

# EMI Suppression Capacitors X1 Class 1000VDC

ME1X-1K0D Series

**MERITEK**

## FEATURE

- Self-Healing Property
- Dielectric: Metallized Polypropylene Film
- Winding: Non-Inductive Type
- Over Voltage Stress Withstanding
- Flammability Classification 94V-0
- UL/cUL Safety Approved: Certification No: E197475



## PART NUMBERING SYSTEM

ME1X    223    K    1K0D    xxx  
(1)        (2)        (3)        (4)        (5)



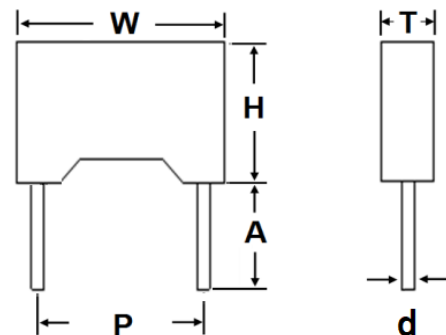
No	Item	Digit	Description	Reference
(1)	Meritek Series	ME1X	EMI Suppression Capacitors	X1 Class Safety Film Capacitor
(2)	Capacitance	223	223: 22000pF	First two digits: Significant, Third: Multiplier
(3)	Tolerance	K	K: $\pm 10\%$	$\pm 5\%$ (J), $\pm 20\%$ (M)
(4)	Rated Voltage	1K0D	1K0D: 1000VDC	1K3D: 1350VDC, 1K5D: 1500VDC
(5)	Internal Code	xxx	Pitch or Internal control code	Internal Control or project reference

## SPECIFICATIONS

Item	Characteristic	
Operating Temperature Range	-40°C ~ +110°C	
Rated Voltage , Climate Category	1000VDC	40/110/56/B
Capacitance, Tolerance	0.001 $\mu$ F ~ 10.0 $\mu$ F	$\pm 5\%$ (J), $\pm 10\%$ (K), $\pm 20\%$ (M)
Dissipation Factor (tan $\delta$ )	$\leq 0.1\%$	at 1KHz $\pm 2\%$ , $\leq 1.0V_{RMS}$
Insulation resistance at 100V <sub>DC</sub> , Change Time: 60s $\pm 5s$	$\geq 15,000M\Omega$ (C $\leq 0.33\mu$ F)	$\geq 5,000M\Omega \cdot \mu$ F/C (C $> 0.33\mu$ F)
Withstanding Voltage	<b>Between Terminals</b>	<b>Between Terminals and Case</b>
	4.3*U <sub>rDC</sub> for 60s	2*U <sub>r</sub> +1.5KV <sub>AC</sub> for 2~5s, Min 2KV <sub>AC</sub>

## DIMENSION

P (mm)	d (mm)	W, H, T (mm)
7.5	0.6	See Table Attached
10.0	0.6	
15.0	0.6	
22.5	0.8	
27.5	0.8	
32.5	0.8	
37.5	1.0	
47.5	1.0	
52.5	1.0	



Note:

1. Standard lead length A: 15mm min.
2. Contact Meritek for other available options for lead forming or assembly

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## ELECTRICAL SPECIFICATION – 1000VDC

