

# EMI Suppression Capacitors X2 Class 1350VDC

MEX 1K3D 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

MEX (1)    223 (2)    K (3)    1K3D (4)    XXXX (5)



No	Item	Digit	Description	Reference
(1)	Meritek Series	MEX	EMI Suppression Capacitors	X2 Safety Cap
(2)	Capacitance	223	223: 22000pF	First two digits: Significant, Third: Multiplier
(3)	Tolerance	K	K: $\pm 10\%$	-10%~+10%
(4)	Rated Voltage	1K3D	1K3D: 1350VDC	800D: 800VDC, 1K0D: 1000VDC, 1K5D: 1500VDC
(5)	Internal Code	xxxx	Pitch or Internal control code	Internal Control or project reference

## SPECIFICATIONS

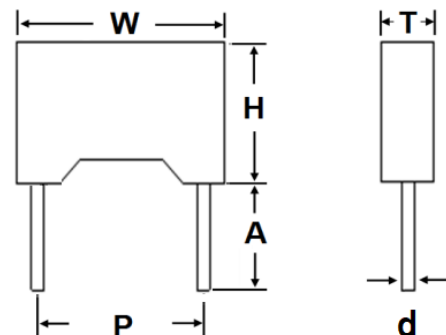
Item	Characteristic	
Operating Temperature Range	-40°C ~ +110°C	
Rated Voltage , Climate Category	1350VDC	40/110/56/B
Capacitance, Tolerance	0.001 $\mu$ F ~ 10.0 $\mu$ F	$\pm 5\%$ (J), $\pm 10\%$ (K), $\pm 20\%$ (M)
Dissipation Factor (tan $\delta$ )	$\leq 0.1\%$	at 1KHz $\pm 2\%$ , $\leq 1.0V_{RMS}$
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	

