Film Capacitor

Metallized Polyester Film Capacitor (MKT)

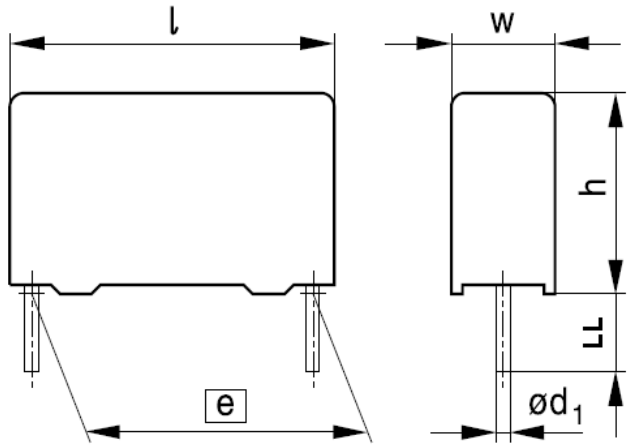
Series/Type:	**B32522S**
Ordering code:	**B32522S6474+*** **
Date:	2013-07-16
Version:	1

Applications

- Blocking
- Coupling, decoupling
- Bypassing
- RFI for automotive

Construction

- Dielectric: metallised polyethylene teraphthalate (PET)
- Stacked film technology
- Special plastic case for automotive applications (UL 94 V-0)
- Epoxy resin sealing



Features

- High thermal stability
- High pulse strength
- Miniaturized size
- RoHS compatible

Delivery mode

- Bulk (untaped)
- Taped (ammo pack or reel)

Dimensions

Lead spacing (e):	15.0 ± 0.4	mm
Width max. (w):	8.5	mm
Height max. (h):	14.5	mm
Length max. (l):	18.0	mm
Lead diameter (∅d_1):	0.8 ± 0.05	mm

Terminals

- Parallel wire leads
- Cooper clad steel wires, tinned

Composition of ordering code:

+ = Capacitance tolerance code

M = ± 20%

K = ± 10%

J = ± 5%

*** = Packing code:

589 = Ammo pack

590 = Reel pack

508 = Untaped (lead length 17 ± 3 mm)

500 = Untaped (lead length 6 – 1 mm)

MOQ = Minimum Order Quantity (4 packing units):

Ammo pack: 2720 pcs./MOQ

Reel pack: 2800 pcs./MOQ

Untaped: 2000 pcs./MOQ

Technical data

Operating temperature range	Climatic category according to IEC 68-1		55/125/56
	Max. operating temperature $T_{op,max}$		+125 °C
	Upper category temperature T_{max}		+125 °C
	Lower category temperature T_{min}		-55 °C
	Rated temperature T_R		+85 °C
Rated Capacitance C	0.47 µF		
Capacitance tolerance	J = ± 5%; K = ± 10 %; M = ±20%		
Rated DC voltage Ur_{dc}	400 V-		
Dissipation factor tan δ (in 10^{-3}) at 20 °C (upper limit values)	≤ 8		(at 1 kHz)
	≤ 15		(at 10 kHz)
Pulse handling capability (dV/dt)	125 V/µs		
Pulse handling capability (k_0)	100 000 V^2/µs		
Insulation resistance R_{ins} at 20 °C, rel. humidity ≤ 65% (minimum as-delivered values)	≥ 5320 MΩ		(100 V / 60 s)
DC test voltage	560 VDC, 2 s		
Category voltage V_C (continuous operation with V_{DC} or V_{AC} at f ≤ 60 Hz)	T_A (°C)	DC voltage derating	AC voltage derating
	T_A ≤ 85	$V_C = V_R$	$V_{C,RMS} = V_{RMS}$
	85 < T_A ≤ 125	$V_C = V_R \cdot (165\text{-}T_A) / 80$	$V_{C,RMS} = V_{RMS} \cdot (165\text{-}T_A) / 80$
Reliability test	According to IEC 60384-2		

