

KVX SERIES MICA PAPER CAPACITORS

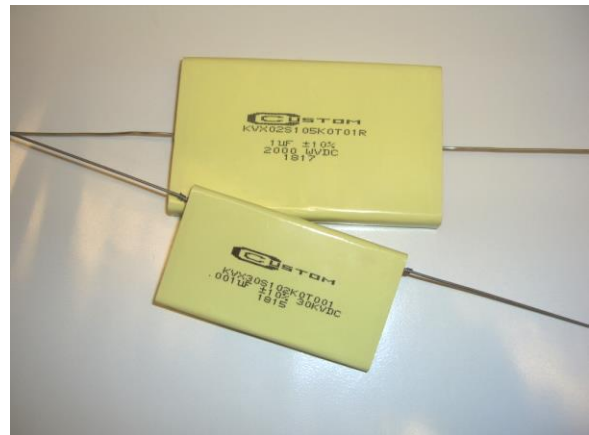
**WRAP & FILL STYLE MICA PAPER CAPACITORS FOR USE
IN COMMERCIAL, INDUSTRIAL & MILITARY APPLICATIONS**

- ◆ Voltage Ratings to 30kVdc
- ◆ Capacitance Values to 10.0uF
- ◆ High Reliability
- ◆ Corona Resistant
- ◆ Exceptional Thermal Stability
- ◆ Temperature range of -65°C to 125°C
- ◆ Wrap & Fill Package

Do you need the most reliable high voltage capacitor available?

Since 1964 Custom Electronics has successfully designed and manufactured the highest quality "custom" reconstituted mica paper capacitors available. Mica is the proven reliable dielectric for high voltage and temperature stress applications, even with continuous corona and radiation. Our capacitors (>15,000 designs) are used in many of the most demanding applications imaginable. Historically, every one of our capacitor designs was tailor-made to meet a specific customer's needs. The **KVX SERIES** offers a standardized set of capacitors for you to choose from.

This series of high voltage capacitors has been designed around the same materials, processes and quality standards that have made our name synonymous with the terms quality, reliability and high-performance. Each capacitor section is constructed using a minimum of two layers of the finest capacitor grade mica paper.



Of course if you don't see the value and size that you require, we still offer our "Custom" design services that CEI is well known for.

The KVX SERIES is an excellent choice for any HV application requiring rock solid reliability at an affordable price.



CUSTOM ELECTRONICS, INC.

87 Browne Street, Oneonta NY 13820
Phone: 1-607-432-3880 or 1-877-RELY-CEI
<http://www.customelec.com>



SPECIFICATIONS

KVX SERIES

QUALITY

Every product manufactured by Custom Electronics passes through one of the toughest QC systems in the industry. Because product quality and reliability is of the highest importance, we have ensured that our engineering and manufacturing procedures conform to the following Commercial and Military specifications:

- AS9100 / ISO9001 Certification
- J-STD-001
- IPC-A-610
- ANSI/ESD S20.20

CONSTRUCTION

Reconstituted Mica Paper with Buried Foil

CASE

Polyester Tape with Epoxy End-Fill

LEADS

Typical - 0.040" Diameter Solid Copper Wire.
Insulated wire or Tab terminations also available.

MARKING

Capacitors are marked with the Company Logo, Part Number, Capacitance, Rated Voltage, Tolerance and Date Code (YYWW).

ENVIRONMENTAL TESTING

These products comply with MIL-STD-202

TEST	METHOD	CONDITION
Vibration	204	D
Shock	213	I
Humidity	103	B
Thermal Shock	107	B

ELECTRICAL TESTING

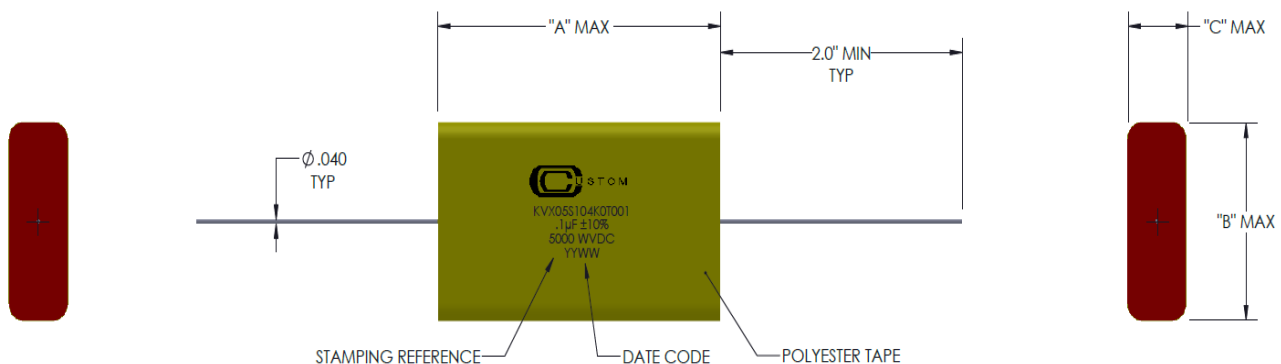
All Capacitors are 100% Tested for the Following:

- ◆ Capacitance (25°C, 1kHz)
- ◆ Dissipation Factor (25°C, 1kHz)
- ◆ Dielectric Withstand Voltage 25°C

Capacitors are Sample Tested for the Following:

- ◆ Insulation Resistance (25°C)
- ◆ ESR (25°C)

PACKAGE DETAILS



- Wire lead locations vary based on voltage ratings.
- Package dimensions are provided in Product Guide Table



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PRODUCT GUIDE

PART NUMBER	RoHS (SUFFIX)	Cap. (µF)	Toler. (%)	WVDC (V)	DWV Test (VDC)	Package Dimensions		
						A (Max) (Inches)	B (Max) (Inches)	C (Max) (Inches)
KVX01S473K0T001	T01R	0.047	10	1000	2000	1.81	1.02	0.14
KVX01S104K0T001	T01R	0.1	10	1000	2000	1.81	1.47	0.17
KVX01S224K0T001	T01R	0.22	10	1000	2000	2.06	1.74	0.24
KVX01S474K0T001	T01R	0.47	10	1000	2000	3.06	1.98	0.24
KVX01S684K0T001	T01R	0.68	10	1000	2000	3.56	2.04	0.27
KVX01S105K0T001	T01R	1.0	10	1000	2000	3.81	2.19	0.35
KVX01S225K0T001	T01R	2.2	10	1000	2000	4.56	3.04	0.41
KVX01S335K0T001	T01R	3.3	10	1000	2000	4.56	3.29	0.55
KVX01S475K0T001	T01R	4.7	10	1000	2000	4.56	3.09	0.84
KVX01S685K0T001	T01R	6.8	10	1000	2000	3.06	3.07	1.93
KVX02S333K0T001	T01R	0.033	10	2000	4000	1.56	1.07	0.18
KVX02S684K0T001	T01R	0.68	10	2000	4000	3.56	1.96	0.40
KVX02S105K0T001	T01R	1.0	10	2000	4000	3.81	2.41	0.47
KVX02S335K0T001	T01R	3.3	10	2000	4000	4.56	2.79	0.91
KVX02S475K0T001	T01R	4.7	10	2000	4000	3.56	2.37	2.06
KVX03S103K0T001	T01R	0.01	10	3000	6000	1.31	1.10	0.19
KVX03S223K0T001	T01R	0.022	10	3000	6000	1.56	1.24	0.20
KVX03S474K0T001	T01R	0.47	10	3000	6000	3.56	2.41	0.50
KVX03S105K0T001	T01R	1.0	10	3000	6000	3.56	2.08	1.15
KVX03S335K0T001	T01R	3.3	10	3000	6000	3.81	2.80	2.25
KVX04S682K0T001	T01R	0.0068	10	4000	8000	1.56	1.32	0.15
KVX04S103K0T001	T01R	0.01	10	4000	8000	1.81	1.32	0.15
KVX04S104K0T001	T01R	0.1	10	4000	8000	3.06	2.00	0.26
KVX04S224K0T001	T01R	0.22	10	4000	8000	4.06	2.47	0.30
KVX04S105K0T001	T01R	1.0	10	4000	8000	3.81	2.85	1.04
KVX04S225K0T001	T01R	2.2	10	4000	8000	3.81	2.81	2.32
KVX05S472K0T001	T01R	0.0047	10	5000	10,000	1.81	1.24	0.14
KVX05S103K0T001	T01R	0.01	10	5000	10,000	2.06	1.26	0.17
KVX05S683K0T001	T01R	0.063	10	5000	10,000	3.56	1.82	0.25
KVX05S104K0T001	T01R	0.1	10	5000	10,000	2.06	1.78	0.65
KVX05S105K0T001	T01R	1.0	10	5000	10,000	4.56	2.84	1.27
KVX06S103K0T001	T01R	0.01	10	6000	12,000	2.06	1.30	0.19
KVX06S223K0T001	T01R	0.022	10	6000	12,000	2.06	1.60	0.25
KVX06S104K0T001	T01R	0.1	10	6000	12,000	3.06	2.22	0.38
KVX06S105K0T001	T01R	1.0	10	6000	12,000	4.56	2.94	1.57
KVX08S332K0T001	T01R	0.0033	10	8000	16000	2.06	1.54	0.16
KVX08S103K0T001	T01R	0.01	10	8000	16000	3.06	1.50	0.20
KVX08S223K0T001	T01R	0.022	10	8000	16000	3.06	2.08	0.23
KVX08S104K0T001	T01R	0.1	10	8000	16000	3.06	2.14	0.76
KVX08S684K0T001	T01R	0.050	10	8000	16000	4.56	2.97	1.94