Part Number	Cap Code	Cap	Tol	Volt	W	H	T	P	d	Safety
		(uF)	(%)	(V <sub>DC</sub> )	(mm)	(mm)	(mm)	(mm)	(mm)	Compliance
ME1X102□1K0D75	102	0.0010	J,K,M	1000	10.5	9.0	4.0	7.5	0.6	UL,cUL,ENEC
ME1X102□1K0D10	102	0.0010	J,K,M	1000	13.0	11.0	5.0	10.0	0.6	UL,cUL,ENEC
ME1X102□1K0D15	102	0.0010	J,K,M	1000	18.0	11.0	5.0	15.0	0.6	UL,cUL,ENEC
ME1X152□1K0D75	152	0.0015	J,K,M	1000	10.5	9.0	4.0	7.5	0.6	UL,cUL,ENEC
ME1X152□1K0D10	152	0.0015	J,K,M	1000	13.0	11.0	5.0	10.0	0.6	UL,cUL,ENEC
ME1X152□1K0D15	152	0.0015	J,K,M	1000	18.0	11.0	5.0	15.0	0.6	UL,cUL,ENEC
ME1X222□1K0D75	222	0.0022	J,K,M	1000	10.5	9.0	4.0	7.5	0.6	UL,cUL,ENEC
ME1X222□1K0D10	222	0.0022	J,K,M	1000	13.0	11.0	5.0	10.0	0.6	UL,cUL,ENEC
ME1X222□1K0D15	222	0.0022	J,K,M	1000	18.0	11.0	5.0	15.0	0.6	UL,cUL,ENEC
ME1X272□1K0D75	272	0.0027	J,K,M	1000	10.5	9.0	4.0	7.5	0.6	UL,cUL,ENEC
ME1X272□1K0D10	272	0.0027	J,K,M	1000	13.0	11.0	5.0	10.0	0.6	UL,cUL,ENEC
ME1X272□1K0D15	272	0.0027	J,K,M	1000	18.0	11.0	5.0	15.0	0.6	UL,cUL,ENEC
ME1X332□1K0D75	332	0.0033	J,K,M	1000	10.5	9.0	4.0	7.5	0.6	UL,cUL,ENEC
ME1X332□1K0D10	332	0.0033	J,K,M	1000	13.0	11.0	5.0	10.0	0.6	UL,cUL,ENEC
ME1X332□1K0D15	332	0.0033	J,K,M	1000	18.0	11.0	5.0	15.0	0.6	UL,cUL,ENEC
ME1X392□1K0D75	392	0.0039	J,K,M	1000	10.5	9.0	4.0	7.5	0.6	UL,cUL,ENEC
ME1X392□1K0D10	392	0.0039	J,K,M	1000	13.0	11.0	5.0	10.0	0.6	UL,cUL,ENEC
ME1X392□1K0D15	392	0.0039	J,K,M	1000	18.0	11.0	5.0	15.0	0.6	UL,cUL,ENEC
ME1X472□1K0D75	472	0.0047	J,K,M	1000	10.5	9.0	4.0	7.5	0.6	UL,cUL,ENEC
ME1X472□1K0D10	472	0.0047	J,K,M	1000	13.0	11.0	5.0	10.0	0.6	UL,cUL,ENEC
ME1X472□1K0D15	472	0.0047	J,K,M	1000	18.0	11.0	5.0	15.0	0.6	UL,cUL,ENEC
ME1X562□1K0D75	562	0.0056	J,K,M	1000	10.5	9.0	4.0	7.5	0.6	UL,cUL,ENEC
ME1X562□1K0D10	562	0.0056	J,K,M	1000	13.0	11.0	5.0	10.0	0.6	UL,cUL,ENEC
ME1X562□1K0D15	562	0.0056	J,K,M	1000	18.0	11.0	5.0	15.0	0.6	UL,cUL,ENEC
ME1X682□1K0D75	682	0.0068	J,K,M	1000	10.5	11.0	5.0	7.5	0.6	UL,cUL,ENEC
ME1X682□1K0D10	682	0.0068	J,K,M	1000	13.0	11.0	5.0	10.0	0.6	UL,cUL,ENEC
ME1X682□1K0D15	682	0.0068	J,K,M	1000	18.0	11.0	5.0	15.0	0.6	UL,cUL,ENEC
ME1X882□1K0D75	882	0.0082	J,K,M	1000	10.5	11.0	5.0	7.5	0.6	UL,cUL,ENEC
ME1X882□1K0D10	882	0.0082	J,K,M	1000	13.0	11.0	5.0	10.0	0.6	UL,cUL,ENEC
ME1X882□1K0D15	882	0.0082	J,K,M	1000	18.0	11.0	5.0	15.0	0.6	UL,cUL,ENEC
ME1X103□1K0D75	103	0.010	J,K,M	1000	10.5	11.0	5.0	7.5	0.6	UL,cUL,ENEC
ME1X103□1K0D10	103	0.010	J,K,M	1000	13.0	11.0	5.0	10.0	0.6	UL,cUL,ENEC
ME1X103□1K0D15	103	0.010	J,K,M	1000	18.0	11.0	5.0	15.0	0.6	UL,cUL,ENEC
ME1X123□1K0D75	123	0.012	J,K,M	1000	10.5	12.0	6.0	7.5	0.6	UL,cUL,ENEC
ME1X123□1K0D10	123	0.012	J,K,M	1000	13.0	11.0	5.0	10.0	0.6	UL,cUL,ENEC

Note: 1. □: denotes tolerance code; 2. \*: Contact Meritek for Part Number

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## ELECTRICAL SPECIFICATION – 1000VDC

