

**Metallized Polycarbonate Film Capacitor**  
**Related Document: IEC 60 384-6**

**MAIN APPLICATIONS:**

High frequency coupling and decoupling for fast digital and analog IC's; filter, timing and integrating circuits.

**MARKING:**

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

**DIELECTRIC:**

Polycarbonate film

**ELECTRODES:**

Vacuum deposited aluminum

**COATING:**

Flame retardant plastic case (UL-class 94 V-0) red, epoxy resin sealed

**CONSTRUCTION:**

Extended metallized film (refer to general information)

**LEADS:**

Tinned wire

**IEC TEST CLASSIFICATION:**

55/100/21, according to IEC 60068

**OPERATING TEMPERATURE RANGE:**

- 55°C to + 100°C

**CAPACITANCE RANGE:**

0.01µF to 0.33µF

**CAPACITANCE TOLERANCES:**

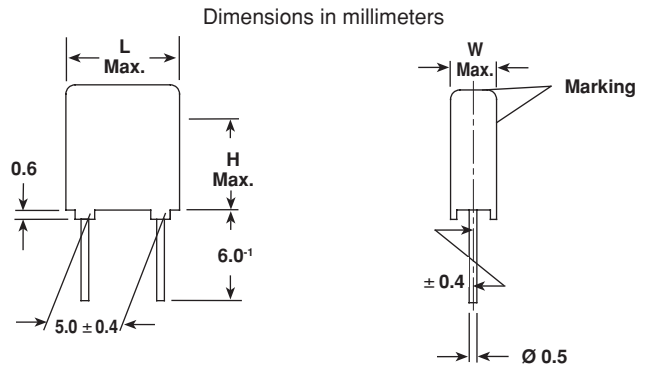
± 20% (M), ± 10% (K), ± 5% (J)

**RATED VOLTAGES (U<sub>R</sub>):**

63 VDC, 100 VDC

**PERMISSIBLE AC VOLTAGES (RMS) UP TO 60Hz:**

40 VAC, 63 VAC



**TEST VOLTAGE (ELECTRODE/ELECTRODE):**  
 1.6 x U<sub>R</sub> for 2 s

**INSULATION RESISTANCE:**

Measured at 100 VDC (63 VDC series measured at 50 VDC) after one minute  
 3750 MΩ minimum value (50,000 MΩ typical value)

**CAPACITANCE DRIFT:**

Up to + 40°C, ± 1% for a period of two years

**DERATING FOR DC AND AC.CATEGORY VOLTAGE U<sub>C</sub>:**

At + 85°C: U<sub>C</sub> = 1.0 U<sub>R</sub>  
 At + 100°C: U<sub>C</sub> = 0.8 U<sub>R</sub>

**SELF INDUCTANCE:**

~ 6 nH measured with 2mm long leads

**PULL TEST ON LEADS:**

≥ 30 N in direction of leads according to IEC 60068-2-21

**RELIABILITY:**

Operational life > 300,000 h  
 Failure rate < 1 FIT (40°C and 0.5 x U<sub>R</sub>)

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

**MAXIMUM PULSE RISE TIME**

PCM (mm)	Maximum pulse rise time d <sub>v</sub> /d <sub>t</sub> [V/µs]	
	63 VDC	100 VDC
5	17	24

If the maximum pulse voltage is less than the rated voltage higher d<sub>v</sub>/d<sub>t</sub> values can be permitted.

**DISSIPATION FACTOR TAN δ**

MEASURED AT	C ≤ 0.1µF	0.1µF < C ≤ 1.0µF
1kHz	3 x 10 <sup>-3</sup>	3 x 10 <sup>-3</sup>
10kHz	4 x 10 <sup>-3</sup>	4 x 10 <sup>-3</sup>
100kHz	10 x 10 <sup>-3</sup>	—
Maximum values		

\*Please note: these capacitors are not recommended for new designs.

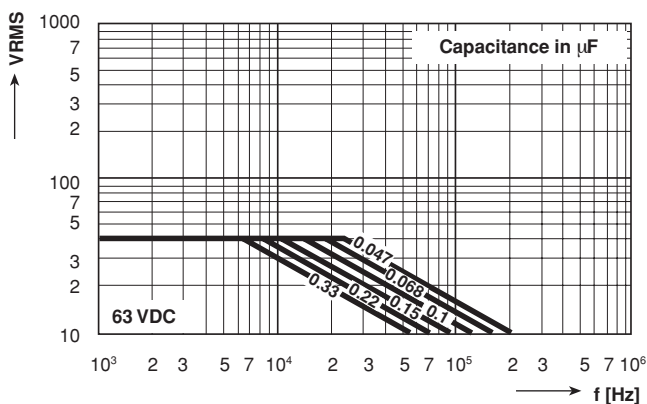
CAPACITANCE	CAPACITANCE CODE	VOLTAGE CODE 06 63 VDC/ 40 VAC			VOLTAGE CODE 01 100 VDC/ 63 VAC		
		W	H	L	W	H	L
0.01 $\mu\text{F}$	- 310	—	—	—	2.5	6.0	7.5
0.015 $\mu\text{F}$	- 315	—	—	—	2.5	6.0	7.5
0.022 $\mu\text{F}$	- 322	—	—	—	2.5	6.0	7.5
0.033 $\mu\text{F}$	- 333	—	—	—	2.5	6.0	7.5
0.047 $\mu\text{F}$	- 347	2.5	6.0	7.5	—	—	—
0.068 $\mu\text{F}$	- 368	2.5	6.0	7.5	—	—	—
0.10 $\mu\text{F}$	- 410	3.5	8.5	7.5	—	—	—
0.15 $\mu\text{F}$	- 415	3.5	8.5	7.5	—	—	—
0.22 $\mu\text{F}$	- 422	4.5	9.5	7.5	—	—	—
0.33 $\mu\text{F}$	- 433	5.0	10.0	7.5	—	—	—

Further C-values upon request

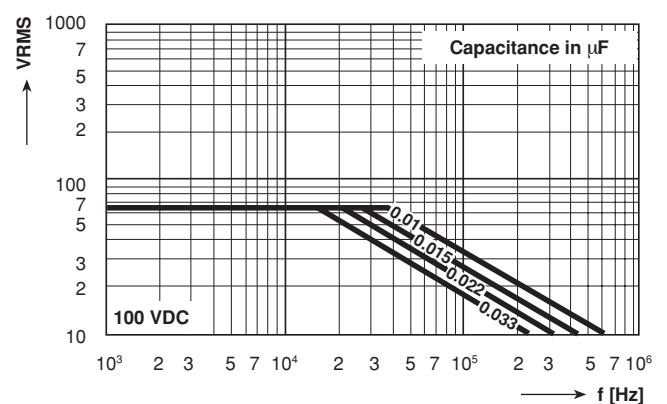
**RECOMMENDED PACKAGING**

LETTER CODE	TYPE OF PACKAGING	HEIGHT (H) (mm)	REEL DIAMETER (mm)	ORDERING CODE EXAMPLE	PCM 5
D	AMMO	16.5	S*	MKC 1858-433-065-D	X
G	AMMO	18.5	S*	MKC 1858-433-065-G	X
F	REEL	16.5	350	MKC 1858-433-065-F	X
W	REEL	18.5	350	MKC 1858-433-065-W	X
—	BULK	—	—	MKC 1858-433-065	X

\*S = box size 55 x 210 x 340mm (W x H x L)



Permissible AC Voltage versus Frequency



Permissible AC Voltage versus Frequency

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