

# SMP253

- EMI suppressor, class Y2, metallized paper SMD
- 0.001 – 0.0047  $\mu\text{F}$ , 250 VAC, +100 °C

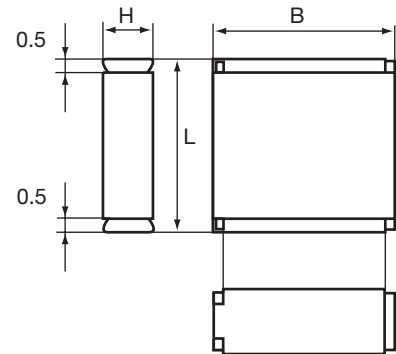
**RoHS**  
Compliant

## 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 20.

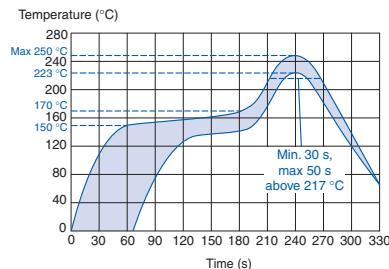
## TECHNICAL DATA

<b>Rated voltage</b>	250 VAC 50/60 Hz
<b>Capacitance range</b>	0.001 – 0.0047 $\mu\text{F}$
<b>Capacitance tolerance</b>	$\pm 20\%$
<b>Temperature range</b>	-40 to +100°C
<b>Climatic category IEC</b>	40/100/56/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 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

### Reflow soldering temperature measured on the top body surface of the component

Preheating temperature should be less than 170°C. The time above 217°C should be less than 50 s. The peak temperature must not exceed 250°C.



## 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>Active flammability</b>	EN 132400		
<b>Passive flammability</b>	IEC 60384-14 (1993) EN 132400		Class B
<b>Humidity</b>	IEC 60068-2-3 Test Ca	+40°C and 90 – 95% R.H.	56 days

## ARTICLE TABLE

Capacitance $\mu\text{F}$	Dimensions in mm $\pm 0.2$ mm			Quantity per package		Max dU/dt V/ $\mu\text{s}$	Approvals			Article code
	B	H	L	Bulk	Reel		S	UL	CS	
<b>CHIP LENGTH 12.7 MM CODE 5045</b>										
0.0010	11.5	6.5	12.7	1000	600	2000	√	√	√	SMP253 MA4100M TR24
0.0015	11.5	6.5	12.7	1000	600	2000	√	√	√	SMP253 MA4150M TR24
0.0022	11.5	6.5	12.7	1000	600	2000	√	√	√	SMP253 MA4220M TR24
0.0025	11.5	6.5	12.7	1000	600	2000	√	√	√	SMP253 MA4250M TR24
0.0033	11.5	6.5	12.7	1000	600	2000	√	√	√	SMP253 MA4330M TR24
0.0039	11.5	6.5	12.7	1000	600	2000	√	√	√	SMP253 MA4390M TR24
0.0047	11.5	6.5	12.7	1000	600	2000	√	√	√	SMP253 MA4470M TR24

## 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 below for options and article code construction. Tape packaging, see page 20.

