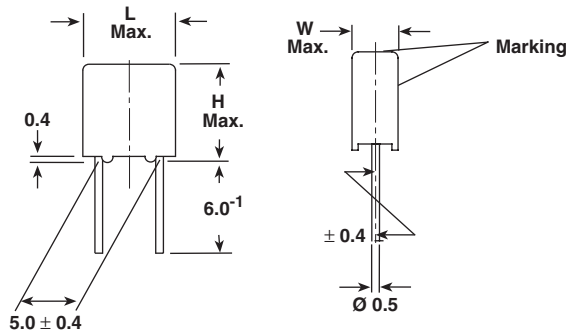


Polycarbonate Film Capacitor

Related Document: IEC 60384-12

Dimensions in millimeters


MAIN APPLICATIONS

Oscillator, timing and LC/RC filter circuits, high frequency coupling and decoupling of fast digital and analog IC's.

MARKING

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

DIELECTRIC

Polycarbonate film

ELECTRODES

Metal foil

COATING

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

CONSTRUCTION

Extended foil (refer to general information)

LEADS

Tinned wire

IEC TEST CLASSIFICATION

55/100/56, according to IEC 60068

DISSIPATION FACTOR TAN δ

MEASURED AT	$C \leq 0.1\mu\text{F}$
1kHz	2×10^{-3}
10kHz	4×10^{-3}
100kHz	8×10^{-3}
	Maximum values

OPERATING TEMPERATURE RANGE

- 55°C to + 100°C


CAPACITANCE RANGE

220pF to 10,000pF

CAPACITANCE TOLERANCES
 $\pm 20\%$ (M), $\pm 10\%$ (K), $\pm 5\%$ (J)

RATED VOLTAGES (U_R)

63 VDC, 100 VDC, 160 VDC

PERMISSIBLE AC VOLTAGES (RMS) UP TO 60HZ

40 VAC, 63 VAC, 100 VAC

TEST VOLTAGE (ELECTRODE/ELECTRODE)
 $2 \times U_R$ for 2 s

PULSE RISE TIME
 $d_v/d_t = 1000 \text{ V}/\mu\text{s}$
INSULATION RESISTANCE

Measured at 100 VDC (63 VDC series measured at 50 VDC) after one minute

500,000 MΩ minimum value (1000 GΩ typical value)

CAPACITANCE DRIFT

 Up to + 40°C, $\pm 0.5\%$ for a period of two years

DERATING FOR DC AND AC. CATEGORY VOLTAGE U_C

 At + 85°C: $U_C = 1.0 U_R$

 At + 100°C: $U_C = 0.8 U_R$
SELF INDUCTANCE

~ 6 nH measured with 2mm long leads

PULL TEST ON LEADS
 $\geq 30 \text{ N}$ in direction of leads according to IEC 60068-2-21

RELIABILITY

Operational life > 300,000 h

 Failure rate < 1 FIT (40°C and $0.5 \times U_R$)

 For further details, please refer to the general information available at www.vishay.com/doc?26033.



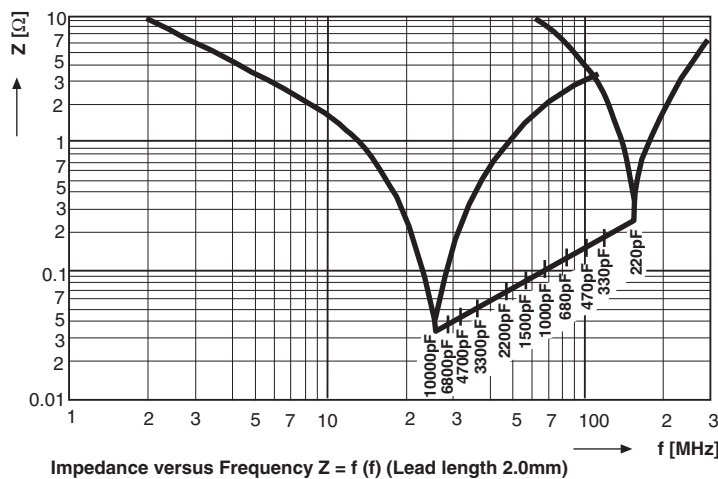
CAPACITANCE	CAPACITANCE CODE	VOLTAGE CODE 06 63 VDC/40 VAC			VOLTAGE CODE 01 100 VDC/63 VAC			VOLTAGE CODE 16 160 VDC/100 VAC		
		W	H	L	W	H	L	W	H	L
220pF	- 122	—	—	—	—	—	—	2.5	6.5	7.2
330pF	- 133	—	—	—	—	—	—	2.5	6.5	7.2
470pF	- 147	—	—	—	—	—	—	2.5	6.5	7.2
680pF	- 168	—	—	—	—	—	—	2.5	6.5	7.2
1000pF	- 210	—	—	—	—	—	—	2.5	6.5	7.2
1500pF	- 215	—	—	—	2.5	6.5	7.2	3.5	8.5	7.2
2200pF	- 222	—	—	—	2.5	6.5	7.2	3.5	8.5	7.2
3300pF	- 233	2.5	6.5	7.2	—	—	—	—	—	—
4700pF	- 247	2.5	6.5	7.2	—	—	—	—	—	—
6800pF	- 268	3.0	7.5	7.2	—	—	—	—	—	—
0.01μF	- 310	3.5	8.5	7.2	—	—	—	—	—	—

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*	KC 1850-210/165-D	X
G	AMMO	18.5	S*	KC 1850-210/165-G	X
F	REEL	16.5	350	KC 1850-210/165-F	X
W	REEL	18.5	350	KC 1850-210/165-W	X
—	BULK	—	—	KC 1850-210/165	X

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





Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Vishay makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Vishay disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Vishay's knowledge of typical requirements that are often placed on Vishay products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and/or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. Product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein.

Except as expressly indicated in writing, Vishay products are not designed for use in medical, life-saving, or life-sustaining applications or for any other application in which the failure of the Vishay product could result in personal injury or death. Customers using or selling Vishay products not expressly indicated for use in such applications do so at their own risk and agree to fully indemnify and hold Vishay and its distributors harmless from and against any and all claims, liabilities, expenses and damages arising or resulting in connection with such use or sale, including attorneys fees, even if such claim alleges that Vishay or its distributor was negligent regarding the design or manufacture of the part. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay. Product names and markings noted herein may be trademarks of their respective owners.

Material Category Policy

Vishay Intertechnology, Inc. hereby certifies that all its products that are identified as RoHS-Compliant fulfill the definitions and restrictions defined under Directive 2011/65/EU of The European Parliament and of the Council of June 8, 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (EEE) - recast, unless otherwise specified as non-compliant.

Please note that some Vishay documentation may still make reference to RoHS Directive 2002/95/EC. We confirm that all the products identified as being compliant to Directive 2002/95/EC conform to Directive 2011/65/EU.