SMP253

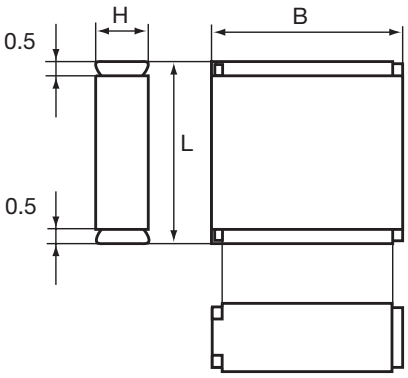
- **EMI suppressor, class Y2, metallized paper SMD**
- **0.001 – 0.0047 µF, 250 VAC, +100 °C**

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.



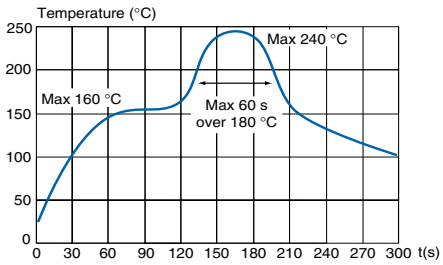
Components may be vertically mounted for decreased footprint. See page 69.

TECHNICAL DATA

Rated voltage	250 VAC 50/60 Hz
Capacitance range	0.001 – 0.0047 µF
Capacitance tolerance	± 20%
Temperature range	–40 to +100°C
Climatic category IEC	40/100/56/B
Approvals	S, UL, CSA
Dissipation factor tanδ	≤ 1.3 % at 1 kHz
Insulation resistance	≥ 12000 MΩ Measured at 500 VDC after 60 s, +23°C
Test voltage between terminals	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.

RECOMMENDED SOLDERING CONDITIONS

Electrode temperature, Reflow soldering
Preheating temperature should be less than 160°C. The time above 180°C should be less than 1 minute. The peak temperature must not exceed 240°C.



Recommended reflow soldering profile

ENVIRONMENTAL TEST DATA

Vibration	IEC 60068-2-6 Test Fc	3 directions at 2 hour each 10 – 500 Hz at 0.75 mm or 98 m/s²	No visible damage No open or short circuit
Active flammability	EN 132400		
Passive flammability	IEC 60384-14 (1993) EN 132400		Class B
Humidity	IEC 60068-2-3 Test Ca	+40°C and 90 – 95% R.H.	56 days

ARTICLE TABLE

Capacitance µF	Dimensions in mm ±0.2 mm B	H	L	Quantity per package Bulk	Reel	Max dU/dt V/µs	Approvals S	UL	CSA	Article code
CHIP LENGTH 12.7 MM CODE 5045										
0.0010	11.5	6.5	12.7	1000	600	2000	√	√	√	SMP253 MA4100M
0.0015	11.5	6.5	12.7	1000	600	2000	√	√	√	SMP253 MA4150M
0.0022	11.5	6.5	12.7	1000	600	2000	√	√	√	SMP253 MA4220M
0.0025	11.5	6.5	12.7	1000	600	2000	√	√	√	SMP253 MA4250M
0.0033	11.5	6.5	12.7	1000	600	2000	√	√	√	SMP253 MA4330M
0.0039	11.5	6.5	12.7	1000	600	2000	√	√	√	SMP253 MA4390M
0.0047	11.5	6.5	12.7	1000	600	2000	√	√	√	SMP253 MA4470M

APPROVALS/REFERENCE DOCUMENTS

Certification Body	Specification	Approval reference
S	EN 132400	9949069/01
UL	UL 1414	E73869
cUL recognition (CSA)	C 22.2 No. 1	E73869

MARKING

- RIFA
- Article code SMP
- Rated capacitance
- Rated voltage
- Y2
- Manufacturing code (year, month)

ORDERING INFORMATION

See article table and pages 18 to 23 for options and article code construction. Tape packaging, see page 69.