YPPA SERIES High pulse - High performance

Metallized polypropylene film capacitor

Main applications : Snubber, SCR commutating circuits, electronic ballasts, protection circuits in SMPSs, deflectors circuits in TV sets, high voltage, high current and high pulse operation.

Dielectric : Polypropylene
Coating (flame retardant) : Solvent resistant plastic case with resin sealing (UL 94 V-0)
Terminals : Leed wire soldering on PCBs (please refer to article table)
Climatic category : 25/85/21 (IEC 60252-1)
Max. permissible ambient temperature : +70℃, operation at rated power, current, voltage and natural cooling (+85℃ observing voltage and current de-rating)
Rated capacitance (Cr) : 0,1 μF to 10 μF (YPPB). Refer to article table
Capacitance tolerance (at 1kHz) : ±5% (code=J), ±10% (code=K) and ±20% (code=M). Other tolerances upon request
Rated voltage (Ur) : 250, 400, 630, 1000, 1600, 2000Vdc (+85℃), please refer to article table
Maximum peak current (Ipeak) : Refer to article table. Max. non repetitive Ipk = 1,5 x Ipeak
Dissipation factor (DF), max. : (tgd x10-4, measured at 25±5℃)

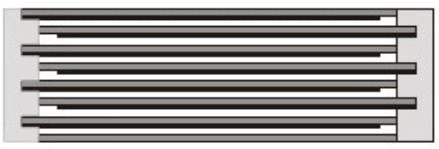
Freq.	Cr ≤ 0,1 μF	Cr〉1,0 μF
10kHz	5	6

Insulation resistance (IR) : Terminal to terminal⟶ not less than 1,000 ΩF, Terminal to case ⟶ not less than 2,000M Ω
Test voltage between terminals (Ut) : 1,6xUr (DC) applied for 10s / 2xUr (DC) applied for 2s, at 25±5℃
Test voltage between terminals and case (Utc) : 3kV 50/60Hz applied for 60s at 25±5℃

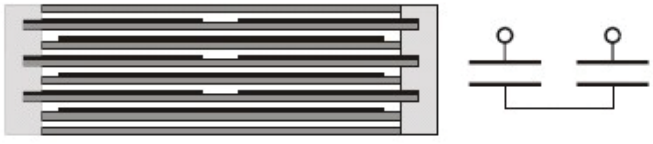
Comparative table of plastic film dielectric characteristics (typical values)				
Characteristic	Polyester	Polycarbonate	Polypropylene	Polystyrene
Relative dielectric costant (25℃,.1KHz)	3.3	2.8	2.2	2.5
Max working temperature (℃)	125	125	105	70
Loss factor (x10^{-4}, 1KHz/100KHz)	50/180	10/100	2/3	2/3
Insulation resistance (MΩ x μF, +20℃)	30	50	300	300
Temperature coefficient (ppm/℃)	-	+150	+200	-150
Dielectric strenght (v/μm)	250	180	350	150
Water absorption (% in weight)	0.2	0.3	〈0.01	0.1
Density (g/cm^3)	1.39	1.21	0.91	1.05

Capacitors winding

Obtained by rolling process with a stated number of different types of films or films and metal foils, having characteristics, arrangement and sequence function of design targets, in order to obtain cylindrical rolls called windings.



Extended metallized film design



Extended metallized film design with internal series connection (series connection of elements)