

1.1.1 GTO Snubber Capacitors :

STG-01A, STG-02A series

This series of capacitors have been designed for high frequency, RMS Current, dv/dt and high peak current application requirement.

Applications :

GTO Snubbing and protection, Thyristor controlled rectifier circuits, High Current Snubber circuit, damping of voltage spikes on GTO-Thyristor.

Traction application and Static Drive

High ripple current filtering, Medium Frequency tuning, Pulsed Lasers

Properties :

Very Low Losses, medium frequency range, High RMS Current Rating, High Pulse Current Rating dv/dt, High Voltage Capabilities, Temperature up to 105C, High Insulation Resistance and Flame Retardant Construction

Electrical Characteristics :

STG-01A series

Rated Voltage : 850Vdc ~ 2200Vdc / 450Vrms ~ 1000Vrms

Capacitance range : 0.5 ~ 10uF (can be customized)

Ripple RMS Current up to 75A

Smaller capacitor size

STG-02A series

Rated Voltage : 1300Vdc ~ 2000Vdc / 700Vrms ~ 1000Vrms

Capacitance range : 0.2 ~ 1.5uF (can be customized)

Ripple RMS Current up to 90A

Higher RMS Current

Other Electrical Characteristics :

Capacitance Tolerance : +/-5%; +/-10%

Operating Temperature : -40 ~ +105C

Testing Voltage Terminal to Terminal : Vsurge 10 sec (can be customized)

Testing Voltage Terminal to Case : 4500Vac at 105C 1min.

Reference Standard : IEC61071

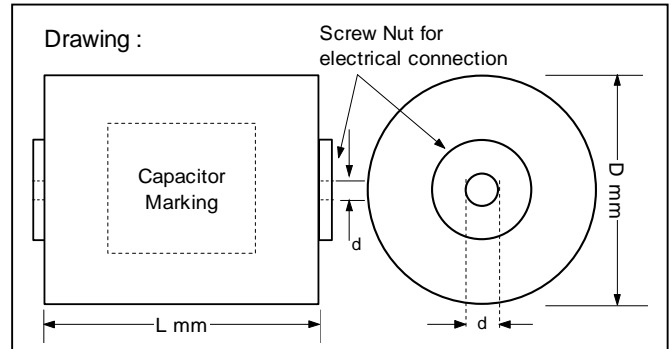
Specifications and Size :

STG-01A Vndc = 850V / Vrms = 450Vac / Vpeak = 1400V 10s / Vsurge = 1700V 10s/day

Part Number	Cn uF	Diameter D mm	Length L Mm	ESR mohm 100khz	ESL nH	dv/dt v/us 105C	Peak Current I _{peak} A	Irms 70C	Irms 85C	Irms 95C	Irms 105C	d (mm)
STG-01A205J850D	2	50	51	1.2	11	730	1460	44	37	28	19	M6
STG-01A255J850D	2.5	65	51	1.1	11	730	1825	46	39	29	20	M6
STG-01A305J850D	3	65	51	1.1	11	730	2190	50	42	31	22	M8
STG-01A355J850D	3.5	65	51	1.0	11	730	2555	53	45	33	23	M8
STG-01A405J850D	4	90	51	0.8	11	730	2920	58	49	37	25	M8
STG-01A505J850D	5	90	51	0.8	11	730	3650	62	52	39	27	M8
STG-01A605J850D	6	90	51	0.7	11	730	4380	67	56	42	29	M8
STG-01A805J850D	8	90	61	0.6	13	440	3520	70	59	44	31	M8
STG-01A106J850D-S1	10	65	125	1.8	14	400	4000	90	76	57	40	M8
STG-01A106J850D-S2	10	90	61	0.5	13	440	4400	75	63	47	33	M8

STG-01A Vndc = 1000V / Vrms = 550Vac / Vpeak = 1600V 10s / Vsurge = 2000V 10s/day

