

IGBT-MP0 series

IGBT Snubber Capacitors Type



◆ Features

- » High peak & RMS current capability
- » Self-healing property.
- » Low DF , Low ESR , Low ESL
- » UL 510 polyester tape wrapping
- » UL 94 V-0 resin end fill (flame retardant execution)

◆ Construction

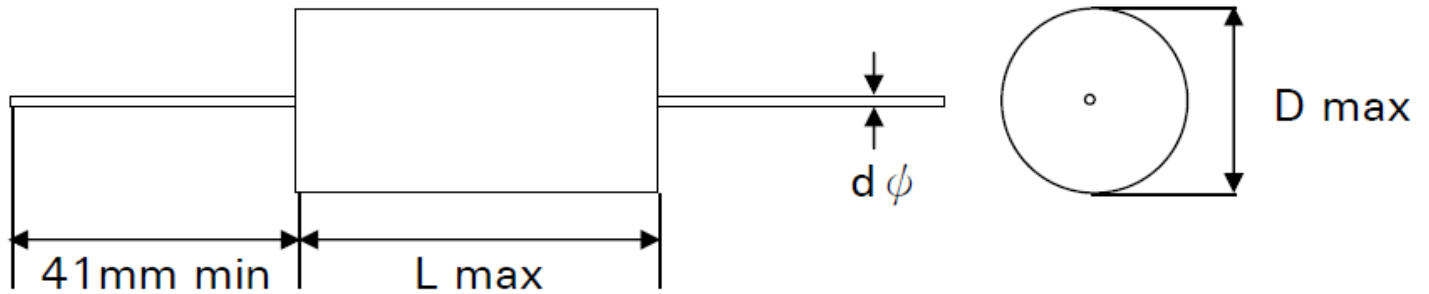
- » THE Type-MP0 is constructed with polypropylene film and dual metallized electrodes for both self healing properties and high peak current carrying capability (dv/dt). This series features very low ESR characteristics, excellent high frequency and high voltage capabilities, Indicate round and axial lead.

◆ Applications

- » Snubber capacitor for energy conversion and control in power semiconductor circuits, protection circuits in SMPSs, induction heaters , high voltage, high current and high pulse applications.

◆ Specification

- » Operating temperature : $-55^{\circ}\text{C} \sim +105^{\circ}\text{C}$ (Full rated voltage at 85°C derated linearly to 50% rated at 105°C)
- » Climatic category : 55/105/56 (IEC 60068-1)
- » Capacitance range : $0.01 \mu\text{F} \sim 4.7 \mu\text{F}$
- » Capacitance tolerance: J= $\pm 5\%$, K= $\pm 10\%$
- » Rated voltage (RV): 600, 850, 1000, 1200, 1600, 2000, 3000 Vdc
- » Dissipation factor (DF): $C \leq 1.0 \mu\text{F}$ DF=0.05% max , $C > 1.0 \mu\text{F}$ DF=0.06% max (at 1KHz 25°C)
- » Testing voltage (TV): 160% of RV applied for 10sec / 200% of RV applied for 2sec.
- » Insulation resistance (IR) 25°C : $C \leq .33 \mu\text{F}$, $\geq 100,000\text{M}\Omega$, $C > .33 \mu\text{F}$, $\geq 33,000\text{M}\Omega \times \mu\text{F}$, Measured at $100 \pm 15\text{vdc}, 60\text{s}$
- » Reference standard : IEC 61071
- » Life expectancy : $\geq 100,000$ hours(RV)



◆ Dimension

600VDC/275VAC

Capacitance (uF)	L mm Max	D mm Max	$d\psi$ mm ± 0.05	ESR (m Ω)	ESL (nH)	dv/dt (V/us)	Ipeak (A)	Irms 70 $^{\circ}$ C (100KHz A)
0.1	34	9	0.8	28	19	196	20	2.5
0.15	34	10.5	0.8	13	20	196	29	4
0.22	34	11.5	0.8	12	20	196	43	4.4
0.33	34	13.5	0.8	9	21	196	65	5.6
0.47	34	15.5	1	7	22	196	92	6.9
0.68	34	18	1	6	23	196	133	8.1
1	34	21	1	6	24	196	196	8.9
1.5	34	25	1.2	5	26	196	294	10.9
2	46	23.5	1.2	5	31	128	256	11.8
3.3	54	27	1.2	4	36	105	347	15.3
4.7	54	31.5	1.2	4	38	105	494	16.8

