

Y1 capacitors

Rated ac voltage 250 V, 50/60 Hz

Construction

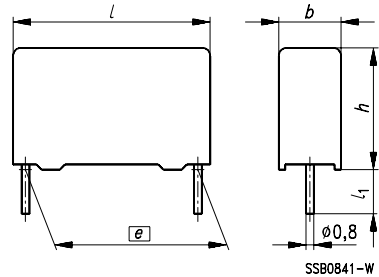
- Dielectric: polypropylene (MKP)
- Internal series connection
- Plastic case (UL 94 V-0)
- Epoxy resin sealing, flame-retardant
- Impregnated

Features

- Self-healing properties

Terminals

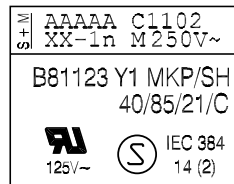
- Parallel wire leads, tinned
- Two standard lead lengths available:
 6 mm and 26 mm
 Other lead lengths available upon request.



Lead length l_1 mm	6 -1	26 ± 2
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Marking

Manufacturer's logo, lot number, date code, rated capacitance (coded), capacitance tolerance (code letter), rated ac voltage, type number, interference suppression sub-class (Y1), style (MKP), self-healing (SH), climatic category, awarded marks of conformity.

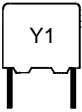


Delivery mode

Bulk (untaped)
 Taped (Ammo pack or reel)
 For notes on taping, refer to page 279.

Marks of conformity

Marks of conformity	Standards	Certificate
Ⓢ	EN 132 400 / IEC 384-14, 2nd edition	85 °C: 9645014-01 100 °C: 9725126-01
	UL 1414 double protection (125 Vac)	E97863/95NK32795A



B 81 123 250 Vac

Ordering codes and packing units

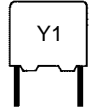
Lead spacing [e] ±0,4mm	C _R	Maximum dimensions <i>b × h × l</i> mm	Ordering code ¹⁾	Packing units (pcs)			
				Ammo pack	Reel	Untaped 6 mm	26 mm
15	1,0 nF	5,0 × 10,5 × 18,0	B81123-C1102-M***	1170	1300	1000	1000
	1,5 nF	6,0 × 11,0 × 18,0	B81123-C1152-M***	960	1100	1000	1000
	2,2 nF	7,0 × 12,5 × 18,0	B81123-C1222-M***	830	900	1000	800
	3,3 nF	8,5 × 14,5 × 18,0	B81123-C1332-M***	680	700	500	500
	4,7 nF	9,0 × 17,5 × 18,0	B81123-C1472-M***	640	700	500	500
22,5	5,6 nF	7,0 × 16,0 × 26,5	B81123-C1562-M***	580	600	630	500
	6,8 nF	8,5 × 16,5 × 26,5	B81123-C1682-M***	480	500	510	450
	10 nF	10,5 × 18,5 × 26,5	B81123-C1103-M***	390	400	540	300

Capacitance tolerance: ± 20 % ≐ M (closer tolerances upon request)

Technical data

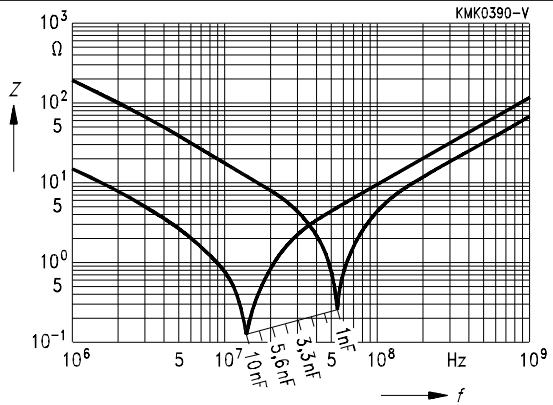
Climatic category in accordance with IEC 68-1	40/085/21
Lower category temperature T_{\min}	- 40 °C
Upper category temperature T_{\max}	+ 85 °C
Damp heat test	21 days/40 °C/93% relative humidity
Limit values after damp heat test	Capacitance change $ \Delta C/C $ ≤ 3 % Dissipation factor change $\Delta \tan \delta$ ≤ 0,5 · 10 ⁻³ (at 1 kHz) ≤ 1,0 · 10 ⁻³ (at 10 kHz) Insulation resistance R_{is} ≥ 50 % of minimum or time constant $\tau = C_R \cdot R_{\text{is}}$ as-delivered values
Permissible continuous ac voltage	750 V (50/60 Hz)
Permissible continuous dc voltage	3000 V
DC test voltage	4800 V, 2 s
Dissipation factor $\tan \delta$ at 20 °C (upper limit values)	5 · 10 ⁻³ (at 100 kHz)
Insulation resistance R_{is} at 20 °C, rel. humidity ≤ 65 % (minimum as-delivered value)	30 000 MΩ

1) Replace the * * * by the code number for the required lead length or packing.
000 = lead length 6 mm (untaped)
026 = lead length 26 mm (untaped)
289 = taped, Ammo pack
189 = taped, reel



Technical data

Impedance Z
versus frequency f
(typical values)



Pulse handling capability

Maximum permissible voltage change per unit of time for non-sinusoidal voltages (pulse, sawtooth).

V_R	Max. rate of voltage rise V_{pp}/τ (for $V_{pp} = \hat{V}_R$)	
	Lead spacing	
	15 mm	22,5 mm
250 Vac	3000	1000

For $V_{pp} < \hat{V}_R$, the permissible voltage rise rate V_{pp}/τ may be multiplied by the factor \hat{V}_R/V_{pp} . Also refer to the calculation example on [page 250](#).

V_R	Pulse characteristic k_0 in $V^2/\mu s$ (for $V_{pp} \leq \hat{V}_R$)	
	Lead spacing	
	15 mm	22,5 mm
250 Vac	2 100 000	700 000