

CAPACITOR



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SMJ-TE
IGBT / GTO-Snubber

POWER LINKS SUCCESS

IGBT SMJ-TE series

Snubber capacitor

Axial leads with tinned copper wire

迈拉胶带封装，阻燃树脂灌注
Mylar tape, sealed with resin



Resistance to high voltage, low tgδ,
low temperature rise

High pulse current,
high dv/dt withstand capability

Low ESL and ESR

Application

- IGBT snubber.
- Widely used in power electronic equipment when the peak voltage, peak current absorption protection .

Technical data

Operating temperature range	Max.Operating temperature.,Top,max : + 85°C
	Upper category temperature: +85°C
	Lower category temperature : - 40°C
(C _N) / Capacitance range	0.1μF~ 5.6μF
(U _N) / Rated voltage	630V.DC ~ 2000V.DC
Cap.tol	±5%(J); ±10%(K)
Withstand voltage	1.5U _{NDC} / 10s
Dissipation factor	tgδ≤0.0005 C<1μF f=10kHz
	tgδ≤0.001 C≥1μF f=10kHz
Insulation resistance	C ≤ 0.33μF R _s ≥30000 MΩ(at 20°C 100V.DC 60s)
	C>0.33μF R _s ×C≥10000s (at 20°C 100V.DC 60s)

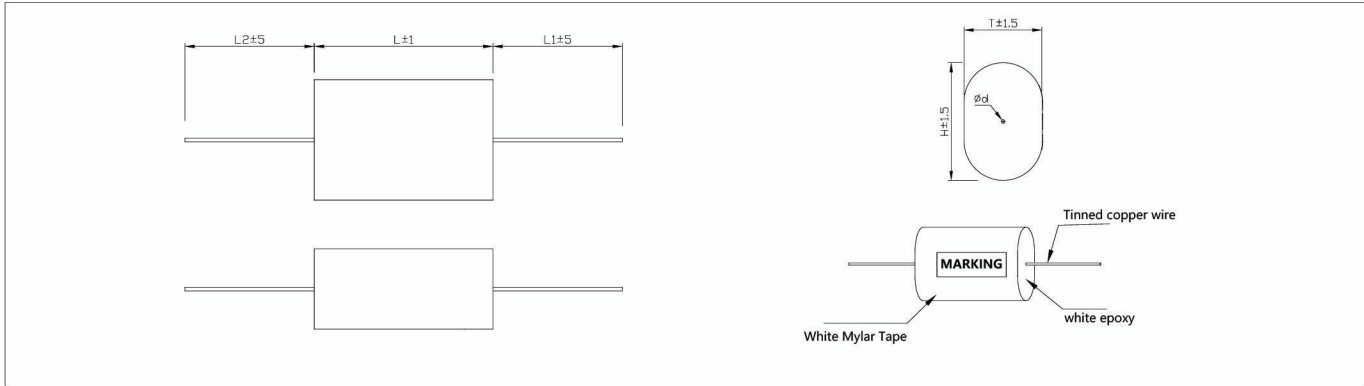


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Technical data

Withstand strike current	See the specification sheet
Life expectancy	100000h (U _N ; θ _{hotspot} ≤ 85°C)
Reference standard	IEC61071;GB/T17702

The contour map



Part number system

Model			Capacitance			U _N (DC)				Cap. tol	Length		Lead	Internal feature code	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
S	T	E	4	7	4	1	2	0	0	J	4	4	A	0	1
1	~	3	digits:	Model											
4	~	6	digits:	Nominal Capacity											
			e.g. 474=47×10 ⁴ pF=0.47μF												
7	~	10	digits:	U _N (DC)											
			e.g. 1200=1200VDC												
		11	digits:	Capacitance Tolerance											
			±5% (J) ; ±10% (K)												
12	~	13	digits:	Length											
			e.g. 44=44mm												
		14	digits:	Lead											
			A: Φ0.8×30												
			B: Φ1.0×42												
			C: Φ1.2×42												
15	~	16	digits :	Internal feature code											

