

MPBF SERIES

MKP AC-FILTER CAPACITOR

METALLIZED POLYPROPYLENE CAPACITOR ▲ THT type

High frequency capability

AEC-Q200 on request, contact MGT for more details

Self-healing property

Optimized AC voltage performance

Available in 2 pin and 4 pin version

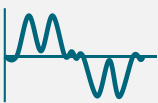

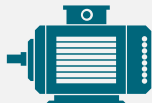




SPECIFICATION

Item		Characteristics			
Related Documents		IEC 61071 / 60068			
Rated Temperature Range		-40°C to +85°C			
Usable Temperature Range ^{Note 1}		-40°C to +105°C			
Capacitance Range	C _R	1.0μF to 60μF			
Capacitance Tolerance	ΔC	±5% ▲ ±10%			
Nominal DC Voltage at 85°C	V _{N DC}	400V _{DC}	500V _{DC}	600V _{DC}	
Nominal AC Voltage at 85°C	V _{N AC}	250V _{AC}	300V _{AC}	350V _{AC}	
Operating AC Voltage at 105°C	V _{OP AC}	170V _{AC}	210V _{AC}	240V _{AC}	
Peak Current	I _{PEAK}	68A to 900A			
RMS Current ^{Note 2}	I _{RMS}	3A to 29A			
Equivalent Series Resistance ^{Note 3}	ESR	5mΩ to 80mΩ			
Maximum Pulse Rise Slope dV/dt (V/μs)	Pitch (mm)	250V _{AC}	300V _{AC}	350V _{AC}	
	27.5	50	68	100	
	37.5	25	35	50	
	52.5	12	15	50	

Note:

- 1: With specified voltage derating
- 2: Measured at 10kHz
- 3: Measured at 10kHz

APPLICATIONS

Harmonic Filter	Industrial	Motors & Drives	Renewable Energy	Traction	UPS Systems	Welding Inverter
						

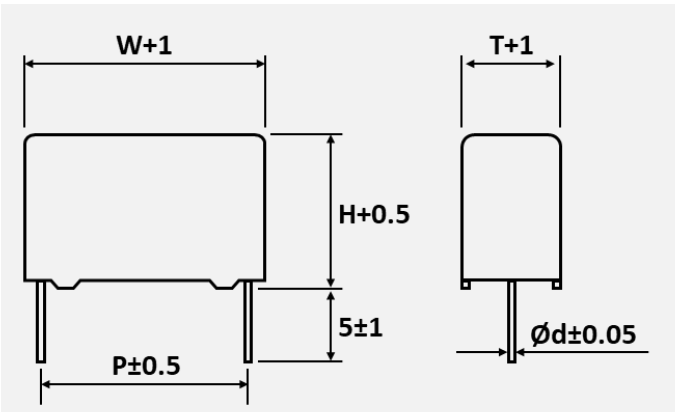
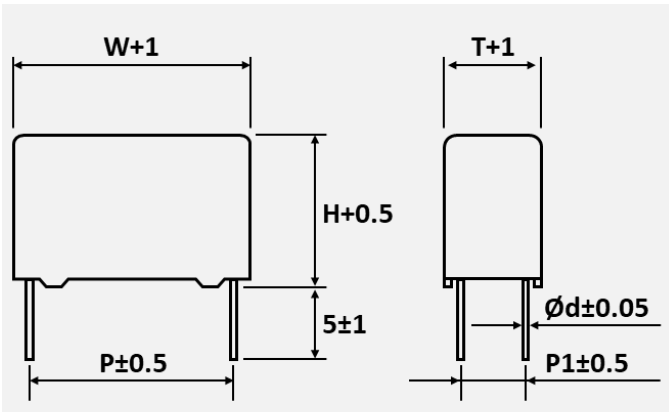
ELECTRICAL CHARACTERISTICS