Part Number	Cap Code	Cap	Tol	Volt	W	H	T	P	d	Safety
		(uF)	(%)	(V <sub>DC</sub> )	(mm)	(mm)	(mm)	(mm)	(mm)	Compliance
ME1X123□1K0D15	123	0.012	J,K,M	1000	18.0	11.0	5.0	15.0	0.6	UL,cUL,ENEC
ME1X153□1K0D75	153	0.015	M	1000	10.5	12.0	6.0	7.5	0.6	UL,cUL,ENEC
ME1X153□1K0D10	153	0.015	J,K,M	1000	13.0	11.0	5.0	10.0	0.6	UL,cUL,ENEC
ME1X153□1K0D15	153	0.015	J,K,M	1000	18.0	11.0	5.0	15.0	0.6	UL,cUL,ENEC
ME1X183□1K0D10	183	0.018	J,K,M	1000	13.0	11.0	5.0	10.0	0.6	UL,cUL,ENEC
ME1X183□1K0D15	183	0.018	J,K,M	1000	18.0	11.0	5.0	15.0	0.6	UL,cUL,ENEC
ME1X223□1K0D10	223	0.022	J,K,M	1000	13.0	11.0	5.0	10.0	0.6	UL,cUL,ENEC
ME1X223□1K0D15	223	0.022	J,K,M	1000	18.0	11.0	5.0	15.0	0.6	UL,cUL,ENEC
ME1X273□1K0D10	273	0.027	J,K,M	1000	13.0	12.0	6.0	10.0	0.6	UL,cUL,ENEC
ME1X273□1K0D15	273	0.027	J,K,M	1000	18.0	11.0	5.0	15.0	0.6	UL,cUL,ENEC
ME1X333□1K0D10	333	0.033	J,K,M	1000	13.0	12.0	6.0	10.0	0.6	UL,cUL,ENEC
ME1X333□1K0D15	333	0.033	J,K,M	1000	18.0	11.0	5.0	15.0	0.6	UL,cUL,ENEC
ME1X393□1K0D10	393	0.039	J,K,M	1000	13.0	13.0	7.0	10.0	0.6	UL,cUL,ENEC
ME1X393□1K0D15	393	0.039	J,K,M	1000	18.0	12.0	6.0	15.0	0.6	UL,cUL,ENEC
ME1X393□1K0D22	393	0.039	J,K,M	1000	25.0	14.5	6.0	22.5	0.8	UL,cUL,ENEC
ME1X473□1K0D10	473	0.047	M	1000	13.0	13.0	7.0	10.0	0.6	UL,cUL,ENEC
ME1X473□1K0D15	473	0.047	J,K,M	1000	18.0	12.0	6.0	15.0	0.6	UL,cUL,ENEC
ME1X473□1K0D22	473	0.047	J,K,M	1000	25.0	14.5	6.0	22.5	0.8	UL,cUL,ENEC
ME1X563□1K0D10	563	0.056	J,K,M	1000	13.0	14.0	8.0	10.0	0.6	UL,cUL,ENEC
ME1X563□1K0D15A	563	0.056	M	1000	18.0	12.0	6.0	15.0	0.6	UL,cUL,ENEC
ME1X563□1K0D15B	563	0.056	J,K,M	1000	18.0	13.5	6.0	15.0	0.6	UL,cUL,ENEC
ME1X563□1K0D22	563	0.056	J,K,M	1000	25.0	14.5	6.0	22.5	0.8	UL,cUL,ENEC
ME1X683□1K0D15	683	0.068	J,K,M	1000	17.0	15.5	7.5	15.0	0.6	UL,cUL,ENEC
ME1X683□1K0D22	683	0.068	J,K,M	1000	25.0	14.5	6.0	22.5	0.8	UL,cUL,ENEC
ME1X823□1K0D15	823	0.082	J,K,M	1000	17.0	15.5	7.5	15.0	0.6	UL,cUL,ENEC
ME1X823□1K0D22	823	0.082	J,K,M	1000	25.0	14.5	6.0	22.5	0.8	UL,cUL,ENEC
ME1X104□1K0D15A	104	0.10	M	1000	17.0	15.5	7.5	15.0	0.6	UL,cUL,ENEC
ME1X104□1K0D15B	104	0.10	J,K,M	1000	18.0	14.5	8.5	15.0	0.6	UL,cUL,ENEC
ME1X104□1K0D22	104	0.10	J,K,M	1000	25.0	14.5	6.0	22.5	0.8	UL,cUL,ENEC
ME1X124□1K0D15	124	0.12	J,K,M	1000	17.0	16.5	9.5	15.0	0.6	UL,cUL,ENEC
ME1X124□1K0D22	124	0.12	J,K,M	1000	25.0	14.5	6.0	22.5	0.8	UL,cUL,ENEC
ME1X154□1K0D15A	154	0.15	M	1000	17.0	16.5	9.5	15.0	0.6	UL,cUL,ENEC
ME1X154□1K0D15B	154	0.15	J,K,M	1000	17.0	19.0	11.0	15.0	0.6	UL,cUL,ENEC
ME1X154□1K0D22	154	0.15	J,K,M	1000	26.5	16.5	7.0	22.5	0.8	UL,cUL,ENEC
ME1X154□1K0D27	154	0.15	J,K,M	1000	31.5	16.5	7.5	27.5	0.8	UL,cUL,ENEC