850VDC/450VAC

Capacitance (uF)	L mm Max	D mm Max	$d\psi$ mm ± 0.05	ESR (m Ω)	ESL (nH)	dv/dt (V/us)	Ipeak (A)	Irms 70 $^{\circ}$ C (100KHz A)
0.15	34	13	0.8	8	21	713	107	5.8
0.22	34	15.5	1	8	22	713	157	6.4
0.33	34	18	1	7	23	713	235	7.5
0.47	34	21	1	5	24	713	335	9.8
0.68	34	24.5	1.2	5	26	713	485	12
1	46	22.5	1.2	5	30	400	400	11.5
1.5	46	27	1.2	4	32	400	600	14.3
2	46	30.5	1.2	3	34	400	800	17.9
2.2	46	32	1.2	3	34	400	880	18.4
2.5	46	34	1.2	3	35	400	1000	19.1

1000VDC/500VAC

Capacitance (uF)	L mm Max	D mm Max	$d\psi$ mm ± 0.05	ESR (m Ω)	ESL (nH)	dv/dt (V/us)	Ipeak (A)	Irms 70 $^{\circ}$ C (100KHz A)
0.15	34	15	1	7	22	856	128	6.7
0.22	34	17.5	1	7	23	856	188	7.4
0.33	34	20.5	1	6	24	856	283	8.8
0.47	34	24	1.2	5	26	856	402	10.6
0.68	34	28	1.2	5	27	856	582	11.7
1	46	26	1.2	5	32	480	480	12.5
1.5	46	31	1.2	4	34	480	720	15.6
2	46	35.5	1.2	3	36	480	960	19.6

1200VDC/500VAC

Capacitance (uF)	L mm Max	D mm Max	dψ mm ±0.05	ESR (mΩ)	ESL (nH)	dv/dt (V/us)	Ipeak (A)	Irms 70°C (100KHz A)
0.1	34	15.5	1	9	22	1142	114	6.1
0.15	34	18.5	1	7	23	1142	171	7.6
0.22	34	21.5	1	7	24	1142	251	8.4
0.33	46	20	1	7	29	640	211	9
0.47	46	23	1.2	7	30	640	301	9.8
0.68	46	27	1.2	6	32	640	435	11.7
1	46	33	1.2	5	35	640	640	14.5
1.5	54	35	1.2	4	39	502	754	17.9

1600VDC/500VAC

Capacitance (uF)	L mm Max	D mm Max	dψ mm ±0.05	ESR (mΩ)	ESL (nH)	dv/dt (V/us)	Ipeak (A)	Irms 70°C (100KHz A)
0.1	34	18	1	7	23	1427	143	7.5
0.15	34	21.5	1	7	24	1427	214	9.9
0.22	34	25.5	1.2	7	26	1427	314	9.3
0.33	46	23.5	1.2	7	31	800	264	10
0.47	46	27.5	1.2	6	32	800	376	11.8
0.68	46	32.5	1.2	6	35	800	544	13.1
1	46	39	1.2	5	37	800	800	16.2
1.5	54	42	1.2	4	42	628	942	20.1

2000VDC/500VAC

Capacitance (uF)	L mm Max	D mm Max	dψ mm ±0.05	ESR (mΩ)	ESL (nH)	dv/dt (V/us)	Ipeak (A)	Irms 70°C (100KHz A)
0.022	34	11.5	0.8	35	20	1712	38	2.6
0.033	34	13.5	0.8	20	21	1712	57	3.8
0.047	34	15	1	12	22	1712	80	5.2
0.068	34	17.5	1	8	23	1712	116	6.9
0.1	34	21	1	8	24	1712	171	8.3
0.15	46	19.5	1	8	29	960	144	8.9
0.22	46	22	1	8	30	960	211	9
0.33	46	27	1.2	8	32	960	317	10.1
0.47	46	32	1.2	6	34	960	451	13
0.56	54	31	1.2	7	37	754	422	12.6
0.68	54	34	1.2	6	39	754	513	14.3
1	54	41	1.2	5	42	754	754	17.7

3000VDC/500VAC

Capacitance (uF)	L mm Max	D mm Max	dψ mm ±0.05	ESR (mΩ)	ESL (nH)	dv/dt (V/us)	Ipeak (A)	Irms 70°C (100KHz A)
0.01	34	11.5	0.8	60	20	2568	26	2
0.015	34	13.5	0.8	40	21	2568	39	2.7
0.022	34	15.5	1	25	22	2568	57	3.6
0.033	34	18	1	14	23	2568	85	5.3
0.047	46	16.5	1	14	28	1440	68	5.7
0.068	46	19	1	12	29	1440	98	6.7
0.1	46	22.5	1.2	10	30	1440	144	8.1
0.15	46	27	1.2	8	32	1440	216	10.1

Please contact us for special dimensions or items not listed.
 All product specification and data are subject to change without notice.