



Polycarbonate Film Capacitor Related Document: IEC 60 384-12

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

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 (UD):

63 VDC, 100 VDC, 160 VDC

PERMISSIBLE AC VOLTAGES (RMS) UP TO 60Hz:

40 VAC, 63 VAC, 100 VAC

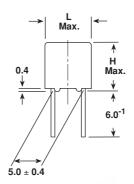
TEST VOLTAGE (ELECTRODE/ELECTRODE):

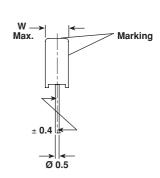
 $2 \times U_R$ for $2 \times$

PULSE RISE TIME:

 $d_v/d_t = 1000 \text{ V/}\mu\text{s}$

Dimensions in millimeters





INSULATION RESISTANCE:

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

500,000 M Ω minimum value (1000 G Ω typical value)

CAPACITANCE DRIFT:

Up to $\pm 40^{\circ}$ 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:

≥ 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_B)

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

DISSIPATION FACTOR TAN δ

MEASURED AT	C ≤ 0.1μF
1kHz	2 x 10 ⁻³
10kHz	4 x 10 ⁻³
100kHz	8 x 10 ⁻³
	Maximum values

^{*}Please note: these capacitors are not recommended for new designs.

KC 1850*

Vishay Roederstein

Polycarbonate, Related Document: IEC 60 384-12

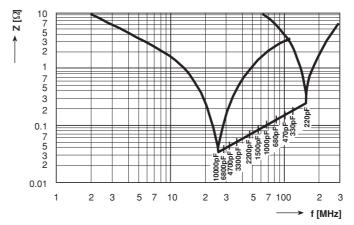


CAPACITANCE	CAPACITANCE CODE	VOLTAGE CODE 06 63 VDC/ 40 VAC		VOLTAGE CODE 01 100 VDC/ 63 VAC			VOLTAGE CODE 16 160 VDC/ 100 VAC			
		W	Н	L	W	Н	L	W	Н	L
220 pF	- 122	_	_	_	T —	_	_	2.5	6.5	7.2
330 pF	- 133	_	_	_	T —	_	_	2.5	6.5	7.2
470 pF	- 147	_	_	_	<u> </u>	_	_	2.5	6.5	7.2
680 pF	- 168	_	_	_	-	_	_	2.5	6.5	7.2
1000 pF	- 210	_	_	_	<u> </u>	_	_	2.5	6.5	7.2
1500 pF	- 215	_	_	_	2.5	6.5	7.2	3.5	8.5	7.2
2200 pF	- 222	_	_	_	2.5	6.5	7.2	3.5	8.5	7.2
3300 pF	- 233	2.5	6.5	7.2	-	_	_	_	_	_
4700 pF	- 247	2.5	6.5	7.2	-	_	_	_	_	_
6800 pF	- 268	3.0	7.5	7.2	-	_	- 43-	_	_	_
0.01 μF	- 310	3.5	8.5	7.2		- 4a	_	_	_	
Further C-values upon request. RECOMMENDED PACKAGING										
LETTER TYPE OF			HEIGHT (H) R		REEL DIAM				E PCM	

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)



Impedance versus Frequency Z = f (f) (Lead length 2.0mm)

^{*}Please note: these capacitors are not recommended for new designs.

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