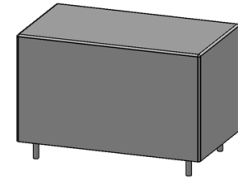


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IGBT Snubber, AC Filter, DC Filter, Power Resoance

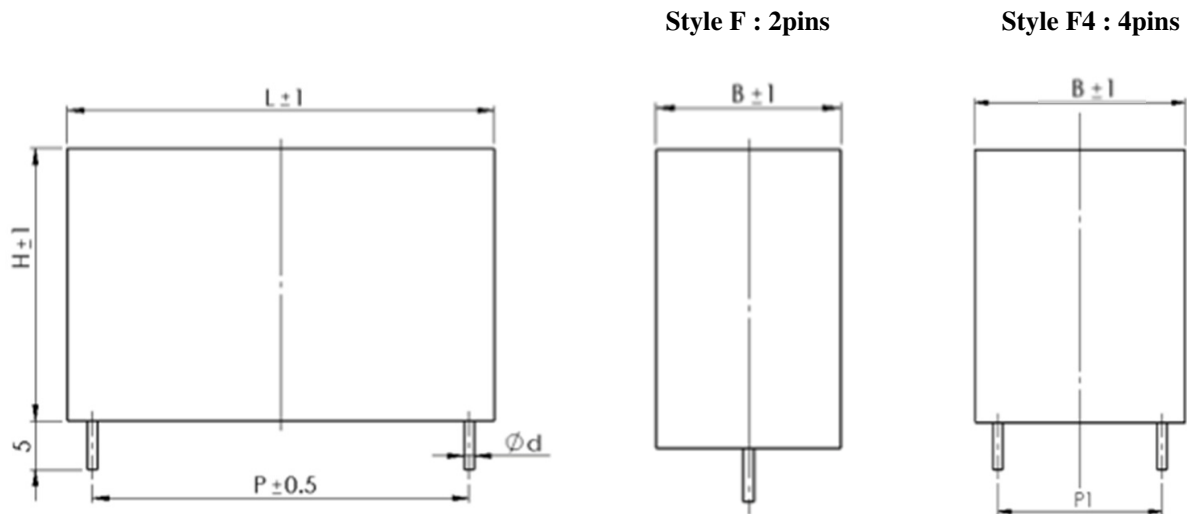
❖ General Description

Standard Reference	IEC 61071
Climatic Category	40 / 85 / 56
Dielectric Material	Self-Healing Metallized Polypropylene
Case Type	Palstic case, Resin filled, UL94V-0
Terminals Type
Capacitance Range	Cn: 0.005 μ F ~ 10.0 μ F (1kHz , 20 $^{\circ}$ C)
Capacitance Tolerance	J (\pm 5%), K (\pm 10%)
Dissipation Factor	tg δ : \leq 0.0006 (1kHz , 20 $^{\circ}$ C)
Insulation Resistance	IR x Cn : \geq 30000s but need not exceed 30GW (100Vdc, 60s, 20 $^{\circ}$ C)
Rated Voltage	Un : 300VDC ~ 5000VDC
Test voltage U _{TT}	U _{TT} : 1.5Un (10s , 20 $^{\circ}$ C) – Test voltage between both terminals
Test voltage U _{TC}	U _{TC} : 3000Vac (10s , 20 $^{\circ}$ C) – Test voltage between terminals with case
Operating Temperature	- 40 $^{\circ}$ C ~ 85 $^{\circ}$ C
Storage Temperature	- 40 $^{\circ}$ C ~ 85 $^{\circ}$ C
Lifetime Expectancy	100,000 hours (Un , 70 $^{\circ}$ C)
Applications	IGBT Snubber , AC Filter, DC Filter , Power Resoance
Remarks	RoHs Compliant on request. Add "R" to p/n. *Other capacitance, voltage and dimensions are available on request.



