



Film Capacitors

Marking and ordering code system

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Marking and ordering code system

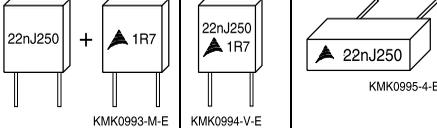
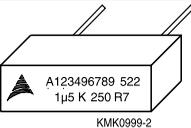
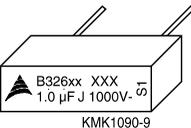
1 Capacitor markings

Depending on the capacitor size, the markings are positioned either on the side and/or the top of the component. The coded forms specified in IEC 60062 are used to indicate the rated capacitance, capacitance tolerance and date of manufacture.

The lot number (production batch number) ensures unique identification of a particular capacitor and allows, together with the date of manufacture, exact assignment to the process data of the entire production run (traceability).

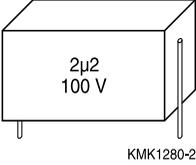
Marking examples

Boxed capacitors (without EMI suppression capacitors)

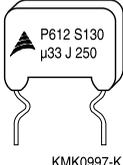
Style	Lead spacing	Marking example	Remarks
MKT	5 mm	 <p>Version 1 Version 2 Version 3</p>	<p>3 versions available:</p> <p>Version 1 – Front and back side: <i>Front side:</i> Manufacturer's logo, coded type "1", date of manufacture (year and month coded). <i>Back side:</i> C_R, tolerance, V_R</p> <p>Version 2 – Side stamping: Data as above</p> <p>Version 3 – Top stamping: Manufacturer's logo, C_R, tolerance, V_R</p>
	10 ... 27.5 mm		<p>Manufacturer's logo</p> <p><i>1st line:</i> Lot number (1 character, 9 digits), series number (film material is coded in the series number)</p> <p><i>2nd line:</i> C_R, tolerance, V_R (DC or AC), date of manufacture (year and month coded)</p>
MKP, MFP	37.5 mm 52.5 mm		<p>Manufacturer's logo</p> <p><i>1st line:</i> Series number, film material (MKP or MFP),</p> <p><i>2nd line:</i> C_R, tol., V_R (DC or AC)</p> <p><i>Vertical:</i> Date of manufacture (year and month coded)</p>

Marking and ordering code system

SilverCap™ capacitors

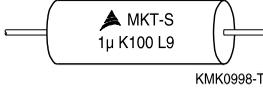
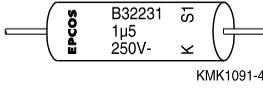
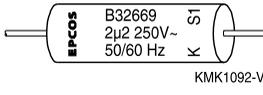
Style	Lead spacing	Marking example	Remarks
MKT	7.5 ... 27.5 mm		<i>1st line:</i> C _R <i>2nd line:</i> V _R

Dipped capacitors

Style	Lead spacing	Marking example	Remarks
MKT	10 mm		Manufacturer's logo, rated voltage capacitance (coded), cap. tol. (code letter)
MKT, MKP, MFP	≥15 mm		Manufacturer's logo <i>1st line:</i> Film material ("P" for polypropylene, "T" for polyester), series number, date of manufacture (year and month coded, day) <i>2nd line:</i> C _R , tol., V _R (DC or AC)

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Capacitors with axial leads

Style	Type	Marking example	Remarks
MKT	B32227 B32237		<i>1st line:</i> Manufacturer's logo, film material (MKT) <i>2nd line:</i> Series, date of manufacture (year and month coded) <i>3rd line:</i> C_R , tol., V_R
	B32537		<i>1st line:</i> Manufacturer's logo, film material (MKT-S) <i>2nd line:</i> C_R , tol., V_R , date of manufacture (year and month coded)
MKT	B32231 B32232		<i>Horizontal:</i> Series, C_R , V_R (V DC) <i>Vertical:</i> Manufacturer Tolerance, date of manufacture (year and month coded)
	MKP	B32669	

EMI suppression capacitors

Top marking	Manufacturer's logo		Lot number, Revision status
Front marking	Type number, interference suppression, sub-class, style/self-healing	M123123123 C XX-µ47 M 305V~	Date code, Capacitance, Cap. tolerance, Rated voltage
		B32923 X2 MKP/SH 40/105/56/B	Climatic category
		 	Marks of conformity
		KMK1001-C-E	

Marking and ordering code system
Codes for rated capacitance

Rated capacitance	To IEC 60062	Short code
100 pF	100p	n1
150 pF	150p	n15
1.0 nF	1n0	1n
1.5 nF	1n5	
10 nF	10n	
100 nF	100n	μ1
150 nF	150n	μ15
1.0 μF	1μ0	1μ
1.5 μF	1μ5	
10 μF	10μ	
15 μF	15μ	

Codes for capacitance tolerance

Cap. tolerance	Code letter	Remark
–	A	Capacitance tolerances for which no code letter is defined can be indicated by an A. The meaning of code A must then be mutually specified in other documentation.
± 5%	J	
± 10%	K	
± 20%	M	

Codes for date of manufacture (to IEC 90092)

Code for year				Code for month			
Year	Code letter	Year	Code letter	Month	Code numeral	Month	Code numeral/letter
2006	U	2012	C	January	1	July	7
2007	V	2013	D	February	2	August	8
2008	W	2014	E	March	3	September	9
2009	X	2015	F	April	4	October	O
2010	A	2016	H	May	5	November	N
2011	B	2017	J	June	6	December	D

E.g.: X5 Δ 2009 May

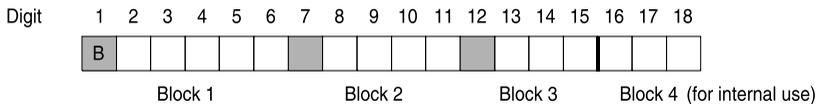
Marking and ordering code system

2 Ordering code system

A component and the packing in which it is to be delivered are defined by the ordering code, which has 15 digits (plus 3 additional digits for internal use). For all capacitors the ordering codes are explicitly stated (together with the corresponding tolerance and/or packing variants) in the data sheets.

Should there be any doubt about the coding system, however, then it is better to order the capacitor using a plain text description (i.e. without a code). In this case, the translation into the part number, which is required for internal handling of the order, will be done by us.

Basic structure of the ordering code:



Digit	Meaning						
1	B = Passive components						
2, 3	32 = Metallized film capacitors, EMI suppression capacitors 81 = EMI suppression capacitors						
4 ... 6	Type (block 1 is termed the "type number")						
7	Revision status (S = special type)						
8	Rated DC voltage, coded (not for EMI suppression capacitors)						
9 ... 11	Rated capacitance (coding method for value in pF) Examples: Digit B 3 2 6 5 2 A 3 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td>9</td><td>10</td><td>11</td></tr><tr><td>1</td><td>5</td><td>4</td></tr></table> K = $15 \cdot 10^4$ pF = 150 nF	9	10	11	1	5	4
9	10	11					
1	5	4					
12	Code letter for capacitance tolerance						
13 ... 15	Codes for lead and taping parameters (refer to respective data sheet). Special code for capacitors with "S" in digit 7.						
16 ... 18	Internal use						