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 – 1350VDC

Part Number	Cap Code	Cap	Tol	Volt	W	H	T	P	d	Safety
		( $\mu$ F)	(%)	(V <sub>DC</sub> )	(mm)	(mm)	(mm)	(mm)	(mm)	Compliance
MEX102□1K3D75	102	0.0010	J,K,M	1350	10.0	9.0	4.0	7.5	0.6	UL,cUL,ENEC
MEX102□1K3D10	102	0.0010	J,K,M	1350	13.0	11.0	5.0	10.0	0.6	UL,cUL,ENEC
MEX102□1K3D15	102	0.0010	J,K,M	1350	18.0	11.0	5.0	15.0	0.6	UL,cUL,ENEC
MEX152□1K3D75	152	0.0015	J,K,M	1350	10.0	9.0	4.0	7.5	0.6	UL,cUL,ENEC
MEX152□1K3D10	152	0.0015	J,K,M	1350	13.0	11.0	5.0	10.0	0.6	UL,cUL,ENEC
MEX152□1K3D15	152	0.0015	J,K,M	1350	18.0	11.0	5.0	15.0	0.6	UL,cUL,ENEC
MEX222□1K3D75	222	0.0022	J,K,M	1350	10.0	9.0	4.0	7.5	0.6	UL,cUL,ENEC
MEX222□1K3D10	222	0.0022	J,K,M	1350	13.0	11.0	5.0	10.0	0.6	UL,cUL,ENEC
MEX222□1K3D15	222	0.0022	J,K,M	1350	18.0	11.0	5.0	15.0	0.6	UL,cUL,ENEC
MEX272□1K3D75	272	0.0027	J,K,M	1350	10.0	9.0	4.0	7.5	0.6	UL,cUL,ENEC
MEX272□1K3D10	272	0.0027	J,K,M	1350	13.0	11.0	5.0	10.0	0.6	UL,cUL,ENEC
MEX272□1K3D15	272	0.0027	J,K,M	1350	18.0	11.0	5.0	15.0	0.6	UL,cUL,ENEC
MEX332□1K3D75	332	0.0033	J,K,M	1350	10.0	9.0	4.0	7.5	0.6	UL,cUL,ENEC
MEX332□1K3D10	332	0.0033	J,K,M	1350	13.0	11.0	5.0	10.0	0.6	UL,cUL,ENEC
MEX332□1K3D15	332	0.0033	J,K,M	1350	18.0	11.0	5.0	15.0	0.6	UL,cUL,ENEC
MEX392□1K3D75	392	0.0039	J,K,M	1350	10.0	9.0	4.0	7.5	0.6	UL,cUL,ENEC
MEX392□1K3D10	392	0.0039	J,K,M	1350	13.0	11.0	5.0	10.0	0.6	UL,cUL,ENEC
MEX392□1K3D15	392	0.0039	J,K,M	1350	18.0	11.0	5.0	15.0	0.6	UL,cUL,ENEC
MEX472□1K3D75	472	0.0047	J,K,M	1350	10.0	9.0	4.0	7.5	0.6	UL,cUL,ENEC
MEX472□1K3D10	472	0.0047	J,K,M	1350	13.0	11.0	5.0	10.0	0.6	UL,cUL,ENEC
MEX472□1K3D15	472	0.0047	J,K,M	1350	18.0	11.0	5.0	15.0	0.6	UL,cUL,ENEC
MEX562□1K3D75	562	0.0056	J,K,M	1350	10.0	9.0	4.0	7.5	0.6	UL,cUL,ENEC
MEX562□1K3D10	562	0.0056	J,K,M	1350	13.0	11.0	5.0	10.0	0.6	UL,cUL,ENEC
MEX562□1K3D15	562	0.0056	J,K,M	1350	18.0	11.0	5.0	15.0	0.6	UL,cUL,ENEC
MEX682□1K3D75	682	0.0068	J,K,M	1350	10.0	9.0	4.0	7.5	0.6	UL,cUL,ENEC
MEX682□1K3D10	682	0.0068	J,K,M	1350	13.0	11.0	5.0	10.0	0.6	UL,cUL,ENEC
MEX682□1K3D15	682	0.0068	J,K,M	1350	18.0	11.0	5.0	15.0	0.6	UL,cUL,ENEC
MEX822□1K3D75	822	0.0082	J,K,M	1350	10.0	9.0	4.0	7.5	0.6	UL,cUL,ENEC
MEX822□1K3D10	822	0.0082	J,K,M	1350	13.0	11.0	5.0	10.0	0.6	UL,cUL,ENEC
MEX822□1K3D15	822	0.0082	J,K,M	1350	18.0	11.0	5.0	15.0	0.6	UL,cUL,ENEC
MEX103□1K3D75	103	0.010	J,K,M	1350	10.0	9.0	4.0	7.5	0.6	UL,cUL,ENEC
MEX103□1K3D10	103	0.010	J,K,M	1350	13.0	11.0	5.0	10.0	0.6	UL,cUL,ENEC
MEX103□1K3D15	103	0.010	J,K,M	1350	18.0	11.0	5.0	15.0	0.6	UL,cUL,ENEC
MEX123□1K3D75	123	0.012	J,K,M	1350	10.0	9.0	4.0	7.5	0.6	UL,cUL,ENEC
MEX123□1K3D10	123	0.012	J,K,M	1350	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 – 1350VDC