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IGBT SMJ-TE series

Snubber capacitor

Specification table

C _N (μF)	L (mm)	T (mm)	H (mm)	φD (mm)	ESR @100kHz (mΩ)	ESL (nH)	dv/dt (V/μS)	I _p (A)	I _{rms} @25°C 100kHz (A)	Part number
U _N 630V.DC U _{rms} 400V.AC U _s 945V										
0.22	32	9.5	17.5	0.8	16	23	300	66	5.3	STE2240630*32A**
0.33	32	12	20	1	13	22	200	66	6.5	STE3340630*32B**
0.47	32	14.5	22.5	1	11	21	220	103.4	8.3	STE4740630*32B**
0.68	32	18	26	1	10	20	180	122.4	9.5	STE6840630*32B**
1	37	11	19	1	8	28	150	150	7.6	STE1050630^37B**
1.5	37	13.5	21.5	1	7	27	150	225	9.5	STE1550630^37B**
2	37	16	24	1.2	6	24	130	260	10.2	STE2050630*37C**
2.5	37	18	26	1.2	5.5	25	120	300	10.5	STE2550630*37C**
3	37	20	28	1.2	5	30	110	330	10.8	STE3050630*37C**
3.3	37	21	29	1.2	4.5	30	110	363	11.2	STE3350630*37C**
4	57	27	36.5	1.2	4.2	32	220	880	12.8	STE4050630*57C**
4.7	57	28	40.5	1.2	3.8	32	200	940	13.8	STE4050630*57C**
5.6	57	31	33.5	1.2	3.5	32	185	1036	13.5	STE5650630*57C**
6.8	37	29	41.5	1.2	2.5	28	100	680	13.8	STE6850630*37C**
6.8	57	34	46.5	1.2	2.8	30	180	1224	14.2	STE6850630*57C**
U _N 1000V.DC U _{rms} 500V.AC U _s 1500V										
0.15	32	10	17.5	0.8	20	20	1100	165	5.5	STE1541000*32A**
0.22	32	12	20	1	15	21	1000	220	7.3	STE2241000*32B**
0.33	32	15.5	23	1	13	21	1000	330	8.7	STE3341000*32B**
0.47	32	18.5	26	1.2		23	1000	470	10.5	STE4741000*32C**
0.47	44	14	22	1.2	9	24	900	423	9.5	STE4741000*44C**
0.15	32	10	17.5	0.8	20	20	1100	165	5.5	STE1541000*32A**
0.22	32	12	20	1	15	21	1000	220	7.3	STE2241000*32B**
0.33	32	15.5	23	1	13	21	1000	330	8.7	STE3341000*32B**
0.47	32	18.5	26	1.2		23	1000	470	10.5	STE4741000*32C**
0.47	44	14	22	1.2	9	24	900	423	9.5	STE4741000*44C**
0.68	32	20	32.5	1.2	7	25	900	612	10.8	STE6841000*32C**
0.68	44	17	25	1.2	6	26	800	544	10.2	STE6841000*44C**
1	44	21.5	29.5	1.2	5.6	27	900	900	11	STE1051000*44C**
1.5	44	26	35.5	1.2	5	29	900	1350	12	STE1551000*44C**
1.5	57	21	29	1.2	5	30	700	1050	12.2	STE1551000*57C**
2	44	28	40.5	1.2	4.8	30	800	1600	13.2	STE2051000*44C**



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Specification table

C _N (μF)	L (mm)	T (mm)	H (mm)	φD (mm)	ESR @100kHz (mΩ)	ESL (nH)	dv/dt (V/μS)	I _p (A)	I _{rms} @25°C 100kHz (A)	Part number
U _N 1000V.DC U _{rms} 500V.AC U _s 1500V										
1.5	57	21	29	1.2	5	30	700	1050	12.2	STE1551000*57C**
2	44	28	40.5	1.2	4.8	30	800	1600	13.2	STE2051000*44C**
2	57	24	33.5	1.2	4.8	32	600	1200	12.8	STE2051000*57C**
2.2	44	30	42.5	1.2	4.2	32	600	1320	13.8	STE2251000*44C**
2.2	57	25	34.5	1.2	4.2	32	500	1100	13.5	STE2251000*57C**
2.5	57	25	38	1.2	4	33	500	1250	14.2	STE2551000*57C**
3	57	28	40.5	1.2	3.5	34	480	1440	15.6	STE3051000*57C**
3.3	57	29.5	42	1.2	3.2	35	450	1485	16.5	STE3351000*57C**
3.5	57	30.5	43	1.2	3.2	35	450	1575	17.2	STE3551000*57C**
4.7	57	35	50.5	1.2	3	36	420	1974	17.8	STE4751000*57C**
5.6	57	38.5	65	1.2	2.8	38	400	2240	18.2	STE5651000*57C**
U _N 1200V.DC U _{rms} 550V.AC U _s 1800V										
0.1	32	8.5	16	0.8	20	20	1300	130	6	STE1041200*32A**
0.15	32	10	17.5	1	18	20	1200	180	7.5	STE1541200*32B**
0.22	32	13	21	1	15	22	1200	264	8.3	STE2241200*32B**
0.33	32	16	24	1	12	23	1200	396	9	STE3341200*32B**
0.47	32	17.5	30	1.2	10	23	1200	564	9.5	STE4741200*32C**
0.47	44	15	23	1.2	9	26	1100	517	9.8	STE4741200*44C**
0.68	32	21.5	34	1.2	8	25	1100	517	10	STE6841200*32C**
0.68	44	18.5	26.5	1.2	6	27	1000	680	11.7	STE6841200*44C**
1	44	23	31	1.2	5	28	1000	1000	12.4	STE1051200*44C**
1.5	44	26.5	39	1.2	5	30	950	1425	13.5	STE1551200*44C**
1.5	57	22.5	30.5	1.2	5	29	900	1350	12.6	STE1551200*57C**
2	44	29	45	1.2	5	30	800	1600	14.2	STE2051200*44C**
2	57	26.5	34.5	1.2	4.8	30	750	1500	13.8	STE2051200*57C**
2.2	44	31	47	1.2	4.2	32	800	1760	14.5	STE2251200*44C**
2.2	57	27.5	35.5	1.2	4.2	35	700	1540	14.5	STE2251200*57C**
3	57	29	44.5	1.2	3.2	37	500	1500	17.2	STE3051200*57C**
3.3	57	30.5	46	1.2	3.2	38	450	1485	17.8	STE3351200*57C**
4.7	57	38	53.5	1.2	3	38	420	1974	18.2	STE4751200*57C**
U _N 1700V.DC U _{rms} 575V.AC U _s 2550V										
0.1	32	9.5	17.5	0.8	18	25	1300	130	7.5	STE1041700*32A**
0.15	32	12	20	1	16	24	1200	180	8.5	STE1541700*32B**