Part Number	Cn uF	Diameter D mm	Length L Mm	ESR mohm 100khz	ESL nH	dv/dt v/us 105C	Peak Current I _{peak} A	Irms 70C	Irms 85C	Irms 95C	Irms 105C	d (mm)
STG-01A205J1000D-S1	2	65	51	1.2	11	810	1620	46	39	29	20.	M6
STG-01A205J1000D-S2	2	50	61	1.1	13	550	1100	32	27	20	14	M6
STG-01A255J1000D-S1	2.5	90	51	1.1	11	810	2025	52	44	33	23	M8
STG-01A255J1000D-S2	2.5	65	61	1.1	11	550	1375	40	34	25	17	M6
STG-01A305J1000D-S1	3	90	51	1.0	11	810	2430	58	49	37	25	M8
STG-01A305J1000D-S2	3	65	61	1.0	11	550	1650	48	40	30	21	M8
STG-01A355J1000D	3.5	90	61	0.9	11	810	2835	61	51	38	27	M8
STG-01A405J1000D	4	65	61	0.8	11	550	2200	72	61	45	32	M8
STG-01A505J1000D	5	90	61	0.7	11	550	2750	67	56	42	29	M8
STG-01A605J1000D	6	90	61	0.65	13	550	3300	70	59	44	31	M8



GTO Capacitors STG-01A series

STG-01A $V_{ndc} = 1300V$ / $V_{rms} = 650Vac$ / $V_{peak} = 2100V$ 10s / $V_{surge} = 2600V$ 10s/day

Part Number	C _n uF	Diameter D mm	Length L mm	ESR mohm 100khz	ESL nH	dv/dt v/us 105C	Peak Current I _{peak} A	I _{rms} 70C	I _{rms} 85C	I _{rms} 95C	I _{rms} 105C	d (mm)
STG-01A504J1300D	0.5	50	51	1.4	11	900	450	22	18	14	9	M6
STG-01A105J1300D	1	65	51	1.3	11	900	900	41	34	26	18	M6
STG-01A155J1300D	1.5	65	51	1.1	11	900	1350	46	39	29	20	M6
STG-01A205J1300D	2	65	61	1.0	13	600	1200	40	34	25	17	M6
STG-01A255J1300D	2.5	65	61	0.9	13	600	1500	50	42	31	22	M8
STG-01A305J1300D	3	90	61	0.8	13	600	1800	53	45	33	23	M8
STG-01A355J1300D	3.5	90	61	0.7	13	600	2100	58	49	37	25	M8
STG-01A405J1300D	4	90	61	0.65	13	600	2400	61	51	38	27	M8
STG-01A505J1300D	5	65	125	1.9	14	480	2400	73	62	46	32	M8

STG-01A $V_{ndc} = 1750V$ / $V_{rms} = 800Vac$ / $V_{peak} = 2600V$ 10s / $V_{surge} = 3100V$ 10s/day

Part Number	C _n uF	Diameter D mm	Length L mm	ESR mohm 100khz	ESL nH	dv/dt v/us 105C	Peak Current I _{peak} A	I _{rms} 70C	I _{rms} 85C	I _{rms} 95C	I _{rms} 105C	d (mm)
STG-01A504J1750D	0.5	50	51	1.5	11	1000	500	21	17	13	9	M6
STG-01A105J1750D	1	65	51	1.1	11	1000	1000	37	31	23	16	M6
STG-01A155J1750D	1.5	65	61	1.0	13	1000	1500	33	28	21	14	M6
STG-01A205J1750D	2	90	61	0.9	13	700	1400	47	39	30	21	M6
STG-01A255J1750D	2.5	90	61	0.8	13	700	1750	53	45	33	23	M8
STG-01A305J1750D	3	90	61	0.7	13	700	2100	55	46	35	24	M8
STG-01A355J1750D	3.5	65	170	1.9	17	440	1540	65	55	41	29	M8
STG-01A405J1750D	4	65	170	1.8	17	440	1760	73	62	46	32	M8
STG-01A505J1750D	5	65	170	1.8	17	440	2200	78	66	49	34	M8

STG-01A $V_{ndc} = 2200V$ / $V_{rms} = 1000Vac$ / $V_{peak} = 3600V$ 10s / $V_{surge} = 4500V$ 10s/day

Part Number	C _n uF	Diameter D mm	Length L mm	ESR mohm 100khz	ESL nH	dv/dt v/us 105C	Peak Current I _{peak} A	I _{rms} 70C	I _{rms} 85C	I _{rms} 95C	I _{rms} 105C	d (mm)
STG-01A504J2200D	0.5	65	100	1.1	15	1050	525	31.8	27	20	14	M6
STG-01A804J2200D	0.75	65	100	1.0	15	1050	787	39	33	24	17	M6
STG-01A105J2200D	1	65	100	1.0	15	1050	1050	41	35	26	18.5	M6
STG-01A125J2200D	1.2	90	100	0.8	15	1050	1260	50	43	32	22	M6
STG-01A155J2200D	1.5	90	100	0.8	15	1050	1575	62	53	39	27	M8
STG-01A205J2200D	2	90	100	0.8	15	1050	2100	83	71	53	37	M8
STG-01A255J2200D	2.5	90	100	0.7	15	1050	2625	76	65	48	34	M8
STG-01A305J2200D	3	90	100	0.6	15	1050	3150	95	81	60	42	M8