Part Number	Cap Code	Cap	Tol	Volt	W	H	T	P	d	Safety
		(uF)	(%)	(V <sub>DC</sub> )	(mm)	(mm)	(mm)	(mm)	(mm)	Compliance
MEX123□1K3D15	123	0.012	J,K,M	1350	18.0	11.0	5.0	15.0	0.6	UL,cUL,ENEC
MEX153□1K3D75	153	0.015	J,K,M	1350	10.0	9.0	4.0	7.5	0.6	UL,cUL,ENEC
MEX153□1K3D10	153	0.015	J,K,M	1350	13.0	11.0	5.0	10.0	0.6	UL,cUL,ENEC
MEX153□1K3D15	153	0.015	J,K,M	1350	18.0	11.0	5.0	15.0	0.6	UL,cUL,ENEC
MEX183□1K3D75	183	0.018	J,K,M	1350	10.0	9.0	4.0	7.5	0.6	UL,cUL,ENEC
MEX183□1K3D10	183	0.018	J,K,M	1350	13.0	11.0	5.0	10.0	0.6	UL,cUL,ENEC
MEX183□1K3D15	183	0.018	J,K,M	1350	18.0	11.0	5.0	15.0	0.6	UL,cUL,ENEC
MEX223□1K3D75	223	0.022	J,K,M	1350	10.5	11.0	5.0	7.5	0.6	UL,cUL,ENEC
MEX223□1K3D10	223	0.022	J,K,M	1350	13.0	11.0	5.0	10.0	0.6	UL,cUL,ENEC
MEX223□1K3D15	223	0.022	J,K,M	1350	18.0	11.0	5.0	15.0	0.6	UL,cUL,ENEC
MEX273□1K3D75	273	0.027	J,K,M	1350	10.5	11.0	5.0	7.5	0.6	UL,cUL,ENEC
MEX273□1K3D10	273	0.027	J,K,M	1350	13.0	11.0	5.0	10.0	0.6	UL,cUL,ENEC
MEX273□1K3D15	273	0.027	J,K,M	1350	18.0	11.0	5.0	15.0	0.6	UL,cUL,ENEC
MEX333□1K3D75	333	0.033	J,K,M	1350	10.5	11.0	5.0	7.5	0.6	UL,cUL,ENEC
MEX333□1K3D10	333	0.033	J,K,M	1350	13.0	11.0	5.0	10.0	0.6	UL,cUL,ENEC
MEX333□1K3D15	333	0.033	J,K,M	1350	18.0	11.0	5.0	15.0	0.6	UL,cUL,ENEC
MEX393□1K3D10	393	0.039	J,K,M	1350	13.0	11.0	5.0	10.0	0.6	UL,cUL,ENEC
MEX473□1K3D75	473	0.047	J,K,M	1350	10.5	11.0	5.0	7.5	0.6	UL,cUL,ENEC
MEX473□1K3D10	473	0.047	J,K,M	1350	13.0	11.0	5.0	10.0	0.6	UL,cUL,ENEC
MEX473□1K3D15	473	0.047	J,K,M	1350	18.0	11.0	5.0	15.0	0.6	UL,cUL,ENEC
MEX563□1K3D10A	563	0.056	J,K,M	1350	13.0	12.0	6.0	10.0	0.6	UL,cUL,ENEC
MEX563□1K3D10B	563	0.056	J,K,M	1350	13.0	11.0	5.0	10.0	0.6	UL,cUL,ENEC
MEX563□1K3D15	563	0.056	J,K,M	1350	18.0	11.0	5.0	15.0	0.6	UL,cUL,ENEC
MEX683□1K3D75	683	0.068	J,K,M	1350	10.5	12.0	6.0	7.5	0.6	UL,cUL,ENEC
MEX683□1K3D10	683	0.068	J,K,M	1350	13.0	12.0	6.0	10.0	0.6	UL,cUL,ENEC
MEX683□1K3D15	683	0.068	J,K,M	1350	17.0	11.0	5.5	15.0	0.6	UL,cUL,ENEC
MEX823□1K3D10	823	0.082	J,K,M	1350	13.0	12.0	6.0	10.0	0.6	UL,cUL,ENEC
MEX823□1K3D15	823	0.082	J,K,M	1350	17.0	11.0	5.5	15.0	0.6	UL,cUL,ENEC
MEX104□1K3D10A	104	0.10	M	1350	13.0	12.0	6.0	10.0	0.6	UL,cUL,ENEC
MEX104□1K3D10B	104	0.10	J,K,M	1350	13.0	14.0	8.0	10.0	0.6	UL,cUL,ENEC
MEX104□1K3D15	104	0.10	J,K,M	1350	17.0	11.0	5.5	15.0	0.6	UL,cUL,ENEC
MEX104□1K3D22	104	0.10	J,K,M	1350	25.0	14.5	6.0	22.5	0.8	UL,cUL,ENEC
MEX104□1K3D15	104	0.12	J,K,M	1350	18.0	12.0	6.0	15.0	0.6	UL,cUL,ENEC
MEX104□1K3D22	104	0.12	J,K,M	1350	25.0	14.5	6.0	22.5	0.8	UL,cUL,ENEC
MEX154□1K3D10A	154	0.15	M	1350	13.0	12.0	6.0	10.0	0.6	UL,cUL,ENEC

