Film Capacitor

Metallized polypropylene Film Capacitor

Series/Type:	**B32672L1**
Ordering code:	**B32672L1183K004**
Date:	2018-01-30
Version:	a

EPCOS AG is a TDK Group Company.

Applications
- Electronic ballasts
- Switch-mode power supplies
- High-frequency AC loads
- Pulse circuits

Climatic
- Max. operating temperature: 125°C
- Climatic category (IEC 60068-1): 55/110/56

Construction
- Dielectric: polypropylene (PP)
- Wound capacitor technology
- plastic case (UL 94 V-0)
- Epoxy resin sealing

Features
- Very compact design
- Very small dimensions
- Very high ripple and peak current
- High frequency AC operation capability
- High voltage capability
- Excellent self-healing property
- ROHS-compatible

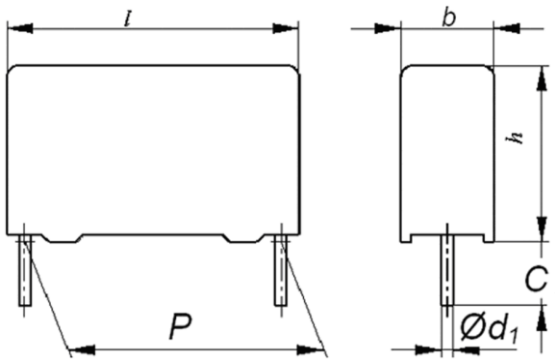
Terminals
- Parallel wire leads
- Lead-free tinned

Marking
- Manufacturer's logo
- Lot number, series number
- Rated capacitance (coded)
- Cap. Tolerance (code letter)
- Rated voltage
- Date of manufacture (coded)

Delivery mode
- Bulk (untapped)
- MOQ: 4 PU(4x500pcs)

Dimensions
- Lead spacing (P): 15 ± 0.4 mm
- Width max. (b): 11.0 mm
- Height max. (h): 18.5 mm
- Length max. (l): 18.0 mm
- Lead diameter(φd1): 0.8 ± 0.05 mm
- Lead length(C): 4.0 ± 0.3 mm

Dimensional drawings
Length



Dimensions in mm

Technical data (reference standard: IEC60384-16)

Operation temperature range	Max. operating temperature $T_{op, max}$		+125 °C
	Upper category temperature T_{max}		+110 °C
	Lower category temperature T_{min}		-55 °C
	Rated temperature T_R		+85 °C
Rated Capacitance C	18 nF		
Capacitance tolerance	± 10 % (K)		
Dissipation factor tan δ (in 10^{-3})	1 kHz	0.8	
at 20 °C (upper limit values)	10 kHz	1.0	
(upper limit values)	100 kHz	2.0	
Insulation resistance R_{ins} at 100V or time constant $\tau=C_R \cdot R_{ins}$ at 20 °C, rel. humidity ≤ 65% (minimum as-delivered values)	100 GΩ		
Rate voltage U_R	1600 Vdc 600 Vac		
DC test voltage	$1.6 \cdot V_R$, 2s		
Pulse handling capability (dV/dT)	2000 V/µs		
Category voltage Vc	T_{op} (°C)	DC voltage derating	AC voltage derating
(continuous operation with V_{DC}	$T_{op} \leq 85$	$V_C = V_R$	$V_{C,RMS} = V_{RMS}$
Or V_{AC} at f ≤ 1 kHz)	$85<T_{op}\leqslant 110$	$V_C = V_R \cdot (165-T_{OP})/80$	$V_{C,RMS} = V_{RMS} \cdot (165-T_{OP})/80$
Operating voltage V_{op} for	T_{op} (°C)	DC voltage (max. hours)	AC voltage (max. hours)
short operating periods	$T_{op} \leq 100$	$V_{op} = 1.25 \cdot V_c$ (2000h)	$V_{op} = 1.0 \cdot V_{c,RMS}$ (2000h)
(V_{DC} or V_{AC} at f ≤ 1 kHz)	$100<T_{op}\leqslant 125$	$V_{op} = 1.25 \cdot V_c$ (1000h)	$V_{op} = 1.0 \cdot V_{c,RMS}$ (1000h)
Reliability Failure rate λ Service life t_{SL}	1 fit (≤$1 \cdot 10^{-9}$/h) at $0.5 \cdot V_R$, 40 °C 200 000 h at $1.0 \cdot V_R$, 85 °C For conversion to other operating conditions and temperatures, refer to chapter “Quality, 2 Reliability”.		
Failure criteria Total failure Failure due to variation of parameters	Short circuit or open circuit Capacitance change $\lvert \triangle C/C \rvert$ Dissipation factor tan δ Insulation resistance R_{ins} Or time constant τ		> 10% > 4·upper limit values < 1500 MΩ

Cautions and warnings

- Do not exceed the upper category temperature (UCT).
- Do not apply any mechanical stress to the capacitor terminals.
- Avoid any compressive, tensile or flexural stress.
- Do not move the capacitor after it has been soldered to the PC board.
- Do not pick up the PC board by the soldered capacitor.
- Do not place the capacitor on a PC board whose PTH hole spacing differs from the specified lead spacing.
- Do not exceed the specified time or temperature limits during soldering.
- Avoid external energy inputs, such as fire or electricity.
- Avoid overload of the capacitors.

The table below summarizes the safety instructions that must always be observed. A detailed description can be found in the relevant sections of the chapters "General technical information" and "Mounting guidelines".

Topic	Safety information	Reference chapter "General technical information"
Storage conditions	Make sure that capacitors are stored within the specified range of time, temperature and humidity conditions.	4.5 "Storage conditions"
Flammability	Avoid external energy, such as fire or electricity (passive flammability), avoid overload of the capacitors (active flammability) and consider the flammability of materials.	5.3 "Flammability"
Resistance to vibration	Do not exceed the tested ability to withstand vibration. The capacitors are tested to IEC 60068-2-6. EPCOS offers film capacitors specially designed for operation under more severe vibration regimes such as those found in automotive applications. Consult our catalog "Film Capacitors for Automotive Electronics".	5.2 "Resistance to vibration"
Topic	Safety information	Reference chapter "Mounting guidelines"
Soldering	Do not exceed the specified time or temperature limits during soldering.	1 "Soldering"
Cleaning	Use only suitable solvents for cleaning capacitors.	2 "Cleaning"
Embedding of capacitors in finished assemblies	When embedding finished circuit assemblies in plastic resins, chemical and thermal influences must be taken into account. Caution: Consult us first, if you also wish to embed other uncoated component types!	3 "Embedding of capacitors in finished assemblies"

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