NOTES:

1. When ordering RoHS compliant product, change p/n suffix from T001 to T01R.
2. Custom designs available if you can't find a part number that suits your needs exactly.
3. Additional Capacitance tolerance options available depending on Cap value.



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PART NUMBER	RoHS	Cap. (μF)	Toler. (%)	WVDC (V)	DIELECTRIC WITHSTAND (V)	Package Dimensions		
						A (Max) (Inches)	B (Max) (Inches)	C (Max) (Inches)
KVX10S102K0T001	T01R	0.001	10	10000	15000	1.81	1.48	0.13
KVX10S222K0T001	T01R	0.0022	10	10000	15000	2.81	1.46	0.13
KVX10S103K0T001	T01R	0.01	10	10000	15000	3.56	1.69	0.19
KVX10S473K0T001	T01R	0.047	10	10000	15000	4.56	2.84	0.28
KVX10S334K0T001	T01R	0.33	10	10000	15000	4.56	2.88	1.64
KVX12S103K0T001	T01R	0.01	10	12000	18000	4.06	1.89	0.20
KVX12S333K0T001	T01R	0.033	10	12000	18000	4.56	2.82	0.37
KVX12S334K0T001	T01R	0.33	10	12000	18000	4.56	3.63	1.93
KVX15S471K0T001	T01R	0.00047	10	15000	21000	2.06	1.81	0.14
KVX15S681K0T001	T01R	0.00068	10	15000	21000	2.06	1.25	0.17
KVX15S102K0T001	T01R	0.001	10	15000	21000	3.06	1.64	0.15
KVX15S103K0T001	T01R	0.01	10	15000	21000	4.31	2.10	0.26
KVX15S224K0T001	T01R	0.22	10	15000	21000	4.56	3.76	2.15
KVX20S331K0T001	T01R	0.00033	10	20000	28000	1.81	1.30	0.25
KVX20S102K0T001	T01R	0.001	10	20000	28000	3.06	1.66	0.19
KVX20S103K0T001	T01R	0.01	10	20000	28000	3.81	2.24	0.42
KVX20S473K0T001	T01R	0.047	10	20000	28000	4.31	2.86	1.02
KVX25S101K0T001	T01R	0.0001	10	25000	32500	2.06	1.16	0.28
KVX25S221K0T001	T01R	0.00022	10	25000	32500	2.06	1.23	0.25
KVX25S471K0T001	T01R	0.00047	10	25000	32500	3.06	1.24	0.27
KVX25S102K0T001	T01R	0.001	10	25000	32500	3.06	2.29	0.20
KVX25S222K0T001	T01R	0.0022	10	25000	32500	3.06	1.59	0.45
KVX25S332K0T001	T01R	0.0033	10	25000	32500	3.06	2.02	0.49
KVX25S472K0T001	T01R	0.0047	10	25000	32500	3.06	2.45	0.53
KVX25S103K0T001	T01R	0.01	10	25000	32500	4.06	2.35	0.55
KVX25S333K0T001	T01R	0.033	10	25000	32500	4.56	2.49	1.29
KVX30S101K0T001	T01R	0.0001	10	30000	39000	2.06	1.58	0.22
KVX30S102K0T001	T01R	0.001	10	30000	39000	3.06	1.70	0.30
KVX30S103K0T001	T01R	0.01	10	30000	39000	4.81	2.78	0.55
KVX30S223K0T001	T01R	0.022	10	30000	39000	4.81	2.89	1.11

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CHARACTERISTICS

RATINGS

OPERATING TEMPERATURE RANGE

-65°C to +125°C

INSULATION RESISTANCE

Minimum of 5,000 MΩ x μF or 100,000 MΩ (whichever is less) @ +25°C.