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

# EMI Suppression Capacitors X2 Class 1350VDC

MEX 1K3D Series

**MERITEK**

## ELECTRICAL SPECIFICATION – 1350VDC

Part Number	Cap Code	Cap	Tol	Volt	W	H	T	P	d	Safety
		(uF)	(%)	(V <sub>DC</sub> )	(mm)	(mm)	(mm)	(mm)	(mm)	Compliance
MEX154□1K3D10B	154	0.15	J,K,M	1350	13.0	14.0	8.0	10.0	0.6	UL,cUL,ENEC
MEX154□1K3D15	154	0.15	J,K,M	1350	18.0	13.5	6.0	15.0	0.6	UL,cUL,ENEC
MEX154□1K3D22	154	0.15	J,K,M	1350	25.0	14.5	6.0	22.5	0.8	UL,cUL,ENEC
MEX184□1K3D15	184	0.18	J,K,M	1350	17.0	15.5	7.5	15.0	0.6	UL,cUL,ENEC
MEX184□1K3D22	184	0.18	J,K,M	1350	25.0	14.5	6.0	22.5	0.8	UL,cUL,ENEC
MEX224□1K3D10	224	0.22	J,K,M	1350	13.0	14.0	8.0	10.0	0.6	UL,cUL,ENEC
MEX224□1K3D15A	224	0.22	J,K,M	1350	18.0	13.5	6.0	15.0	0.6	UL,cUL,ENEC
MEX224□1K3D15B	224	0.22	J,K,M	1350	17.0	11.0	5.5	15.0	0.6	UL,cUL,ENEC
MEX224□1K3D15C	224	0.22	J,K,M	1350	17.0	15.5	7.5	15.0	0.6	UL,cUL,ENEC
MEX224□1K3D22	224	0.22	J,K,M	1350	25.0	14.5	6.0	22.5	0.8	UL,cUL,ENEC
MEX224□1K3D22	224	0.22	J,K,M	1350	25.0	17.5	8.0	22.5	0.8	UL,cUL,ENEC
MEX274□1K3D15	274	0.27	J,K,M	1350	17.0	15.5	7.5	15.0	0.6	UL,cUL,ENEC
MEX274□1K3D22	274	0.27	J,K,M	1350	26.5	16.5	7.0	22.5	0.8	UL,cUL,ENEC
MEX334□1K3D15A	334	0.33	J,K,M	1350	18.0	13.5	6.0	15.0	0.6	UL,cUL,ENEC
MEX334□1K3D15B	334	0.33	J,K,M	1350	18.0	14.5	8.5	15.0	0.6	UL,cUL,ENEC
MEX334□1K3D15C	334	0.33	J,K,M	1350	17.0	15.5	7.5	15.0	0.6	UL,cUL,ENEC
MEX334□1K3D15D	334	0.33	J,K,M	1350	17.0	16.5	9.5	15.0	0.6	UL,cUL,ENEC
MEX334□1K3D22	334	0.33	J,K,M	1350	26.5	16.5	7.0	22.5	0.8	UL,cUL,ENEC
MEX334□1K3D27	334	0.33	J,K,M	1350	31.5	16.5	7.5	27.5	0.8	UL,cUL,ENEC
MEX394□1K3D22	394	0.39	J,K,M	1350	26.5	17.0	8.5	22.5	0.8	UL,cUL,ENEC
MEX394□1K3D27	394	0.39	J,K,M	1350	31.5	16.5	7.5	27.5	0.8	UL,cUL,ENEC
MEX474□1K3D15A	474	0.47	J,K,M	1350	17.0	19.0	11.0	15.0	0.6	UL,cUL,ENEC
MEX474□1K3D15B	474	0.47	J,K,M	1350	17.0	15.5	7.5	15.0	0.6	UL,cUL,ENEC
MEX474□1K3D15C	474	0.47	J,K,M	1350	17.0	16.5	9.5	15.0	0.6	UL,cUL,ENEC
MEX474□1K3D22	474	0.47	J,K,M	1350	26.5	16.5	7.0	22.5	0.8	UL,cUL,ENEC
MEX474□1K3D22	474	0.47	J,K,M	1350	26.5	17.0	8.5	22.5	0.8	UL,cUL,ENEC
MEX474□1K3D27	474	0.47	J,K,M	1350	31.5	16.5	7.5	27.5	0.8	UL,cUL,ENEC
MEX524□1K3D22	524	0.52	J,K,M	1350	25.0	19.0	8.5	22.5	0.8	UL,cUL,ENEC
MEX564□1K3D15A	564	0.56	J,K,M	1350	17.0	21.0	12.0	15.0	0.6	UL,cUL,ENEC
MEX564□1K3D15B	564	0.56	J,K,M	1350	17.0	19.0	11.0	15.0	0.6	UL,cUL,ENEC
MEX564□1K3D22A	564	0.56	J,K,M	1350	26.5	17.0	8.5	22.5	0.8	UL,cUL,ENEC
MEX564□1K3D22B	564	0.56	J,K,M	1350	25.0	17.0	8.5	22.5	0.8	UL,cUL,ENEC
MEX564□1K3D22C	564	0.56	J,K,M	1350	25.0	19.0	8.5	22.5	0.8	UL,cUL,ENEC
MEX564□1K3D27	564	0.56	J,K,M	1350	31.5	20.0	11.0	27.5	0.8	UL,cUL,ENEC
MEX604□1K3D27	604	0.60	J,K,M	1350	31.5	20.0	11.0	27.5	0.8	UL,cUL,ENEC