❖ Outline Drawing

Unit: mm



❖ **Electrical Characteristics**

USM88 Series - PCB

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Part Number	Cn	Un	ESL	dv/dt	I Peak	Irms max.	Dimension (mm)					
	μF	Vdc	nH	V/μs	Amps		L	B	H	P	P1	Ød
Un 700VDC , Urms 400VAC												
USM88-154J700F27.5	0.15	700	20	500	75	4	32	15	25	27.5	-	1.0
USM88-224J700F27.5	0.22	700	20	500	110	5	32	15	25	27.5	-	1.0
USM88-334J700F27.5	0.33	700	20	500	165	6	32	15	25	27.5	-	1.0
USM88-474J700F27.5	0.47	700	20	500	235	8	32	15	25	27.5	-	1.0
USM88-564J700F27.5	0.56	700	20	500	280	9	32	18	33	27.5	-	1.0
USM88-684J700F27.5	0.68	700	20	500	340	10	32	18	33	27.5	-	1.0
USM88-824J700F27.5	0.82	700	20	500	410	12	32	22	37	27.5	-	1.2
USM88-105J700F27.5	1.0	700	20	500	500	12	32	22	37	27.5	-	1.2
USM88-684J700F437.5	0.68	700	24	400	272	15	42.5	24.5	27.5	37.5	20.3	1.2
USM88-105J700F437.5	1.0	700	24	400	400	18	42.5	24.5	27.5	37.5	20.3	1.2
USM88-125J700F437.5	1.2	700	24	400	480	20	42.5	24.5	27.5	37.5	20.3	1.2
USM88-155J700F437.5	1.5	700	24	400	600	21	42.5	24.5	27.5	37.5	20.3	1.2
USM88-205J700F437.5	2.0	700	24	400	800	22	42.5	34	36	37.5	20.3	1.2
USM88-225J700F437.5	2.2	700	24	400	880	22	42.5	34	36	37.5	20.3	1.2
USM88-255J700F437.5	2.5	700	24	400	1000	24	42.5	34	36	37.5	20.3	1.2
USM88-305J700F437.5	3.0	700	24	400	1200	25	42.5	33	45	37.5	20.3	1.2
USM88-335J700F437.5	3.3	700	24	400	1320	25	42.5	33	45	37.5	20.3	1.2
USM88-355J700F437.5	3.5	700	24	400	1400	26	42.5	33	45	37.5	20.3	1.2
USM88-205J700F452.5	2.0	700	28	300	600	20	57.5	30	45	52.5	20.3	1.2
USM88-305J700F452.5	3.0	700	28	300	900	22	57.5	30	45	52.5	20.3	1.2
USM88-405J700F452.5	4.0	700	28	300	1200	23	57.5	35	50	52.5	20.3	1.2
USM88-475J700F452.5	4.7	700	28	300	1410	24	57.5	35	50	52.5	20.3	1.2
USM88-505J700F452.5	5.0	700	28	300	1500	25	57.5	35	50	52.5	20.3	1.2
USM88-565J700F452.5	5.6	700	28	300	1680	25	57.5	42.5	56	52.5	20.3	1.2
USM88-685J700F452.5	6.8	700	28	300	2040	26	57.5	42.5	56	52.5	20.3	1.2
USM88-855J700F452.5	8.5	700	28	300	2550	27	57.5	42.5	56	52.5	20.3	1.2
USM88-106J700F452.5	10	700	28	300	3000	28	57.5	42.5	56	52.5	20.3	1.2

❖ **Electrical Characteristics****USM88 Series - PCB**www.oneontatechnologieis.com