GTO Capacitors STG-02A series

STG-02A $V_{ndc} = 1300V / V_{rms} = 700Vac / V_{peak} = 2100V$ 10s / $V_{surge} = 2600V$ 10s/day

Part Number	C _n uF	Diameter D mm	Length L mm	ESR mohm 100khz	ESL nH	dv/dt v/us 85C	Peak Current I _{peak} A	I _{rms} 70C	I _{rms} 85C	I _{rms} 95C	I _{rms} 105C	d (mm)
STG-02A334J1300D	0.33	50	57	1.4	11	2100	693	40	32	22	13	M6
STG-02A504J1300D	0.5	50	57	1.2	11	2000	1000	57	45	31	19	M8
STG-02A105J1300D	1	90	57	1.1	11	2000	2000	80	64	44	26	M8
STG-02A155J1300D	1.5	90	57	1.0	11	2000	3000	90	72	50	30	M8

STG-02A $V_{ndc} = 1500V / V_{rms} = 750Vac / V_{peak} = 2400V$ 10s / $V_{surge} = 3000V$ 10s/day

Part Number	C _n uF	Diameter D mm	Length L mm	ESR mohm 100khz	ESL nH	dv/dt v/us 85C	Peak Current I _{peak} A	I _{rms} 70C	I _{rms} 85C	I _{rms} 95C	I _{rms} 105C	d (mm)
STG-02A254J1500D	0.25	50	57	1.6	11	2400	600	33	26	18	11	M6
STG-02A334J1500D	0.33	50	57	1.45	11	2400	792	40	32	22	13	M6
STG-02A504J1500D	0.5	65	57	1.35	11	2400	1200	52	41	29	17	M8
STG-02A105J1500D	1	90	57	1.2	11	2400	2400	80	64	44	26	M8
STG-02A155J1500D	1.2	90	57	1.1	11	2400	2880	90	72	50	30	M8

STG-02A $V_{ndc} = 1650V / V_{rms} = 850Vac / V_{peak} = 2600V$ 10s / $V_{surge} = 3200V$ 10s/day

Part Number	C _n uF	Diameter D mm	Length L mm	ESR mohm 100khz	ESL nH	dv/dt v/us 85C	Peak Current I _{peak} A	I _{rms} 70C	I _{rms} 85C	I _{rms} 95C	I _{rms} 105C	d (mm)
STG-02A254J1650D	0.25	50	57	1.45	11	2960	740	36	28	20	12	M6
STG-02A334J1650D	0.33	50	57	1.35	11	2960	976	46	36	25	15	M6
STG-02A504J1650D	0.5	65	57	1.2	11	2960	1480	59	47	33	19	M8
STG-02A105J1650D	1	90	57	1.1	11	2960	2960	80	64	44	26	M8

STG-02A $V_{ndc} = 2000V / V_{rms} = 1000Vac / V_{peak} = 3100V$ 10s / $V_{surge} = 3800V$ 10s/day

Part Number	C _n uF	Diameter D mm	Length L mm	ESR mohm 100khz	ESL nH	dv/dt v/us 85C	Peak Current I _{peak} A	I _{rms} 70C	I _{rms} 85C	I _{rms} 95C	I _{rms} 105C	d (mm)
STG-02A204J2000D	0.2	50	57	1.6	11	3720	744	35	28	19	11	M6
STG-02A224J2000D	0.22	50	57	1.5	11	3720	818	37	29	20	12	M6
STG-02A254J2000D	0.25	50	57	1.45	11	3720	930	40	32	22	13	M6
STG-02A334J2000D	0.33	65	57	1.4	11	3720	1228	45	36	25	15	M6
STG-02A474J2000D	0.47	65	57	1.3	11	3720	1748	65	52	36	21	M8
STG-02A504J2000D	0.5	90	57	1.2	11	3720	1860	69	55	38	23	M8
STG-02A684J2000D	0.68	90	57	1.1	11	3720	2530	75	60	42	25	M8

For details of individual capacitors, please feel free to contact us.

If Capacitance value, Voltage, Dimension, RMS Current, dv/dt, high peak current and capacitor size not listed above, please contact us for a suggestion suitable for your particular needs.