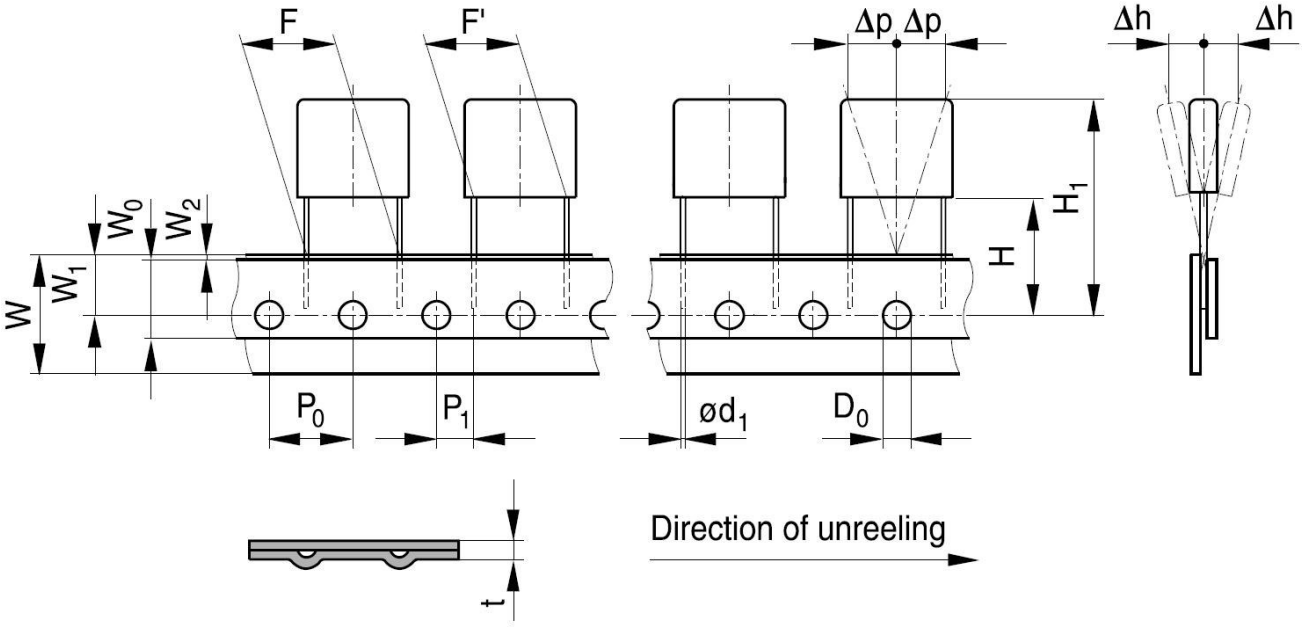
Taping and packing:

Taping to IEC 60286-2.

Tape dimensions

Standard 15 mm

P_0 = 12.7 mm



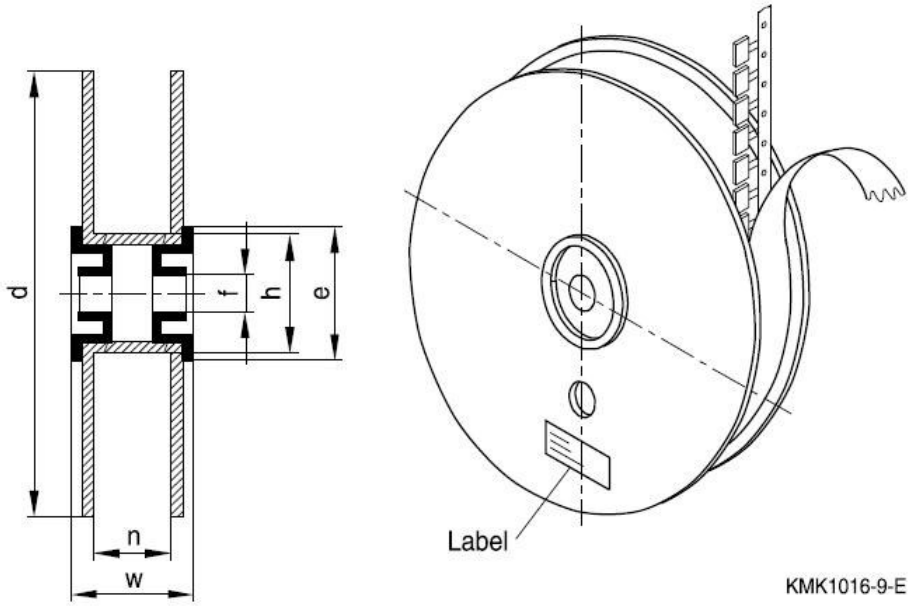
Symbol	Ød$_1$	D$_0$	F	F'	H	H$_1$	P$_0$	P$_1$
Dimension (mm)	0.8	4.0	15.0	15.0	18.5	33.5	12.7	5.2
Tolerance (mm)	±0.05	±0.2	+0.6/-0.1	±0.4	±0.5	max.	±0.2*)	±0.7