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# EMI Suppression Capacitors X2 Class 1350VDC

MEX 1K3D Series

**MERITEK**

## ELECTRICAL SPECIFICATION – 1350VDC

Part Number	Cap Code	Cap	Tol	Volt	W	H	T	P	d	Safety
		( $\mu$ F)	(%)	(V <sub>DC</sub> )	(mm)	(mm)	(mm)	(mm)	(mm)	Compliance
MEX684□1K3D15A	684	0.68	J,K,M	1350	17.0	21.0	12.0	15.0	0.6	UL,cUL,ENEC
MEX684□1K3D15B	684	0.68	J,K,M	1350	17.0	16.5	9.5	15.0	0.6	UL,cUL,ENEC
MEX684□1K3D15C	684	0.68	J,K,M	1350	17.0	19.0	11.0	15.0	0.6	UL,cUL,ENEC
MEX684□1K3D22A	684	0.68	J,K,M	1350	25.0	17.0	8.5	22.5	0.8	UL,cUL,ENEC
MEX684□1K3D22B	684	0.68	J,K,M	1350	26.5	19.0	10.0	22.5	0.8	UL,cUL,ENEC
MEX684□1K3D27	684	0.68	J,K,M	1350	31.5	20.0	11.0	27.5	0.8	UL,cUL,ENEC
MEX824□1K3D15	824	0.82	J,K,M	1350	17.0	19.0	11.0	15.0	0.6	UL,cUL,ENEC
MEX824□1K3D22	824	0.82	J,K,M	1350	26.0	20.0	11.0	22.5	0.8	UL,cUL,ENEC
MEX824□1K3D27	824	0.82	J,K,M	1350	31.5	20.0	11.0	27.5	0.8	UL,cUL,ENEC
MEX105□1K3D15	105	1.0	J,K,M	1350	17.0	19.0	11.0	15.0	0.6	UL,cUL,ENEC
MEX105□1K3D22A	105	1.0	J,K,M	1350	26.5	19.0	10.0	22.5	0.8	UL,cUL,ENEC
MEX105□1K3D22B	105	1.0	J,K,M	1350	26.0	21.5	12.0	22.5	0.8	UL,cUL,ENEC
MEX105□1K3D27A	105	1.0	J,K,M	1350	30.0	21.0	11.5	27.5	0.8	UL,cUL,ENEC
MEX105□1K3D27B	105	1.0	J,K,M	1350	31.5	22.5	13.0	27.5	0.8	UL,cUL,ENEC
MEX105□1K3D32	105	1.0	J,K,M	1350	37.0	24.0	13.5	32.5	0.8	UL,cUL,ENEC
MEX125□1K3D32	125	1.2	J,K,M	1350	37.0	24.0	13.5	32.5	0.8	UL,cUL,ENEC
MEX125□1K3D27	125	1.2	J,K,M	1350	31.5	22.5	13.0	27.5	0.8	UL,cUL,ENEC
MEX155□1K3D22	155	1.5	J,K,M	1350	25.0	23.5	14.0	22.5	0.8	UL,cUL,ENEC
MEX155□1K3D27A	155	1.5	J,K,M	1350	31.5	22.5	13.0	27.5	0.8	UL,cUL,ENEC
MEX155□1K3D27B	155	1.5	J,K,M	1350	31.5	25.0	14.0	27.5	0.8	UL,cUL,ENEC
MEX155□1K3D32	155	1.5	J,K,M	1350	36.0	24.0	13.5	32.5	0.8	UL,cUL,ENEC
MEX185□1K3D27	185	1.8	J,K,M	1350	31.5	25.0	14.0	27.5	0.8	UL,cUL,ENEC
MEX185□1K3D32	185	1.8	J,K,M	1350	37.0	26.5	16.0	32.5	0.8	UL,cUL,ENEC
MEX185□1K3D37	185	1.8	J,K,M	1350	41.0	26.0	12.0	37.5	1.0	UL,cUL,ENEC
MEX205□1K3D32	205	2.0	J,K,M	1350	37.0	26.5	16.0	32.5	0.8	UL,cUL,ENEC
MEX225□1K3D22	225	2.2	J,K,M	1350	26.0	25.0	15.0	22.5	0.8	UL,cUL,ENEC
MEX225□1K3D27A	225	2.2	J,K,M	1350	31.5	25.0	14.0	27.5	0.8	UL,cUL,ENEC
MEX225□1K3D27B	225	2.2	J,K,M	1350	32.0	28.0	18.0	27.5	0.8	UL,cUL,ENEC
MEX225□1K3D32	225	2.2	J,K,M	1350	37.0	26.5	16.0	32.5	0.8	UL,cUL,ENEC
MEX225□1K3D37A	225	2.2	J,K,M	1350	41.0	26.0	12.0	37.5	1.0	UL,cUL,ENEC
MEX225□1K3D37B	225	2.2	J,K,M	1350	41.0	28.0	14.0	37.5	1.0	UL,cUL,ENEC
MEX275□1K3D27	275	2.7	J,K,M	1350	31.0	31.0	22.0	27.5	0.8	UL,cUL,ENEC
MEX275□1K3D32	275	2.7	J,K,M	1350	37.0	28.5	18.0	32.5	0.8	UL,cUL,ENEC
MEX275□1K3D37	275	2.7	J,K,M	1350	41.0	28.0	14.0	37.5	1.0	UL,cUL,ENEC
MEX335□1K3D27	335	3.3	J,K,M	1350	32.0	28.0	18.0	27.5	0.8	UL,cUL,ENEC