Part Number	Cn	Un	ESL	dv/dt	I Peak	Irms max.	Dimension (mm)					
	μF	Vdc	nH	V/μs	Amps	A	L	B	H	P	P1	Ød
Un 850VDC , Urms 450VAC												
USM88-154J850F27.5	0.15	850	20	700	105	5	32	15	25	27.5	-	1.0
USM88-224J850F27.5	0.22	850	20	700	154	6	32	15	25	27.5	-	1.0
USM88-334J850F27.5	0.33	850	20	700	231	7	32	15	25	27.5	-	1.0
USM88-474J850F27.5	0.47	850	20	700	329	8	32	18	33	27.5	-	1.0
USM88-564J850F27.5	0.56	850	20	700	392	9	32	18	33	27.5	-	1.0
USM88-684J850F27.5	0.68	850	20	700	476	10	32	22	37	27.5	-	1.0
USM88-474J850F437.5	0.47	850	24	450	212	14	42.5	24.5	27.5	37.5	20.3	1.2
USM88-564J850F437.5	0.56	850	24	450	252	15	42.5	24.5	27.5	37.5	20.3	1.2
USM88-684J850F437.5	0.68	850	24	450	306	15	42.5	24.5	27.5	37.5	20.3	1.2
USM88-824J850F437.5	0.82	850	24	450	369	15	42.5	24.5	27.5	37.5	20.3	1.2
USM88-105J850F437.5	1.0	850	24	450	450	16	42.5	34	36	37.5	20.3	1.2
USM88-125J850F437.5	1.2	850	24	450	540	17	42.5	34	36	37.5	20.3	1.2
USM88-155J850F437.5	1.5	850	24	450	675	18	42.5	34	36	37.5	20.3	1.2
USM88-205J850F437.5	2.0	850	24	450	900	20	42.5	34	36	37.5	20.3	1.2
USM88-225J850F437.5	2.2	850	24	450	990	21	42.5	33	45	37.5	20.3	1.2
USM88-255J850F437.5	2.5	850	24	450	1125	22	42.5	33	45	37.5	20.3	1.2
USM88-205J850F452.5	2.0	850	28	350	700	19	57.5	30	45	52.5	20.3	1.2
USM88-225J850F452.5	2.2	850	28	350	770	20	57.5	30	45	52.5	20.3	1.2
USM88-255J850F452.5	2.5	850	28	350	875	21	57.5	30	45	52.5	20.3	1.2
USM88-305J850F452.5	3.0	850	28	350	1050	22	57.5	30	45	52.5	20.3	1.2
USM88-405J850F452.5	4.0	850	28	350	1400	23	57.5	35	50	52.5	20.3	1.2
USM88-475J850F452.5	4.7	850	28	350	1645	24	57.5	35	50	52.5	20.3	1.2
USM88-505J850F452.5	5.0	850	28	350	1750	25	57.5	42.5	56	52.5	20.3	1.2
USM88-565J850F452.5	5.6	850	28	350	1960	26	57.5	42.5	56	52.5	20.3	1.2
USM88-685J850F452.5	6.8	850	28	350	2380	27	57.5	42.5	56	52.5	20.3	1.2

❖ **Electrical Characteristics****USM88 Series - PCB**www.oneontatechnologies.com

Part Number	Cn	Un	ESL	dv/dt	I Peak	Irms max.	Dimension (mm)					
	μF	Vdc	nH	V/μs	Amps	A	L	B	H	P	P1	Ød
<i>Un 1200VDC , Urms 500VAC</i>												
USM88-104J1200F27.5	0.1	1200	20	1200	120	5	32	15	25	27.5	-	1.0
USM88-154J1200F27.5	0.15	1200	20	1200	180	6	32	15	25	27.5	-	1.0
USM88-224J1200F27.5	0.22	1200	20	1200	264	9	32	18	33	27.5	-	1.0
USM88-334J1200F27.5	0.33	1200	20	1200	396	10	32	18	33	27.5	-	1.0
USM88-154J1200F37.5	0.15	1200	24	700	105	5	42.5	17	28	37.5	-	1.0
USM88-224J1200F37.5	0.22	1200	24	700	154	6	42.5	17	28	37.5	-	1.0
USM88-334J1200F437.5	0.33	1200	24	700	231	12	42.5	24.5	27.5	37.5	20.3	1.2
USM88-474J1200F437.5	0.47	1200	24	700	329	14	42.5	24.5	27.5	37.5	20.3	1.2
USM88-564J1200F437.5	0.56	1200	24	700	392	15	42.5	24.5	27.5	37.5	20.3	1.2
USM88-684J1200F437.5	0.68	1200	24	700	476	15	42.5	34	36	37.5	20.3	1.2
USM88-824J1200F437.5	0.82	1200	24	700	574	16	42.5	34	36	37.5	20.3	1.2
USM88-105J1200F437.5	1.0	1200	24	700	700	18	42.5	34	36	37.5	20.3	1.2
USM88-125J1200F437.5	1.2	1200	24	700	840	19	42.5	33	45	37.5	20.3	1.2
USM88-155J1200F437.5	1.5	1200	24	700	1050	20	42.5	33	45	37.5	20.3	1.2
USM88-105J1200F452.5	1.0	1200	28	450	450	17	57.5	30	45	52.5	20.3	1.2
USM88-155J1200F452.5	1.5	1200	28	450	675	18	57.5	30	45	52.5	20.3	1.2
USM88-205J1200F452.5	2.0	1200	28	450	900	19	57.5	30	45	52.5	20.3	1.2
USM88-225J1200F452.5	2.2	1200	28	450	990	20	57.5	35	50	52.5	20.3	1.2
USM88-255J1200F452.5	2.5	1200	28	450	1125	21	57.5	35	50	52.5	20.3	1.2
USM88-305J1200F452.5	3.0	1200	28	450	1350	22	57.5	35	50	52.5	20.3	1.2
USM88-405J1200F452.5	4.0	1200	28	450	1800	25	57.5	42.5	56	52.5	20.3	1.2
USM88-455J1200F452.5	4.5	1200	28	450	2025	26	57.5	42.5	56	52.5	20.3	1.2