Symbol	W	W$_0$	W$_1$	W$_2$	t	Δh	Δp
Dimension (mm)	18.0	12.0	9.0	0.5	0.7	0	0
Tolerance (mm)	±0.5	±0.5	±0.5	+2.5	±0.2	±2.0	±1.3

*) ±1 per 20 x P_0

Packing

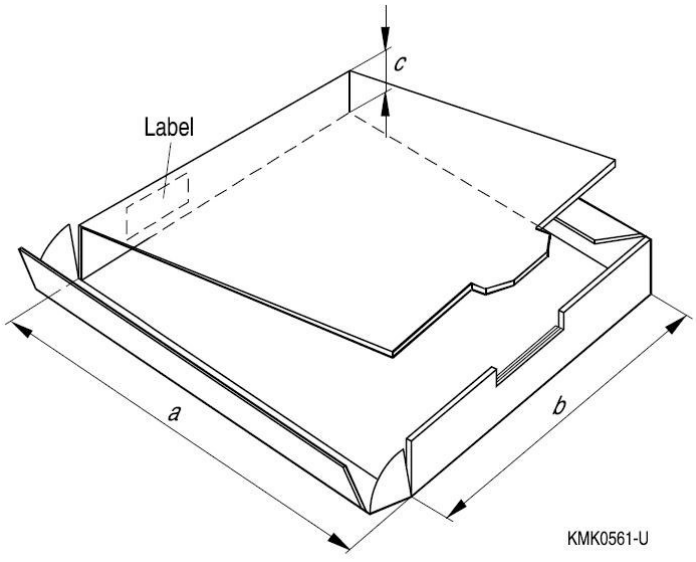
Reel pack:



Symbol	n	w	Ød	Øe	Øf	Øh
Dimensions (mm)	54 +1	70 max.	500 -1	130	30.5 ±0.2	126 +1

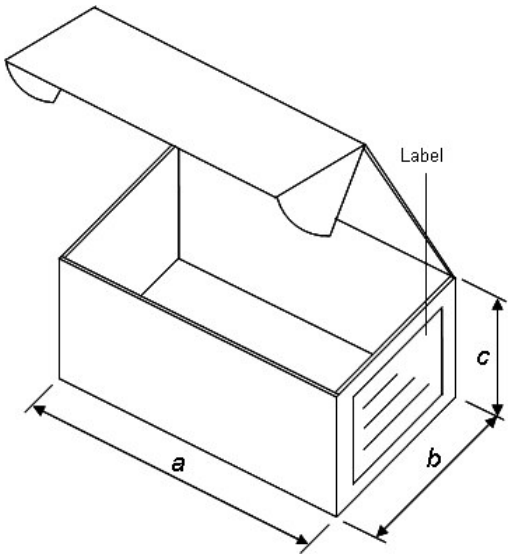
Ammo pack:

Symbol	Dimensions (mm)
a	480
b	355
c	60



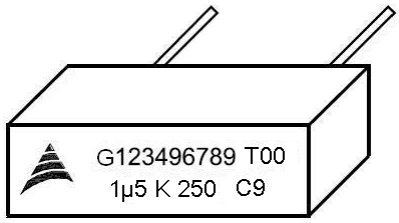
Bulk :

Symbol	Dimensions (mm)
a	280
b	170
c	80



Capacitor marking:

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 particular capacitor and allows, together with the date of manufacture, exact assignment to the process data of the entire production run (traceability).