Minimum of 25 MΩ x μF or 1000 MΩ (whichever is less) @ +125°C.

DIELECTRIC WITHSTANDING VOLTAGE

150% of WVDC, T=+25°C

DISSIPATION FACTOR

Maximum of 0.4% @ -65°C, f=1kHz

Maximum of 0.5% @ +25°C, f=1kHz

Maximum of 1.0% @ +125°C, f=1kHz

THERMAL CAPACITANCE CHANGE

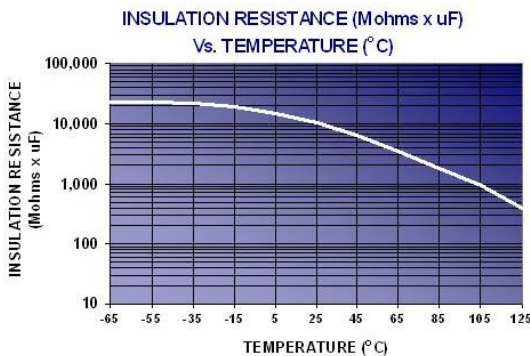
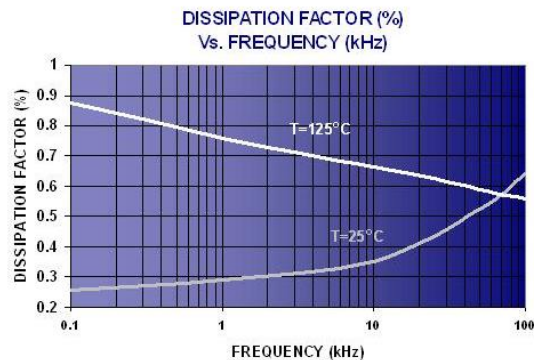
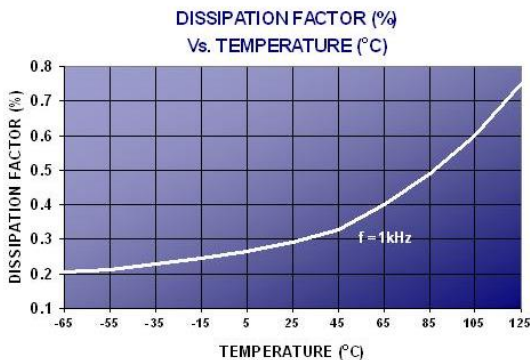
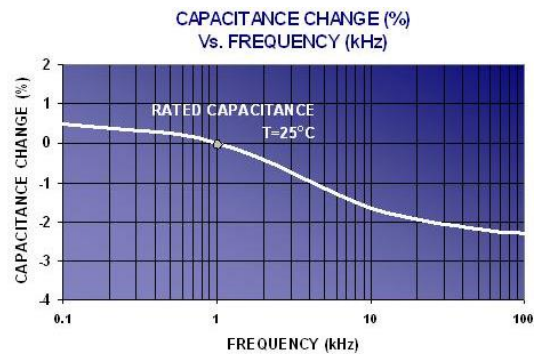
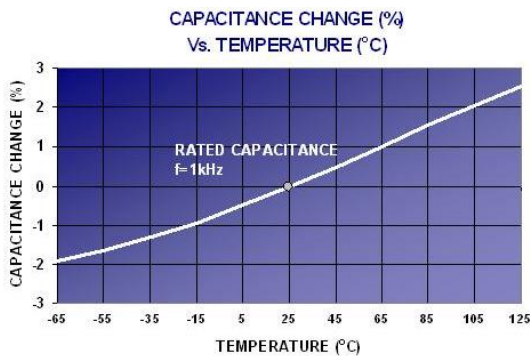
Maximum of -3.0% @ -65°C, f=1kHz

Maximum of +5.0% @ +125°C, f=1kHz

CAPACITANCE TOLERANCE

Tolerance of +/-10%, T=+25°C, f=1kHz

TYPICAL PERFORMANCE CURVES



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