

Metallized Polyester Film Capacitors

Related Document: IEC 60384-2, CECC 30 400

MAIN APPLICATIONS:

High voltage circuits for professional measuring and test equipment.

MARKING:

Manufacturer's logo, type, C-value, rated voltage, tolerance, date code of manufacture

DIELECTRIC:

Polyester film

ELECTRODES:

Vacuum deposited aluminum

COATING:

Plastic wrapped, epoxy resin sealed

CONSTRUCTION:

Extended metallized film, internal series connection (refer to general information)

LEADS:

Tinned Wire

IEC TEST CLASSIFICATION:

40/85/21 acc. to IEC 60068

OPERATING TEMPERATURE RANGE:

- 40°C to + 85°C

CAPACITANCE RANGE:

1000pF to 0.01μF

CAPACITANCE TOLERANCE:

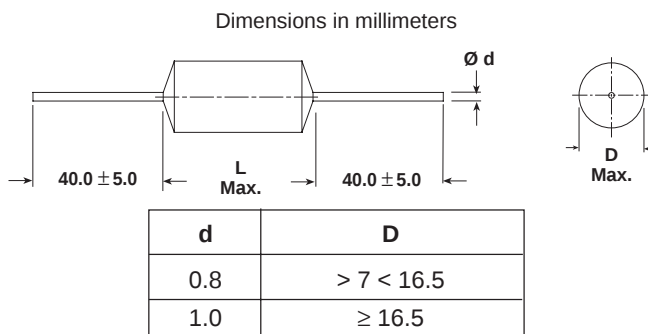
20% (M), 10% (K)

RATED VOLTAGES (U_R):

8 kVDC, 10 kVDC, 12 kVDC

PERMISSIBLE AC VOLTAGES (RMS) UP TO 60HZ:

450 VAC


TEST VOLTAGE (ELECTRODE/ELECTRODE):

1.5 x U_R for 2 s

INSULATION RESISTANCE:

Measured at 1000V_{DC} after one minute
>100,000 MΩ

CAPACITANCE DRIFT:

Up to 40°C, ± 1.5% for a period of two years

DERATING FOR DC AND AC CATEGORY VOLTAGE U_C :

At 70°C: $U_C = 1.0 \times U_R$

At 85°C: $U_C = 0.7 \times U_R$

SELF INDUCTANCE:

Approx. 15nH measured at 6mm long leads

PULL TEST ON LEADS:

≥ 20 N in direction of leads according to IEC 60068-2-21

BEND TEST ON LEADS:

Two bends through 90°C with half the force used in pull test

For further details, please refer to general information provided in this catalog.

MAXIMUM PULSE RISE TIME (dv/dt)

CAPACITOR LENGTH (mm)	MAX. PULSE RISE TIME d_v/d_t [V/μs]		
	8 kVDC	10 kVDC	12 kVDC
42	400	550	700

If the maximum pulse voltage is less than the rated voltage higher dv/dt values can be permitted.

DISSIPATION FACTOR TAN δ

MEASURED AT	$C \leq 0.1\mu F$
10kHz	15×10^{-3}

CAPACITANCE	CAPACITANCE CODE	VOLTAGE CODE 80 8 kVDC/ 450 VAC		VOLTAGE CODE 11 10 kVDC/ 450 VAC		VOLTAGE CODE 21 12 kVDC/ 450 VAC	
		D	L	D	L	D	L
680pF	- 168	—	—	—	—	—	—
1000pF	- 210	—	—	—	—	9.0	42.0
1500pF	- 215	8.5	42.0	8.5	42.0	10.5	42.0
2500pF	- 225	10.0	42.0	10.5	42.0	12.5	42.0
5000pF	- 250	13.0	42.0	13.5	42.0	16.5	42.0
10,000pF	- 310	17.5	42.0	—	—	—	—

Further C-values upon request.

PCM = L + 3.5

NOTE: In critical applications it is recommended to protect the high voltage capacitor MKT 1816 in your assembly additionally against moisture.

RECOMMENDED PACKAGING

LETTER CODE	TYPE OF PACKAGING	REEL DIAMETER (mm)	ORDERING CODE EXAMPLE
—	BULK	—	MKT 1816-215-116