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

# EMI Suppression Capacitors X2 Class 1350VDC

MEX 1K3D Series

**MERITEK**

## ELECTRICAL SPECIFICATION – 1350VDC

Part Number	Cap Code	Cap	Tol	Volt	W	H	T	P	d	Safety
		(uF)	(%)	(V <sub>DC</sub> )	(mm)	(mm)	(mm)	(mm)	(mm)	Compliance
MEX335□1K3D32	335	3.3	J,K,M	1350	35.5	31.0	20.0	32.5	0.8	UL,cUL,ENEC
MEX335□1K3D37	335	3.3	J,K,M	1350	41.0	30.0	16.0	37.5	1.0	UL,cUL,ENEC
MEX335□1K3D47	335	3.3	J,K,M	1350	51.0	27.5	17.5	47.5	1.0	UL,cUL,ENEC
MEX395□1K3D37	395	3.9	J,K,M	1350	41.0	32.0	17.0	37.5	1.0	UL,cUL,ENEC
MEX395□1K3D47	395	3.9	J,K,M	1350	51.0	27.5	17.5	47.5	1.0	UL,cUL,ENEC
MEX445□1K3D27	445	4.4	J,K,M	1350	31.0	31.0	22.0	27.5	0.8	UL,cUL,ENEC
MEX445□1K3D32	445	4.4	J,K,M	1350	37.0	34.0	22.0	32.5	0.8	UL,cUL,ENEC
MEX445□1K3D37	445	4.4	J,K,M	1350	41.0	33.5	19.5	37.5	1.0	UL,cUL,ENEC
MEX445□1K3D47	445	4.4	J,K,M	1350	51.0	30.5	20.0	47.5	1.0	UL,cUL,ENEC
MEX475□1K3D27	475	4.7	J,K,M	1350	31.0	31.0	22.0	27.5	0.8	UL,cUL,ENEC
MEX475□1K3D32	475	4.7	J,K,M	1350	37.0	34.0	22.0	32.5	0.8	UL,cUL,ENEC
MEX475□1K3D37	475	4.7	J,K,M	1350	41.0	33.5	19.5	37.5	1.0	UL,cUL,ENEC
MEX475□1K3D47	475	4.7	J,K,M	1350	51.0	30.5	20.0	47.5	1.0	UL,cUL,ENEC
MEX565□1K3D27	565	5.6	J,K,M	1350	31.0	31.0	22.0	27.5	0.8	UL,cUL,ENEC
MEX565□1K3D37	565	5.6	J,K,M	1350	41.0	37.0	22.0	37.5	1.0	UL,cUL,ENEC
MEX565□1K3D47	565	5.6	J,K,M	1350	51.0	34.0	22.0	47.5	1.0	UL,cUL,ENEC
MEX685□1K3D37	685	6.8	J,K,M	1350	41.0	37.0	22.0	37.5	1.0	UL,cUL,ENEC
MEX685□1K3D47	685	6.8	J,K,M	1350	51.0	34.0	22.0	47.5	1.0	UL,cUL,ENEC
MEX825□1K3D37	825	8.2	J,K,M	1350	41.5	41.0	27.5	37.5	1.0	UL,cUL,ENEC
MEX825□1K3D47	825	8.2	J,K,M	1350	51.0	43.5	29.0	47.5	1.0	UL,cUL,ENEC
MEX106□1K3D37	106	10.0	J,K,M	1350	41.0	43.0	28.0	37.5	1.0	UL,cUL,ENEC
MEX106□1K3D47A	106	10.0	J,K,M	1350	51.0	49.5	35.0	47.5	1.0	UL,cUL,ENEC
MEX106□1K3D47B	106	10.0	M	1350	51.0	43.5	29.0	47.5	1.0	UL,cUL,ENEC