Note: 1. □: denotes tolerance code; 2. \*: Contact Meritek for Part Number

# EMI Suppression Capacitors X1 Class 1000VDC

ME1X-1K0D Series

**MERITEK**

## ELECTRICAL SPECIFICATION – 1000VDC

Part Number	Cap Code	Cap	Tol	Volt	W	H	T	P	d	Safety
		(uF)	(%)	(V <sub>DC</sub> )	(mm)	(mm)	(mm)	(mm)	(mm)	Compliance
ME1X184□1K0D15	184	0.18	J,K,M	1000	17.0	19.0	11.0	15.0	0.6	UL,cUL,ENEC
ME1X184□1K0D22	184	0.18	J,K,M	1000	26.5	17.5	8.5	22.5	0.8	UL,cUL,ENEC
ME1X184□1K0D27	184	0.18	J,K,M	1000	31.5	16.5	7.5	27.5	0.8	UL,cUL,ENEC
ME1X224□1K0D22	224	0.22	J,K,M	1000	26.5	17.5	8.5	22.5	0.8	UL,cUL,ENEC
ME1X224□1K0D27	224	0.22	J,K,M	1000	32.0	18.0	9.0	27.5	0.8	UL,cUL,ENEC
ME1X274□1K0D22	274	0.27	J,K,M	1000	26.5	19.0	10.0	22.5	0.8	UL,cUL,ENEC
ME1X274□1K0D27	274	0.27	J,K,M	1000	32.0	18.0	9.0	27.5	0.8	UL,cUL,ENEC
ME1X304□1K0D37	304	0.30	J,K,M	1000	41.0	22.0	11.0	37.5	1.0	UL,cUL,ENEC
ME1X334□1K0D37	334	0.33	J,K,M	1000	41.0	22.0	11.0	37.5	1.0	UL,cUL,ENEC
ME1X334□1K0D22	334	0.33	J,K,M	1000	26.0	20.0	11.0	22.5	0.8	UL,cUL,ENEC
ME1X334□1K0D27A	334	0.33	J,K,M	1000	31.5	20.0	11.0	27.5	0.8	UL,cUL,ENEC
ME1X334□1K0D27B	334	0.33	J,K,M	1000	32.0	12.0	18.0	27.5	0.8	UL,cUL,ENEC
ME1X334□1K0D32	334	0.33	J,K,M	1000	37.0	24.0	13.5	32.5	0.8	UL,cUL,ENEC
ME1X394□1K0D22	394	0.39	J,K,M	1000	26.0	20.0	11.0	22.5	0.8	UL,cUL,ENEC
ME1X394□1K0D27	394	0.39	J,K,M	1000	31.5	20.0	11.0	27.5	0.8	UL,cUL,ENEC
ME1X394□1K0D32	394	0.39	J,K,M	1000	37.0	24.0	13.5	32.5	0.8	UL,cUL,ENEC
ME1X394□1K0D37	394	0.39	J,K,M	1000	41.0	22.0	11.0	37.5	1.0	UL,cUL,ENEC
ME1X404□1K0D37	404	0.40	J,K,M	1000	41.0	22.0	11.0	37.5	1.0	UL,cUL,ENEC
ME1X474□1K0D22A	474	0.47	M	1000	26.0	21.5	12.0	22.5	0.8	UL,cUL,ENEC
ME1X474□1K0D22B	474	0.47	J,K,M	1000	25.0	23.5	14.0	22.5	0.8	UL,cUL,ENEC
ME1X474□1K0D27A	474	0.47	M	1000	31.5	20.0	11.0	27.5	0.8	UL,cUL,ENEC
ME1X474□1K0D27B	474	0.47	J,K,M	1000	32.0	22.0	12.0	27.5	0.8	UL,cUL,ENEC
ME1X474□1K0D32	474	0.47	J,K,M	1000	37.0	24.0	13.5	32.5	0.8	UL,cUL,ENEC
ME1X474□1K0D37	474	0.47	J,K,M	1000	41.0	22.0	11.0	37.5	1.0	UL,cUL,ENEC
ME1X504□1K0D37	504	0.50	J,K,M	1000	41.0	22.0	11.0	37.5	1.0	UL,cUL,ENEC
ME1X524□1K0D22	524	0.52	J,K,M	1000	25.0	23.5	14.0	22.5	0.8	UL,cUL,ENEC
ME1X564□1K0D22A	564	0.56	M	1000	25.0	23.5	14.0	22.5	0.8	UL,cUL,ENEC
ME1X564□1K0D22B	564	0.56	J,K,M	1000	26.0	25.0	15.0	22.5	0.8	UL,cUL,ENEC
ME1X564□1K0D27	564	0.56	J,K,M	1000	31.5	22.5	13.0	27.5	0.8	UL,cUL,ENEC
ME1X564□1K0D32	564	0.56	J,K,M	1000	37.0	24.0	13.5	32.5	0.8	UL,cUL,ENEC
ME1X564□1K0D37	564	0.56	J,K,M	1000	41.0	22.0	11.0	37.5	1.0	UL,cUL,ENEC
ME1X604□1K0D27	604	0.60	J,K,M	1000	31.5	25.0	14.0	27.5	0.8	UL,cUL,ENEC
ME1X684□1K0D22	684	0.68	M	1000	26.0	25.0	15.0	22.5	0.8	UL,cUL,ENEC
ME1X684□1K0D27A	684	0.68	M	1000	31.5	22.5	13.0	27.5	0.8	UL,cUL,ENEC
ME1X684□1K0D27B	684	0.68	J,K,M	1000	31.5	25.0	14.0	27.5	0.8	UL,cUL,ENEC