❖ **Electrical Characteristics****USM88 Series - PCB**www.oneontatechnologies.com

Part Number	Cn	Un	ESL	dv/dt	I Peak	Irms max.	Dimension (mm)					
	μF	Vdc	nH	V/μs	Amps	A	L	B	H	P	P1	Ød
<i>Un 1600VDC , Urms 600VAC</i>												
USM88-104J1600F37.5	0.1	1600	24	900	90	5	42.5	17	28	37.5	-	1.0
USM88-154J1600F37.5	0.15	1600	24	900	135	6	42.5	17	28	37.5	-	1.0
USM88-224J1600F37.5	0.22	1600	24	900	198	7	42.5	17	28	37.5	-	1.0
USM88-334J1600F437.5	0.33	1600	24	900	297	14	42.5	24.5	27.5	37.5	20.3	1.0
USM88-474J1600F437.5	0.47	1600	24	900	423	15	42.5	34	36	37.5	20.3	1.2
USM88-564J1600F437.5	0.56	1600	24	900	504	16	42.5	34	36	37.5	20.3	1.2
USM88-684J1600F437.5	0.68	1600	24	900	612	17	42.5	34	36	37.5	20.3	1.2
USM88-824J1600F437.5	0.82	1600	24	900	738	18	42.5	34	36	37.5	20.3	1.2
USM88-105J1600F437.5	1.0	1600	24	900	900	20	42.5	33	45	37.5	20.3	1.2
USM88-125J1600F452.5	1.2	1600	28	650	780	21	57.5	30	45	52.5	20.3	1.2
USM88-155J1600F452.5	1.5	1600	28	650	975	22	57.5	35	50	52.5	20.3	1.2
USM88-205J1600F452.5	2.0	1600	28	650	1300	23	57.5	35	50	52.5	20.3	1.2
USM88-225J1600F452.5	2.2	1600	28	650	1430	23	57.5	42.5	56	52.5	20.3	1.2
USM88-255J1600F452.5	2.5	1600	28	650	1625	24	57.5	42.5	56	52.5	20.3	1.2
USM88-285J1600F452.5	2.8	1600	28	650	1820	25	57.5	42.5	56	52.5	20.3	1.2
<i>Un 2000VDC , Urms 650VAC</i>												
USM88-104J2000F37.5	0.1	2000	24	1100	110	5	42.5	17	28	37.5	-	1.0
USM88-154J2000F37.5	0.15	2000	24	1100	165	6	42.5	17	28	37.5	-	1.0
USM88-224J2000F437.5	0.22	2000	24	1100	242	14	42.5	24.5	27.5	37.5	20.3	1.2
USM88-334J2000F437.5	0.33	2000	24	1100	363	15	42.5	24.5	27.5	37.5	20.3	1.2
USM88-474J2000F437.5	0.47	2000	24	1100	517	16	42.5	34	36	37.5	20.3	1.2
USM88-564J2000F437.5	0.56	2000	24	1100	616	17	42.5	34	36	37.5	20.3	1.2
USM88-684J2000F437.5	0.68	2000	24	1100	748	18	42.5	34	36	37.5	20.3	1.2
USM88-824J2000F437.5	0.82	2000	24	1100	902	20	42.5	33	45	37.5	20.3	1.2
USM88-105J2000F452.5	1.0	2000	24	700	700	22	57.5	30	45	52.5	20.3	1.2
USM88-125J2000F452.5	1.2	2000	28	700	840	23	57.5	35	50	52.5	20.3	1.2
USM88-155J2000F452.5	1.5	2000	28	700	1050	24	57.5	35	50	52.5	20.3	1.2
USM88-205J2000F452.5	2.0	2000	28	700	1400	25	57.5	42.5	56	52.5	20.3	1.2

