C31102684JP*****	0.68	42.5	24.5	27.5	800	544	12	25	8.0
C31102105JP*****	1.0	42.5	28.0	37.0	800	800	13	24	6.5
C31102125JP*****	1.2	42.5	33.5	35.5	700	840	15	24	6.0
C31102155JP*****	1.5	42.5	33.5	35.5	700	1050	15	24	6.0
C31102205JP*****	2.0	42.5	33.0	45.0	700	1400	20	22	5.2
C31102225JP*****	2.2	57.5	30.0	45.0	600	1320	21	28	5.0
C31102255JP*****	2.5	57.5	30.0	45.0	600	1500	22	30	5.0
C31102305JP*****	3.0	57.5	35.0	50.0	550	1650	25	30	4.0
C31102335JP*****	3.3	57.5	30.0	45.0	500	1650	25	30	3.5
C31102475JP*****	4.7	57.5	42.5	56.0	420	1974	30	25	3.0
U _N 1200VDC Urms 500VAC Upk 1600VDC									
C31122224JP*****	0.22	42.5	24.5	27.5	1500	330	5.0	28	20
C31122334JP*****	0.33	42.5	24.5	27.5	1500	495	7.0	26	15
C31122474JP*****	0.47	42.5	24.5	27.5	1200	564	10	24	11
C31122564JP*****	0.56	42.5	24.5	27.5	1200	672	11	23	8.0
C31122684JP*****	0.68	42.5	33.5	35.5	1100	748	12	23	7.0
C31122824JP*****	0.82	42.5	33.5	35.5	1000	820	13	23	6.5
C31122105JP*****	1.0	42.5	33.5	35.5	1000	1000	14	22	6.0
C31122125JP*****	1.2	42.5	33.0	45.0	800	960	14	21	5.5
C31122155JP*****	1.5	42.5	33.0	45.0	800	1200	15	20	5.0
C31122205JP*****	2.0	57.5	30.0	45.0	750	1500	20	30	4.0
C31122225JP*****	2.2	57.5	35.0	50.0	750	1650	22	28	4.0
C31122255JP*****	2.5	57.5	35.0	50.0	700	1750	25	28	4.0
C31122305JP*****	3.0	57.5	35.0	50.0	600	1800	25	27	4.0
C31122475JP*****	4.7	57.5	42.5	56.0	420	1974	32	23	3.2

以上表格/图形仅供参考,以实物为准,(单位:mm)

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

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参数表.Article Table

Part Number	CAP μF	Dimension(mm)			dv/dt (V/μs)	Ipeak (A)	Irms @100KHz70°C (A)	ESL (nH)	ESR @100KHz20°C (mΩ)
		L	T	H					
U _N 1600VDC Urms 500VAC Upk 2000VDC									
C31162334JP*****	0.33	42.5	24.5	27.5	1300	429	9.0	25	12
C31162474JP*****	0.47	42.5	33.5	35.5	1300	611	10	24	10
C31162564JP*****	0.56	42.5	33.5	35.5	1300	728	11	23	9.0
C31162684JP*****	0.68	42.5	33.5	35.5	1300	884	12	23	8.0
C31162824JP*****	0.82	42.5	33.5	35.5	1200	984	13.5	22	7.5
C31162105JP*****	1.0	42.5	33.5	35.5	1200	1200	15	22	7.0
C31162125JP*****	1.2	57.5	30.0	45.0	1200	1440	16	22	6.5
C31162155JP*****	1.5	57.5	35.0	50.0	1200	1800	18	31	6.0
C31162205JP*****	2.0	57.5	42.5	56.0	1200	2400	25	30	5.0
U _N 2000VDC Urms 630VAC Upk 2500VDC									
C31202104JP*****	0.1	42.5	24.5	27.5	1800	180	6.0	30	25
C31202154JP*****	0.15	42.5	24.5	27.5	1800	270	8.0	28	20
C31202224JP*****	0.22	42.5	24.5	27.5	1500	330	10	25	15
C31202334JP*****	0.33	42.5	33.5	35.5	1500	495	12	24	12
C31202474JP*****	0.47	42.5	33.0	45.0	1400	658	15	23	11
C31202564JP*****	0.56	42.5	33.0	45.0	1200	672	16	22	9.5
C31202684JP*****	0.68	57.5	30.0	45.0	1200	816	18	22	8.0
C31202824JP*****	0.82	57.5	30.0	45.0	1100	902	22	28	7.0
C31202105JP*****	1.0	57.5	35.0	50.0	1100	1100	25	28	6.0
U _N 3000VDC Urms 750VAC Upk 3500VDC									
C31302473JP*****	0.047	42.5	24.5	27.5	3000	141	6.0	40	35
C31302683JP*****	0.068	42.5	24.5	27.5	3000	204	10	35	27
C31302104JP*****	0.1	42.5	33.5	35.5	2500	250	18	30	23
C31302154JP*****	0.15	42.5	33.5	35.5	2500	375	25	28	18
C31302224JP*****	0.22	42.5	33.0	45.0	2200	484	28	27	15
C31302334JP*****	0.33	57.5	30.0	45.0	1800	594	20	24	12
C31302474JP*****	0.47	57.5	42.0	56.5	1500	705	22	23	11

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