

# PZB300

- Delta EMI suppressor, classes X2 and Y2, metallized paper
- 0.1 and 0.15  $\mu\text{F}$  X2, 2200, 3300 and 4700 pF Y2, 275 VAC, +100 °C

- Class X2 and Y2
- Compact size
- Self-extinguishing encapsulation.
- PCB mounting or fast-on connection
- Excellent self-healing properties.

- Ensures long life even when subjected to frequent overvoltages.
- High dU/dt capability.
- Good resistance to ionisation due to impregnated dielectric material.

- The impregnated paper ensures excellent stability giving outstanding reliability properties, especially in applications having continuous operation.

## TYPICAL APPLICATIONS

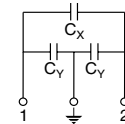
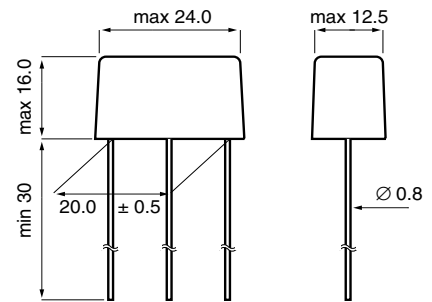
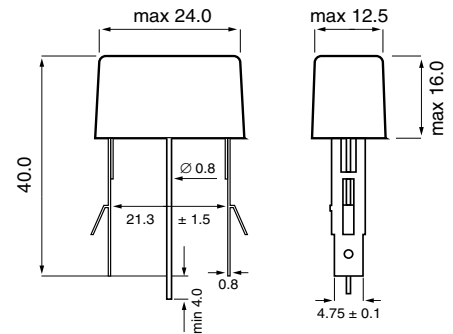
Interference suppressors with X2 + 2 x Y2 capacitors in a delta configuration.

## CONSTRUCTION

Multi-layer metallized paper. Encapsulated and impregnated in self-extinguishing material meeting the requirements of UL 94V-0.

## TECHNICAL DATA

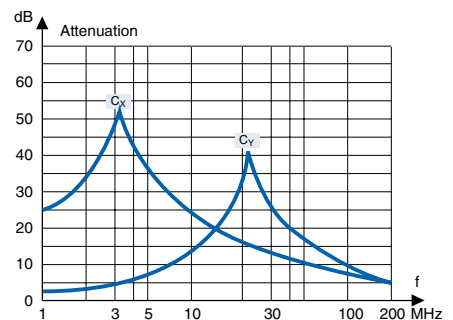
<b>Rated voltage</b>	275 VAC 50/60 Hz
<b>Capacitance X value, <math>\mu\text{F}</math></b>	0.1 and 0.15
<b>Capacitance Y value, pF</b>	2200, 3300 and 4700
<b>Capacitance tolerance</b>	$\pm 20\%$
<b>Temperature range</b>	-40 to +100°C
<b>Climatic category IEC</b>	40/100/56/B
<b>Approvals</b>	S, UL, CSA
<b>Dissipation factor <math>\tan\delta</math></b>	$\leq 1.3\%$ at 1 kHz
<b>Insulation resistance</b>	$\geq 12000\text{ M}\Omega$ Measured at 500 VDC after 60 s, +23°C
<b>Test voltage between terminals</b>	The 100% screening factory test is carried out at 2150 VDC for X2 capacitors and at 3000 VDC for Y2 capacitors. The voltage level is selected to meet the requirements in applicable equipment standards. All electrical characteristics are checked after the test.



## ENVIRONMENTAL TEST DATA

<b>Vibration</b>	IEC 60068-2-6 Test Fc	3 directions at 2 hour each 10 – 500 Hz at 0.75 mm or 98 m/s <sup>2</sup> (PZB300MC.. mounted on PC-board)	No visible damage No open or short circuit
<b>Bump</b>	IEC 60068-2-29 Test Eb	4000 bumps at 390 m/s <sup>2</sup>	No visible damage No open or short circuit
<b>Solderability</b>	IEC 60068-2-20 Test Ta	Solder globule method	Wetting time < 1 s
<b>Active flammability</b>	EN 132400		
<b>Passive flammability</b>	IEC 60384-14 (1993) EN 132400		
<b>Humidity</b>	IEC 60068-2-3 Test Ca	+40°C and 90 – 95% R.H.	56 days

## Suppression vs. frequency



Attenuation, typical values,  
0.1  $\mu\text{F}$  + 2 x 2200 pF

## ARTICLE TABLE

Capacitance		Max dimensions in mm				Quantity per package			Weight g	Max dU/dt V/ $\mu$ s		Approvals			Article code
C <sub>x</sub> $\mu$ F	C <sub>y</sub> pF	B	H	L	p	R30 pcs	R06 pcs	TAG pcs		C <sub>x</sub>	C <sub>y</sub>	S	UL	CSA	
0.10	2200	12.5	16.0	24.0	20.0	150	1000	125	7.5	600	1000	√	√	√	PZB300MC11R30
0.10	3300	12.5	16.0	24.0	20.0	150	1000	125	7.5	600	1000	√	√	√	PZB300MC12R30
0.10	4700	12.5	16.0	24.0	20.0	150	1000	125	7.5	600	1000	√	√	√	PZB300MC13R30
0.15	2200	12.5	16.0	24.0	20.0	150	1000	125	7.5	600	1000	√	√	√	PZB300MC21R30
0.15	3300	12.5	16.0	24.0	20.0	150	1000	125	7.5	600	1000	√	√	√	PZB300MC22R30
0.15	4700	12.5	16.0	24.0	20.0	150	1000	125	7.5	600	1000	√	√	√	PZB300MC23R30

## APPROVALS/REFERENCE DOCUMENTS

Certification Body	Specification	Approval reference
S	EN 132400	9650188-01
UL	UL 1283	E 100117
CSA	C 22.2 No. 8	53108

## MARKING

- RIFA
- RIFA article code
- Rated capacitance (X and Y)
- Rated voltage
- X2 and Y2
- SH, for self healing
- Climatic category according to IEC 60068-1, appendix A
- Passive flammability class
- Approval marks
- Circuit diagram
- Manufacturing code (year, month)

## ORDERING INFORMATION

The article code for the standard part is given in the article table.  
Fast-on: Add TAG instead of R30 in the standard article code.  
For other options, see page 21.

## PACKING

Capacitors in standard design are packed bulk in a box with dimensions 245 x 145 x 80 mm. Quantity/package as per article table.

Capacitors with lead length 5 or 6 mm are packed on trays piled in a box with dimensions 300 x 260 x 195 mm. Quantity/package as per article table.