

X1 capacitors
Rated ac voltage 440 V, 50/60 Hz
Construction

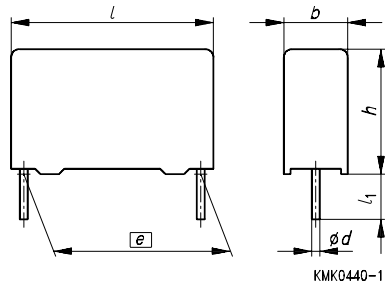
- Dielectric: polyester (MKT)
- Internal series connection
- Plastic case (UL 94 V-0)
- Epoxy resin sealing, flame-retardant

Features

- Self-healing properties

Terminals

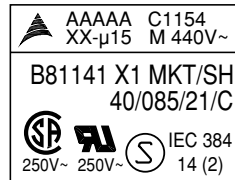
- Parallel wire leads, tinned
- Two standard lead lengths available:
6 mm and 26 mm
Other lead lengths available upon request.



Lead spacing $e \pm 0,4$	Lead diameter $\varnothing d$ (mm)	Lead length l_1 (mm)	
$\leq 27,5$ mm	0,8	6 - 1	26 ± 2
37,5 mm	1,0	6 - 1	26 ± 2

Marking

Manufacturer's logo, lot number, date code, rated capacitance (coded), capacitance tolerance (code letter), rated ac voltage, type number, interference suppression sub-class (X1), style (MKT), self-healing (SH), climatic category, awarded marks of conformity.



KMK0568-H




Delivery mode

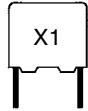
Bulk (untaped)

Taped (Ammo pack or reel)

For notes on taping, refer to chapter "Taping and packing", page 274.

Marks of conformity

Marks of conformity	Standards	Certificate
  	EN 132 400, IEC 384-14, 2nd edition UL 1414 (250 V) CSA C22.2 No. 0; 8 (250 V)	9547071-01 E 97863 LR 59709


Ordering codes and packing units

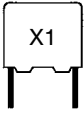
Lead spacing $\square \varnothing \pm 0,4$ mm	C_R	Maximum dimensions $b \times h \times l$ (mm)	Ordering code ¹⁾	Packing units (pcs)			
				Ammo pack	Reel	Untaped Lead length	
						6 mm	26 mm
15	10 nF	5,0 × 10,5 × 18,0	B81141-C1103-M***	1170	1300	1000	1000
	22 nF	7,0 × 12,5 × 18,0	B81141-C1223-M***	830	900	1000	800
	33 nF	8,5 × 14,5 × 18,0	B81141-C1333-M***	680	700	500	500
	47 nF	9,0 × 17,5 × 18,0	B81141-C1473-M***	640	700	500	500
22,5	68 nF	8,5 × 16,5 × 26,5	B81141-C1683-M***	480	500	510	450
	0,10 μF	10,5 × 16,5 × 26,5	B81141-C1104-M***	390	400	540	350
	0,15 μF	11,0 × 20,5 × 26,5	B81141-C1154-M***	370	350	510	300
27,5	0,22 μF	12,5 × 21,5 × 31,5	B81141-C1224-M***	–	300	280	200
	0,33 μF	14,0 × 24,5 × 31,5	B81141-C1334-M***	–	–	260	150
	0,47 μF	18,0 × 27,5 × 31,5	B81141-C1474-M***	–	–	200	100
37,5	0,68 μF	16,0 × 28,5 × 41,5	B81141-C1684-M***	–	–	100	–

Capacitance tolerance: $\pm 20\% \hat{=} M$ (closer tolerances upon request)

Technical data

Climatic category in accordance with IEC 60068-1	40/085/21
Lower category temperature T_{\min}	– 40 °C
Upper category temperature T_{\max}	+ 85 °C
Passive flammability category in accordance with IEC 40 (CO) 752	C
Damp heat test	21 days/40 °C/93 % relative humidity
Limit values after damp heat test	Capacitance change $ \Delta C/C \leq 5\%$ Dissipation factor change $\Delta \tan \delta \leq 5 \cdot 10^{-3}$ (at 1 kHz) Insulation resistance $R_{is} \geq 50\%$ of minimum or time constant $\tau = C_R \cdot R_{is}$ as-delivered values
Permissible continuous ac voltage	440 V (50/60 Hz)
Permissible continuous dc voltage	1000 V
DC test voltage	2500 V, 2 s