❖ Electrical Characteristics

USM88 Series - PCB

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Part Number	Cn	Un	ESL	dv/dt	I Peak	Irms max.	Dimension (mm)					
	μF	Vdc	nH	V/μs	Amps	A	L	B	H	P	P1	Ød
Un 3000VDC , Urms 750VAC												
USM88-103J3000F37.5	0.01	3000	24	1500	15	3	42.5	17	28	37.5	-	1.0
USM88-153J3000F37.5	0.015	3000	24	1500	22.5	4	42.5	17	28	37.5	-	1.0
USM88-223J3000F37.5	0.022	3000	24	1500	33	5	42.5	17	28	37.5	-	1.0
USM88-333J3000F37.5	0.033	3000	24	1500	49.5	6	42.5	17	28	37.5	-	1.0
USM88-473J3000F37.5	0.047	3000	24	1500	70.5	7	42.5	17	28	37.5	-	1.0
USM88-563J3000F37.5	0.056	3000	24	1500	84	8	42.5	17	28	37.5	-	1.0
USM88-683J3000F37.5	0.068	3000	24	1500	102	9	42.5	17	28	37.5	-	1.2
USM88-823J3000F37.5	0.082	3000	24	1500	123	10	42.5	17	28	37.5	-	1.2
USM88-104J3000F437.5	0.1	3000	28	1500	150	13	42.5	24.5	27.5	37.5	20.3	1.2
USM88-154J3000F437.5	0.15	3000	28	1500	225	15	42.5	24.5	27.5	37.5	20.3	1.2
USM88-224J3000F437.5	0.22	3000	28	1500	330	17	42.5	34	36	37.5	20.3	1.2
USM88-334J3000F437.5	0.33	3000	28	1500	495	19	42.5	34	36	37.5	20.3	1.2
USM88-474J3000F437.5	0.47	3000	28	1500	705	21	42.5	33	45	37.5	20.3	1.2
USM88-104J3000F452.5	0.1	3000	32	800	80	11	57.5	30	45	52.5	20.3	1.2
USM88-154J3000F452.5	0.15	3000	32	800	120	13	57.5	30	45	52.5	20.3	1.2
USM88-224J3000F452.5	0.22	3000	32	800	176	15	57.5	30	45	52.5	20.3	1.2
USM88-334J3000F452.5	0.33	3000	32	800	264	18	57.5	30	45	52.5	20.3	1.2
USM88-474J3000F452.5	0.47	3000	32	800	376	20	57.5	30	45	52.5	20.3	1.2
USM88-564J3000F452.5	0.56	3000	32	800	448	22	57.5	35	50	52.5	20.3	1.2
USM88-684J3000F452.5	0.68	3000	32	800	544	23	57.5	35	50	52.5	20.3	1.2
USM88-824J3000F452.5	0.82	3000	32	800	656	24	57.5	42.5	56	52.5	20.3	1.2
USM88-105J3000F452.5	1.0	3000	32	800	800	25	57.5	42.5	56	52.5	20.3	1.2

*Other capacitance , voltage and dimension are available on request.

ΔVersion: 2016-1.0

❖ Part Number System

EX: USM88-474J1200F437.5

USM88	-	474	J	1200	F4	37.5
⋮		⋮	⋮	⋮	⋮	⋮
Series		Capacitance	Tolerance	Voltage	Style	P
		474=0.47μF	J=±5%	VDC	F=2pins	
		105=1.0μF	K=±10%		F4=4pins	

6

87 Browne St. Oneonta, NY 13820 Ph: 607-432-3880