Note: 1. □: denotes tolerance code; 2. \*: Contact Meritek for Part Number

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ME1X-1K0D Series

**MERITEK**

## ELECTRICAL SPECIFICATION – 1000VDC

Part Number	Cap Code	Cap	Tol	Volt	W	H	T	P	d	Safety
		(uF)	(%)	(V <sub>DC</sub> )	(mm)	(mm)	(mm)	(mm)	(mm)	Compliance
ME1X684□1K0D27C	684	0.68	J,K,M	1000	32.0	16.0	22.0	27.5	0.8	UL,cUL,ENEC
ME1X684□1K0D32	684	0.68	J,K,M	1000	37.0	24.0	13.5	32.5	0.8	UL,cUL,ENEC
ME1X684□1K0D37	684	0.68	J,K,M	1000	41.0	22.0	11.0	37.5	1.0	UL,cUL,ENEC
ME1X804□1K0D32	804	0.80	J,K,M	1000	37.0	26.5	16.0	32.5	0.8	UL,cUL,ENEC
ME1X824□1K0D27A	824	0.82	M	1000	31.5	25.0	14.0	27.5	0.8	UL,cUL,ENEC
ME1X824□1K0D27B	824	0.82	J,K,M	1000	32.0	28.0	14.0	27.5	0.8	UL,cUL,ENEC
ME1X824□1K0D32	824	0.82	M	1000	37.0	24.0	13.5	32.5	0.8	UL,cUL,ENEC
ME1X824□1K0D37A	824	0.82	M	1000	41.0	22.0	11.0	37.5	1.0	UL,cUL,ENEC
ME1X824□1K0D37B	824	0.82	J,K,M	1000	41.0	26.0	12.0	37.5	1.0	UL,cUL,ENEC
ME1X105□1K0D27A	105	1.0	M	1000	32.0	16.0	27.5	27.5	0.8	UL,cUL,ENEC
ME1X105□1K0D27B	105	1.0	J,K,M	1000	32.0	18.5	31.0	27.5	0.8	UL,cUL,ENEC
ME1X105□1K0D27C	105	1.0	J,K,M	1000	32.0	28.0	18.0	27.5	0.8	UL,cUL,ENEC
ME1X105□1K0D32A	105	1.0	M	1000	37.0	26.5	16.0	32.5	0.8	UL,cUL,ENEC
ME1X105□1K0D32B	105	1.0	J,K,M	1000	37.0	28.5	18.0	32.5	0.8	UL,cUL,ENEC
ME1X105□1K0D37A	105	1.0	J,K,M	1000	41.0	26.0	12.0	37.5	1.0	UL,cUL,ENEC
ME1X105□1K0D37B	105	1.0	J,K,M	1000	42.0	15.0	24.0	37.5	1.0	UL,cUL,ENEC
ME1X125□1K0D27A	125	1.2	M	1000	32.0	28.0	18.0	27.5	0.8	UL,cUL,ENEC
ME1X125□1K0D27B	125	1.2	J,K,M	1000	32.0	29.0	19.0	27.5	0.8	UL,cUL,ENEC
ME1X125□1K0D32A	125	1.2	M	1000	37.0	28.5	18.0	32.5	0.8	UL,cUL,ENEC
ME1X125□1K0D32B	125	1.2	J,K,M	1000	35.5	31.0	20.0	32.5	0.8	UL,cUL,ENEC
ME1X125□1K0D37A	125	1.2	J,K,M	1000	41.0	26.0	15.0	37.5	1.0	UL,cUL,ENEC
ME1X125□1K0D37B	125	1.2	J,K,M	1000	41.0	28.0	14.0	37.5	1.0	UL,cUL,ENEC
ME1X155□1K0D27A	155	1.5	M	1000	32.0	29.0	19.0	27.5	0.8	UL,cUL,ENEC
ME1X155□1K0D27B	155	1.5	M	1000	32.0	18.5	31.0	27.5	0.8	UL,cUL,ENEC
ME1X155□1K0D27C	155	1.5	J,K,M	1000	31.0	31.0	22.0	27.5	0.8	UL,cUL,ENEC
ME1X155□1K0D32A	155	1.5	M	1000	35.5	31.0	20.0	32.5	0.8	UL,cUL,ENEC
ME1X155□1K0D32B	155	1.5	J,K,M	1000	37.0	34.0	22.0	32.5	0.8	UL,cUL,ENEC
ME1X155□1K0D37A	155	1.5	M	1000	41.0	28.0	14.0	37.5	1.0	UL,cUL,ENEC
ME1X155□1K0D37B	155	1.5	M	1000	41.0	26.0	15.0	37.5	1.0	UL,cUL,ENEC
ME1X155□1K0D37C	155	1.5	J,K,M	1000	41.0	30.0	16.0	37.5	1.0	UL,cUL,ENEC
ME1X155□1K0D37D	155	1.5	J,K,M	1000	42.0	19.0	24.0	37.5	1.0	UL,cUL,ENEC
ME1X185□1K0D27	185	1.8	J,K,M	1000	32.0	37.0	22.0	27.5	0.8	UL,cUL,ENEC
ME1X185□1K0D32	185	1.8	J,K,M	1000	37.0	34.0	22.0	32.5	0.8	UL,cUL,ENEC
ME1X185□1K0D37A	185	1.8	M	1000	41.0	30.0	16.0	37.5	1.0	UL,cUL,ENEC
ME1X185□1K0D37B	185	1.8	J,K,M	1000	41.0	32.0	17.0	37.5	1.0	UL,cUL,ENEC