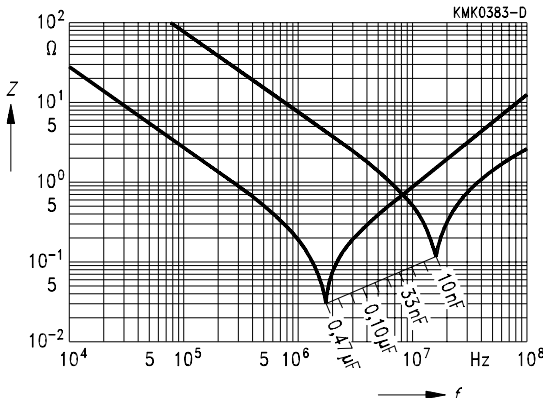
- 1) Replace the *** by the code number for the required lead length or packing.
 000 = lead length 6 mm (untaped)
 026 = lead length 26 mm (untaped)
 289 = taped, Ammo pack
 189 = taped, reel



B 81 141

440 Vac

Technical data

Dissipation factor $\tan \delta$ (in 10^{-3}) at 20 °C (upper limit values)		$C_R \leq 0,1 \mu\text{F}$	$0,1 \mu\text{F} < C_R \leq 1 \mu\text{F}$	$C_R > 1 \mu\text{F}$
	at 1 kHz	8	8	10
	10 kHz	15	15	—
	100 kHz	30	—	—
Insulation resistance R_{is} or time constant $\tau = C_R \cdot R_{is}$ at 20 °C, rel. humidity $\leq 65\%$ (minimum as-delivered values)	$C_R \leq 0,33 \mu\text{F}$	$C_R > 0,33 \mu\text{F}$		
	30 000 M Ω	10 000 s		
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 in V/ μs (for $V_{pp} = \hat{V}_R$)			
	Lead spacing			
	15 mm	22,5 mm	27,5 mm	37,5 mm
440 Vac	80	50	30	15

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 in chapter “General technical information”, page 302.

V_R	Pulse characteristic k_0 in $\text{V}^2/\mu\text{s}$ (for $V_{pp} \leq \hat{V}_R$)			
	Lead spacing			
	15 mm	22,5 mm	27,5 mm	37,5 mm
440 Vac	100 000	50 000	30 000	18 000

Herausgegeben von EPCOS AG

Marketing Kommunikation, Postfach 80 17 09, 81617 München, DEUTSCHLAND

© EPCOS AG 2000. Alle Rechte vorbehalten. Vervielfältigung, Veröffentlichung, Verbreitung und Verwertung dieser Broschüre und ihres Inhalts ohne ausdrückliche Genehmigung der EPCOS AG nicht gestattet.

Mit den Angaben in dieser Broschüre werden die Bauelemente spezifiziert, keine Eigenschaften zugesichert. Bestellungen unterliegen den vom ZVEI empfohlenen Allgemeinen Lieferbedingungen für Erzeugnisse und Leistungen der Elektroindustrie, soweit nichts anderes vereinbart wird.

Diese Broschüre ersetzt die vorige Ausgabe.

Fragen über Technik, Preise und Liefermöglichkeiten richten Sie bitte an den Ihnen nächstgelegenen Vertrieb der EPCOS AG oder an unsere Vertriebsgesellschaften im Ausland.

Bauelemente können aufgrund technischer Erfordernisse Gefahrstoffe enthalten. Auskünfte darüber bitten wir unter Angabe des betreffenden Typs ebenfalls über die zuständige Vertriebsgesellschaft einzuholen.

Published by EPCOS AG

Marketing Communications, P.O. Box 80 17 09, 81617 Munich, GERMANY

© EPCOS AG 2000. All Rights Reserved. Reproduction, publication and dissemination of this brochure and the information contained therein without EPCOS' prior express consent is prohibited.

The information contained in this brochure describes the type of component and shall not be considered as guaranteed characteristics. Purchase orders are subject to the General Conditions for the Supply of Products and Services of the Electrical and Electronics Industry recommended by the ZVEI (German Electrical and Electronic Manufacturers' Association), unless otherwise agreed.

This brochure replaces the previous edition.

For questions on technology, prices and delivery please contact the Sales Offices of EPCOS AG or the international Representatives.

Due to technical requirements components may contain dangerous substances. For information on the type in question please also contact one of our Sales Offices.