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

# EMI Suppression Capacitors X2 Class 1350VDC

MEX 1K3D Series

**MERITEK**

## RELIABILTY AND TEST CONDITIONS

Item	Test Condition	Requirement																	
Capacitance	Measuring Frequency: $\pm 2\%$ ; Measuring Voltage: $\leq 1V_{rms}$ .	Within the tolerance specified, at $+20\pm 5^{\circ}C$																	
Withstand Voltage - Between Terminals	Apply 4.3 times of rated voltage for 60s	Within specified limits																	
Withstand Voltage - Between Terminals & Enclosure	Apply 2 times of rated voltage 1.5KV <sub>AC</sub> for 2~5s; Min. 2KV <sub>AC</sub>	Within specified limits																	
Dissipation Factor	Measuring Frequency: $\pm 2\%$ Measuring Voltage: $\leq 1V_{rms}$ .	D.F. : $\leq 0.001(0.1\%)$ at 1KHz																	
Insulation resistance	Measured at 100V, 60 $\pm 5$ Sec	Cr $\leq 0.33\mu F$ IR $\geq 15,000M\Omega$ Cr $> 0.33\mu F$ IR $\geq 5,000M\Omega \cdot \mu F/C$																	
Solderability	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																	
Tensile Terminal Strength	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																	
Damp Heat	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																	
Dry Heat Resistance	Temperature: $110^{\circ}C \pm 2^{\circ}C$ , Times: 16 +1/-0Hrs																		
Cold Resistance	Temperature: $-40\pm 3^{\circ}C$ , Times: 2 $\pm 1$ Hrs																		
Temperature Cycle	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																	
Vibration Resistance	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																	
Soldering Heat Resistance	Preheat Temperature: 100~120 $^{\circ}C$ 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 X2 Class 1350VDC

MEX 1K3D Series

**MERITEK**

## RELIABILTY AND TEST CONDITIONS

Item	Test Condition	Requirement
<b>Endurance</b>	Duration: 1,000 hours, Temperature: +110± 2°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 47Ω±5%.	Appearance : No Visible Damage ΔC/C: ≤ ±10% of the value before test DF: ≤ 0.008 Max at 1KHz; for Cr≤1μF DF: ≤ 0.005 Max at 1KHz; for Cr>1μF IR: ≥ 50% of the rated value
<b>Humidity Resistance</b>	Test Temperature: -40±2°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±0.5hrs at ordinary condition before making measurements	Appearance: No Visible Damage Withstand Voltage: Within specified limits ΔC/C: ≤ ±5% of the value before test DF: ≤ 0.002 (0.2%) Max at 1KHz IR: ≥ 50% of the rated value

Notes:

1. Ambient Temp: 15°C to 35°C, Relative Humidity (R.H.): 45% to 75%, Air Pressure: 86kpa to 106kpa
2. Operating Temperature: -40~110°C
3. Storage needs to be kept indoors at -10~+40°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.