Note: 1. □: denotes tolerance code; 2. \*: Contact Meritek for Part Number

# EMI Suppression Capacitors X1 Class 1000VDC

ME1X-1K0D Series

**MERITEK**

## ELECTRICAL SPECIFICATION – 1000VDC

Part Number	Cap Code	Cap	Tol	Volt	W	H	T	P	d	Safety
		(uF)	(%)	(V <sub>DC</sub> )	(mm)	(mm)	(mm)	(mm)	(mm)	Compliance
ME1X225□1K0D27	225	2.2	M	1000	32.0	37.0	22.0	27.5	0.8	UL,cUL,ENEC
ME1X225□1K0D32	225	2.2	M	1000	37.0	34.0	22.0	32.5	0.8	UL,cUL,ENEC
ME1X225□1K0D37A	225	2.2	M	1000	41.0	32.0	17.0	37.5	1.0	UL,cUL,ENEC
ME1X255□1K0D37B	255	2.2	J,K,M	1000	41.0	33.5	19.5	37.5	1.0	UL,cUL,ENEC
ME1X275□1K0D37	275	2.7	J,K,M	1000	41.0	37.0	22.0	37.5	1.0	UL,cUL,ENEC
ME1X335□1K0D37A	335	3.3	M	1000	41.0	37.0	22.0	37.5	1.0	UL,cUL,ENEC
ME1X335□1K0D37B	335	3.3	J,K,M	1000	41.5	41.0	27.5	37.5	1.0	UL,cUL,ENEC
ME1X395□1K0D37	395	3.9	J,K,M	1000	41.0	43.0	28.0	37.5	1.0	UL,cUL,ENEC
ME1X445□1K0D37	445	4.4	J,K,M	1000	41.0	43.0	28.0	37.5	1.0	UL,cUL,ENEC
ME1X445□1K0D47	445	4.4	J,K,M	1000	51.0	43.5	29.0	47.5	1.0	UL,cUL,ENEC
ME1X445□1K0D52	445	4.4	J,K,M	1000	57.0	38.0	24.0	52.5	1.0	UL,cUL,ENEC
ME1X475□1K0D37A	475	4.7	M	1000	41.0	43.0	28.0	37.5	1.0	UL,cUL,ENEC
ME1X475□1K0D37B	475	4.7	J,K,M	1000	42.0	45.0	30.0	37.5	1.0	UL,cUL,ENEC
ME1X475□1K0D47	475	4.7	J,K,M	1000	51.0	43.5	29.0	47.5	1.0	UL,cUL,ENEC
ME1X475□1K0D52	475	4.7	J,K,M	1000	57.0	38.0	24.0	52.5	1.0	UL,cUL,ENEC
ME1X565□1K0D47	565	5.6	M	1000	51.0	43.5	29.0	47.5	1.0	UL,cUL,ENEC
ME1X565□1K0D52A	565	5.6	M	1000	57.0	38.0	24.0	52.5	1.0	UL,cUL,ENEC
ME1X565□1K0D52B	565	5.6	J,K,M	1000	57.0	45.0	30.0	52.5	1.0	UL,cUL,ENEC
ME1X685□1K0D47	685	6.8	J,K,M	1000	51.0	49.5	35.0	47.5	1.0	UL,cUL,ENEC
ME1X685□1K0D52A	685	6.8	J,K,M	1000	57.0	50.0	35.0	52.5	1.0	UL,cUL,ENEC
ME1X685□1K0D52B	685	6.8	M	1000	57.0	45.0	30.0	52.5	1.0	UL,cUL,ENEC
ME1X685□1K0D52C	685	6.8	M	1000	57.0	30.0	44.0	52.5	1.0	UL,cUL,ENEC
ME1X825□1K0D47	825	8.2	M	1000	51.0	49.5	35.0	47.5	1.0	UL,cUL,ENEC
ME1X825□1K0D52	825	8.2	J,K,M	1000	57.0	50.0	35.0	52.5	1.0	UL,cUL,ENEC
ME1X106□1K0D52A	106	10.0	M	1000	57.0	50.0	35.0	52.5	1.0	UL,cUL,ENEC
ME1X106□1K0D52B	106	10.0	J,K,M	1000	57.0	55.0	45.0	52.5	1.0	UL,cUL,ENEC