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IGBT SMJ-TE series

Snubber capacitor

Specification table

C _N (μF)	L (mm)	T (mm)	H (mm)	φD (mm)	ESR @100kHz (mΩ)	ESL (nH)	dv/dt (V/μs)	I _p (A)	I _{rms} @25°C 100kHz (A)	Part number
U _N 1700V.DC U _{rms} 575V.AC U _s 2550V										
0.22	32	15	23	1	15	24	1200	264	9.3	STE2241700*32B**
0.33	32	18.5	26.5	1	12	22	1200	396	9.9	STE3341700*32B**
0.33	44	13.5	21.5	1.2	12	29	1100	363	10.2	STE3341700*44C**
0.47	44	16	24	1.2	9	28	1000	470	11.2	STE4741700*44C**
0.68	44	20	28	1.2	8	27	1000	680	11.7	STE6841700*44C**
1	44	24	33.5	1.2	5.6	26	900	900	12.4	STE1051700*44C**
1	57	19.5	27.5	1.2	6	33	850	850	10.8	STE1051700*57C**
1.5	44	28	40.5	1.2	4.8	25	800	1200	13.5	STE1551700*44C**
1.5	57	24	32	1.2	5	33	750	1125	13.5	STE1551700*57C**
2	44	31.5	47	1.2	4.5	24	750	1500	14.2	STE2051700*44C**
2	57	27.5	37	1.2	4.8	32	650	1300	12.8	STE2051700*57C**
2.2	44	33.5	49	1.2	4.5	34	700	1540	15.6	STE2251700*44C**
2.2	57	29	40	1.2	4.2	32	600	1320	14.5	STE2251700*57C**
3	57	31	46.5	1.2	4	30	560	1680	17.2	STE3051700*57C**
3.3	57	33	48.5	1.2	3.2	29	500	1650	17.6	STE3351700*57C**
4	57	37	52.5	1.2	3	28	450	1800	18.2	STE4051700*57C**
U _N 2000V.DC U _{rms} 700V.AC U _s 3000V										
0.068	32	9	17	0.8	25	23	1500	102	6.9	STE6832000*32B**
0.1	32	11.5	19.5	1	18	22	1500	150	8.2	STE1042000*32B**
0.1	37	10.5	18.5	1	18	26	1450	145	8	STE1042000*37B**
0.22	32	17.5	25.5	1.2	15	21	1400	308	9.1	STE2242000*32C**
0.22	37	16	24	1.2	15	25	1300	286	9	STE2242000*37C**
0.33	37	20	28	1.2	12	24	1250	412.5	9.5	STE3342000*37C**
0.33	44	18	26	1.2	12	30	1200	396	10.2	STE3342000*44C**
0.47	44	19.5	32	1.2	10	29	1100	517	12.4	STE4742000*44C**
0.68	44	24	36.5	1.2	8	28	1000	680	14.2	STE6842000*44C**
0.68	57	18.5	31	1.2	8	27	900	612	14.2	STE6842000*57C**
1	57	23.5	36	1.2	6	31	950	950	14.5	STE1052000*57C**
1.5	57	29.5	42	1.2	5	31	850	1275	14.5	STE1552000*57C**
2	57	33	48.5	1.2	4.2	31	750	1500	16.5	STE2052000*57C**
2.2	57	35	50.5	1.2	4	30	700	1540	17.8	STE2252000*57C**
U _N 3000V.DC U _{rms} 750V.AC U _s 4500V										
0.047	44	13.5	21.5	1	22	20	2000	94	8.5	STE4733000*44B**
0.068	44	17	25	1	20	20	1800	122.4	10.5	STE4733000*44B**
0.1	44	20.5	28.5	1.2	18	20	1500	150	12.4	STE1043000*44C**
0.15	44	26	34	1.2	16	22	1350	202.5	13.8	STE1543000*44C**
0.22	44	29	41.5	1.2	14.5	22	1200	264	14.5	STE2243000*44C**