Marking example	Remarks
	Manufacturer's logo *1st line*: Lot number (1 character, 9 digits), series number (coded). *2nd line:* C_R, tolerance, V_R, date of manufacture (year and month coded).

Codes for capacitance tolerance

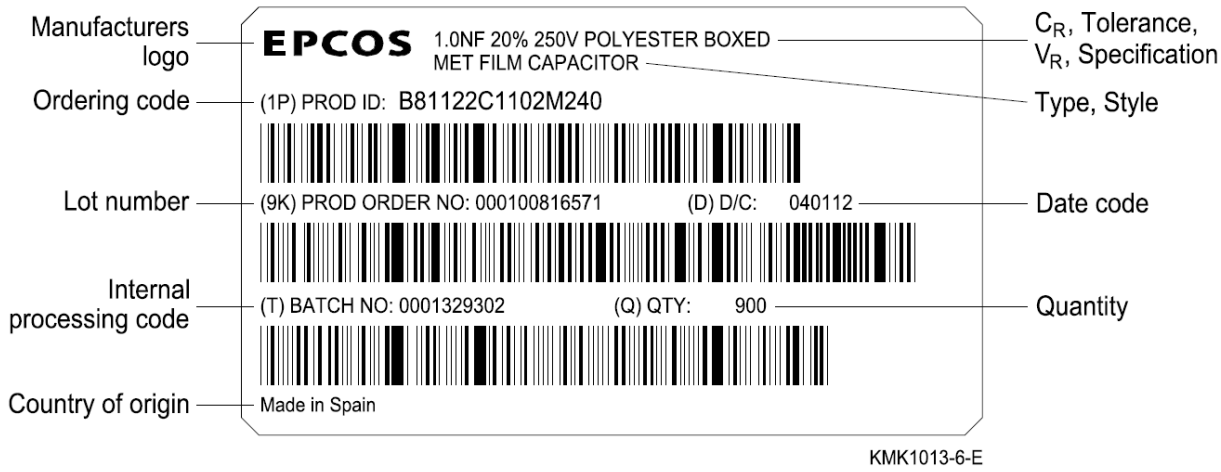
Cap. tolerance	Code letter	Remark
± 5%	J	
± 10%	K	
± 20%	M	

Codes for date of manufacture (to IEC 90092)

Code for year		Code for month				
Year	Code letter	Month	Code numeral		Month	Code numeral/ letter
2012	C	January	1		July	7
2013	D	February	2		August	8
2014	E	March	3		September	9
2015	F	April	4		October	O
2016	G	May	5		November	N
2017	H	June	6		December	D

Label information:

The packing of all EPCOS components bears a bar code label stating the type, ordering code, quantity, date of manufacture and batch number. This enables a component to be trace back through the production process, together with its batch and test report.



Storage conditions:

All capacitors listed in this data book can be stored at any temperature within the entire category temperature range for short periods. For long storage periods, however, the following conditions should be observed:

- storage temperature –40 to + 40ºC,
- maximum relative humidity 80%, no dew allowed on the capacitor
- maximum duration 5 years

Important notes

The following applies to all products named in this publication:

1. Some parts of this publication contain **statements about the suitability of our products for certain areas of application**. These statements are based on our knowledge of typical requirements that are often placed on our products in the areas of application concerned. We nevertheless expressly point out **that such statements cannot be regarded as binding statements about the suitability of our products for a particular customer application.** As a rule, EPCOS is either unfamiliar with individual customer applications or less familiar with them than the customers themselves. For these reasons, it is always ultimately incumbent on the customer to check and decide whether an EPCOS product with the properties described in the product specification is suitable for use in a particular customer application.
2. We also point out that **in individual cases, a malfunction of electronic components or failure before the end of their usual service life cannot be completely ruled out in the current state of the art, even if they are operated as specified.** In customer applications requiring a very high level of operational safety and especially in customer applications in which the malfunction or failure of an electronic component could endanger human life or health (e.g. in accident prevention or life-saving systems), it must therefore be ensured by means of suitable design of the customer application or other action taken by the customer (e.g. installation of protective circuitry or redundancy) that no injury or damage is sustained by third parties in the event of malfunction or failure of an electronic component.
3. **The warnings, cautions and product-specific notes must be observed.**
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