Note: 1. □: denotes tolerance code; 2. \*: Contact Meritek for Part Number

# EMI Suppression Capacitors X1 Class 1000VDC

ME1X-1K0D Series

**MERITEK**

## RELIABILTY AND TEST CONDITIONS

Item	Test Condition	Requirement																	
<b>Capacitance</b>	Measuring Frequency: $\pm 2\%$ , Measuring Voltage: $\leq 1V_{rms}$ .	Within the tolerance specified, at $+20\pm 5^{\circ}C$																	
<b>Withstand Voltage - Between Terminals</b>	Apply 4.3 times of rated voltage for 60s	Within specified limits																	
<b>Withstand Voltage - Between Terminals &amp; Enclosure</b>	Apply 2 times of rated voltage $1.5KV_{AC}$ for 2~5s; Min. $2KV_{AC}$	Within specified limits																	
<b>Dissipation Factor</b>	Measuring Frequency: $\pm 2\%$ , Measuring Voltage: $\leq 1V_{rms}$ .	DF: $\leq 0.001(0.1\%)$ at 1KHz																	
<b>Insulation resistance</b>	Measured at 100V, $60\pm 5$ Sec	$C_r \leq 0.33\mu F$ IR $\geq 15,000M\Omega$ $C_r > 0.33\mu F$ IR $\geq 5,000M\Omega \cdot \mu F/C$																	
<b>Solderability</b>	Soldering temperature: $+235\pm 5^{\circ}C$ Immersion duration: $2\pm 0.5$ sec	More than 90% of circumferential surface of lead wire shall be covered with new solder																	
<b>Tensile Terminal Strength</b>	Apply 1.0Kg (10N) for $10\pm 1$ sec to the terminal in the axial direction and acting in a direction away from the body.	Shall be no abnormality																	
<b>Damp Heat</b>	Temperature: $+40^{\circ}C \pm 2^{\circ}C$ , Relative Humidity: 90%~95% Time: 56days; After test, let rest for $1.5\pm 0.5$ hr at ordinary condition before making measurements.	Appearance : No Visible Damage Withstand Voltage: Within specified limits $\Delta C/C: \leq \pm 5\%$ of the value before test DF: $\leq 0.002 (0.2\%)$ Max at 1KHz IR: $\geq 50\%$ of the rated value																	
<b>Dry Heat Resistance</b>	Temperature: $110^{\circ}C \pm 2^{\circ}C$ , Times: 16 +1/-0Hrs																		
<b>Cold Resistance</b>	Temperature: $-40\pm 3^{\circ}C$ , Times: $2\pm 1$ Hrs																		
<b>Temperature Cycle</b>	Test Temperature Cycle: Total 5 cycles. Each cycle includes <table border="1"> <thead> <tr> <th>Cycle</th> <th>Temperature</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td>1</td> <td><math>+20\pm 2^{\circ}C</math></td> <td>3 min</td> </tr> <tr> <td>2</td> <td><math>-40\pm 3^{\circ}C</math></td> <td>30min</td> </tr> <tr> <td>3</td> <td><math>+20\pm 2^{\circ}C</math></td> <td>3 min</td> </tr> <tr> <td>4</td> <td><math>+110\pm 2^{\circ}C</math></td> <td>30min</td> </tr> <tr> <td>5</td> <td><math>+20\pm 2^{\circ}C</math></td> <td>3 min</td> </tr> </tbody> </table> After test, let rest for $1.5\pm 0.5$ hr at ordinary condition before making measurements.		Cycle	Temperature	Time	1	$+20\pm 2^{\circ}C$	3 min	2	$-40\pm 3^{\circ}C$	30min	3	$+20\pm 2^{\circ}C$	3 min	4	$+110\pm 2^{\circ}C$	30min	5	$+20\pm 2^{\circ}C$
