

# PME289

- EMI suppressor, classes Y2 and X1, metallized paper
- 0.001 – 0.022  $\mu\text{F}$ , 250 VAC Y2, 300 VAC X1, +100 °C

- Self-extinguishing encapsulation. The material is recognized according to UL 94 V-0.
- Very precise positioning of the leads in relation to the case giving efficient utilisation of PC board space.
- Excellent self-healing properties. Ensure long life even when subjected to frequent overvoltages.
- High dU/dt capability.
- Good resistance to ionisation due to impregnated dielectric.
- The capacitors meet the most stringent IEC humidity class, 56 days.
- The impregnated paper ensures excellent stability giving outstanding reliability properties, especially in applications having continuous operation.

## TYPICAL APPLICATIONS

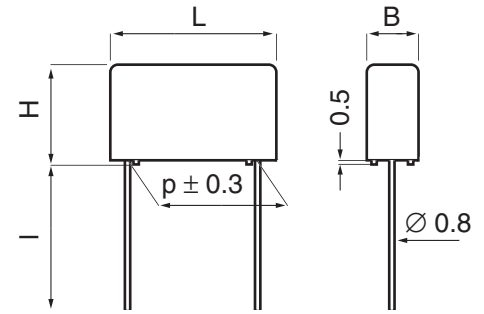
The capacitors are intended for use as interference suppressors in Y2 applications, line-to-earth.

## CONSTRUCTION

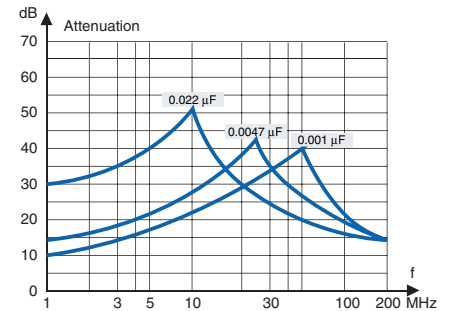
Multi-layer metallized paper. Encapsulated and impregnated in self-extinguishing material meeting the requirements of UL 94V-0.

## TECHNICAL DATA

<b>Rated voltage</b>	250 VAC, Y2; 300 VAC, X1; 50/60 Hz
<b>Capacitance range</b>	0.001 – 0.022 $\mu\text{F}$
<b>Capacitance tolerance</b>	$\pm 20\%$
<b>Temperature range</b>	-40 to +100 °C
<b>Climatic category IEC</b>	40/100/56/C
<b>Approvals</b>	S, N, D, FI, VDE, SEV, IMQ, 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>Resonance frequency</b>	Tabulated self-resonance frequencies $f_0$ refer to 5 mm lead length.
<b>In DC applications</b>	Recommended voltage: $\leq 1000\text{ VDC}$
<b>Test voltage between terminals</b>	The 100% screening factory test is carried out at 3000 VDC. The voltage level is selected to meet the requirements in applicable equipment standards. All electrical characteristics are checked after the test.



l = standard : 30 +5/-0 mm  
option : short leads, tolerance +0/-1 mm (standard 6 mm, code R06)  
Other lead lengths on request



Suppression versus frequency. Typical values.

## 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>	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

## ARTICLE TABLE

Capacitance $\mu\text{F}$	Max dimensions in mm				Quantity per package reel			Weight g	$f_o$ MHz	Max $dU/dt$ V/ $\mu\text{s}$	Article code
	B	H	L	p	R30 pcs	R06 pcs	taped pcs				
0.0010	4.5	11.5	13.0	10.0	800	1600	700	1.2	56	2000	PME289MA4100MR30
0.0015	4.5	10.5	13.0	10.0	800	1600	700	1.1	46	2000	PME289MA4150MR30
0.0022	5.5	10.5	13.0	10.0	800	1200	600	1.3	39	2000	PME289MA4220MR30
0.0025	5.5	10.5	13.0	10.0	800	1200	600	1.3	36	2000	PME289MA4250MR30
0.0033	5.5	12.5	13.0	10.0	800	1200	600	1.5	31	2000	PME289MA4330MR30
0.0039	5.5	12.5	13.0	10.0	800	1200	600	1.5	28	2000	PME289MA4390MR30
0.0047	5.5	13.5	13.0	10.0	600	1200	600	1.6	26	2000	PME289MA4470MR30
0.0047	5.5	13.0	18.0	15.0	500	1000	600	1.9	23	1400	PME289MB4470MR30
0.0068	5.5	14.0	18.0	15.0	500	800	600	2.0	18	1400	PME289MB4680MR30
0.010	7.5	13.5	18.0	15.0	400	600	400	2.6	15	1400	PME289MB5100MR30
0.015	8.5	14.5	18.0	15.0	250	500	400	3.0	12	1400	PME289MB5150MR30
0.022	8.5	17.0	18.0	15.0	250	400	400	3.6	9.8	1400	PME289MB5220MR30

## APPROVALS/REFERENCE DOCUMENTS

Certification Body	Specification	Approval reference
S	EN 132400	9511106 (Y2, X1)
N	EN 132400	P95101668 (Y2, X1)
D	EN 132400	303827 (Y2, X1)
FI	EN 132400	182217-01.02
VDE	EN 132400	131401
SEV	EN 132400	00.2217
IMQ	CEI 40-7/VI-1980	V 1307
UL	UL 1283	E 100117
	UL 1414 (250 VAC)	E 73869
CSA	C 22.2 No. 8	53108
	C 22.2 No. 1 (250 VAC)	53108

## MARKING

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

## ORDERING INFORMATION

The article code for the standard part is given in the article table.  
For other options, see page 12.