Cycle	Temperature	Time																	
1	$+20\pm 2^{\circ}C$	3 min																	
2	$-40\pm 3^{\circ}C$	30min																	
3	$+20\pm 2^{\circ}C$	3 min																	
4	$+110\pm 2^{\circ}C$	30min																	
5	$+20\pm 2^{\circ}C$	3 min																	
<b>Vibration Resistance</b>	Frequency change: 10~55~10Hz Vibration Distance: 1.5mm Test Direction: X, Y, Z Test Duration: 2+1/-0hrs each direction	Appearance : No mechanical Damage Connection: Shall be no short or open																	
<b>Soldering Heat Resistance</b>	Preheat Temperature: $100\sim 120^{\circ}C$ Preheat Duration: 60sec max Temperature increase by $3^{\circ}C/sec$ max Soldering Temperature: $+260\pm 5^{\circ}C$ Immersion Duration: $5\pm 1$ sec Immersion Depth: $4\pm 0.8$ mm from roots After test, allow it stay alone for $1.5\pm 0.5$ hrs at ordinary condition before making measurements	Appearance: No Visible Damage Withstand Voltage: Within specified limits $\Delta C/C: \leq \pm 3\%$ of the value before test DF: $\leq 0.002 (0.2\%)$ Max at 1KHz IR: $\geq 50\%$ of the rated value																	



# EMI Suppression Capacitors X1 Class 1000VDC

ME1X-1K0D Series

**MERITEK**

## RELIABILTY AND TEST CONDITIONS

Item	Test Condition	Requirement
<b>Endurance</b>	Duration: 1,000 hours, Temperature: $+110 \pm 2^{\circ}\text{C}$ Voltage: 1.25 times rated voltage. Once every hour the voltage increased to 1KVrms. For 0.1sec. The test voltage is applied to each capacitor individually through a Resistor of $47\Omega \pm 5\%$ .	Appearance : No Visible Damage $\Delta C/C: \leq \pm 10\%$ of the value before test DF: $\leq 0.008$ Max at 1KHz; for $C_r \leq 1\mu\text{F}$ DF: $\leq 0.005$ Max at 1KHz; for $C_r > 1\mu\text{F}$ IR: $\geq 50\%$ of the rated value
<b>Humidity Resistance</b>	Test Temperature: $-40 \pm 2^{\circ}\text{C}$ Test Humidity: 87% to 93% R.H. Test Voltage: rated voltage Test Duration: 500 hours After test, allow it stay alone for $1.5 \pm 0.5$ hrs at ordinary condition before making measurements	Appearance: No Visible Damage Withstand Voltage: Within specified limits $\Delta C/C: \leq \pm 5\%$ of the value before test DF: $\leq 0.002$ (0.2%) Max at 1KHz IR: $\geq 50\%$ of the rated value

Notes:

1. Ambient Temp:  $15^{\circ}\text{C}$  to  $35^{\circ}\text{C}$ , Relative Humidity (R.H.): 45% to 75%, Air Pressure: 86kpa to 106kpa
2. Operating Temperature:  $-40 \sim 110^{\circ}\text{C}$
3. Storage needs to be kept indoors at  $-10 \sim +40^{\circ}\text{C}$  and relative humidity of under 75% without any sudden temperature changes, direct sunlight and corrosive gas around
4. Do not apply and exceeding vibration, shock (dropping) and pressure

\*Specifications subject to change without notice.