V_{NAC} at 85°C	C_R (μF)	Dimensions (mm)			P (mm)	P1 (mm)	ϕd (mm)	dV/dt (V/ μs)	I_{PEAK} (A)	ESR at 10kHz (m Ω)	I_{RMS} at 10kHz (A) Note 1	SPQ Note 2 (pcs)	Part Number Note 3
		W	H	T									
250V _{AC}	2.0	31	18	9	27.5	-	0.8	50	100	45	3	207	MPBF205□0250AB127B
	2.5	31	20	10	27.5	-	0.8	50	125	35	3.5	171	MPBF255□0250AB127B
	3.3	31	20.5	12	27.5	-	0.8	50	165	25	5	171	MPBF335□0250AB127B
	5.0	31	24.5	15	27.5	-	0.8	50	250	14	8	153	MPBF505□0250AB127B
	8.0	31	33	18	27.5	-	0.8	50	400	10	9	126	MPBF805□0250AB127B
	10.0	31	37	22	27.5	-	0.8	50	500	9	11	99	MPBF106□0250AB127B
	12.0	31	37	22	27.5	-	0.8	25	300	7	12	99	MPBF126□0250AB127B
	15.0	41.5	35.5	22.5	37.5	10.2	1.2	25	375	9	14	70	MPBF156□0250AB137B-F
	15.0	41.5	35.5	22.5	37.5	-	1.0	25	375	10	13	70	MPBF156□0250AB137B
	16.0	41.5	35.5	22.5	37.5	10.2	1.2	25	400	8	14	70	MPBF166□0250AB137B-F
	16.0	41.5	35.5	22.5	37.5	-	1.0	25	400	9	13	70	MPBF166□0250AB137B
	20.0	41.5	38	28	37.5	10.2	1.2	25	500	6	16	56	MPBF206□0250AB137B-F
	20.0	41.5	38	28	37.5	-	1.0	25	500	7	15	56	MPBF206□0250AB137B
	30.0	41.5	45	30	37.5	20.3	1.2	12	360	5	19	56	MPBF306□0250AB137B-FF
	30.0	41.5	45	30	37.5	-	1.0	12	360	5.5	18	56	MPBF306□0250AB137B
	40.0	58	45	30	52.5	20.3	1.2	12	480	5	23	40	MPBF406□0250AB152B-FF
	50.0	58	50	35	52.5	20.3	1.2	12	600	5	26	35	MPBF506□0250AB152B-FF
	60.0	58	50	35	52.5	20.3	1.2	12	720	5	29	35	MPBF606□0250AB152B-FF

Note:

- I_{RMS} at 70°C
- SPQ = Standard Pack Quantity in pcs
- Enter the appropriate tolerance code □ from the product code table

PACKAGE OUTLINE ▲ All dimensions in mm

2-Pin Version	4-Pin Version
 <p>Diagram showing the 2-Pin Version package outline. Dimensions include: W+1 (width), T+1 (thickness), H+0.5 (height), 5±1 (lead height), P±0.5 (pitch), and $\phi d \pm 0.05$ (lead diameter).</p>	 <p>Diagram showing the 4-Pin Version package outline. Dimensions include: W+1 (width), T+1 (thickness), H+0.5 (height), 5±1 (lead height), P±0.5 (pitch), $\phi d \pm 0.05$ (lead diameter), and P1±0.5 (pin 1 offset).</p>

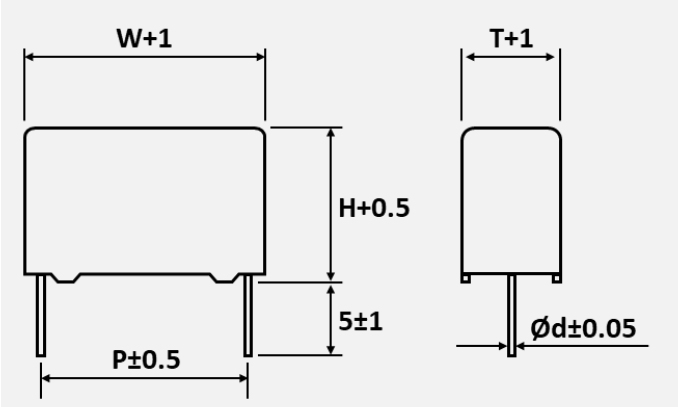
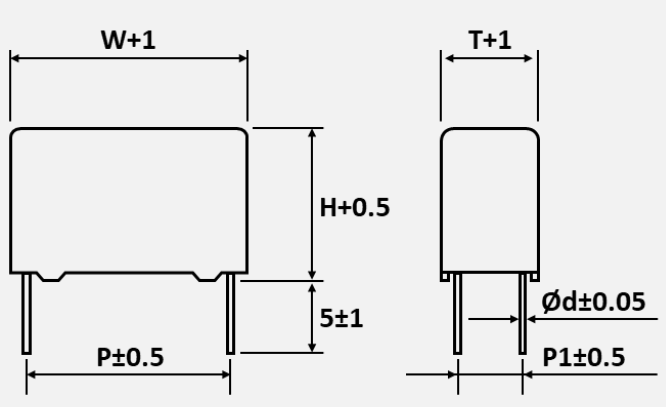
ELECTRICAL CHARACTERISTICS

V_{NAC} at 85°C	C_R (μF)	Dimensions (mm)			P (mm)	P1 (mm)	ϕd (mm)	dV/dt (V/ μs)	I_{PEAK} (A)	ESR at 10kHz (m Ω)	I_{RMS} at 10kHz (A) Note 1	SPQ Note 2 (pcs)	Part Number Note 3
		W	H	T									
300V _{AC}	1.0	31	18	9	27.5	-	0.8	68	68	80	3	252	MPBF105□0300AB127B
	1.5	31	20	10	27.5	-	0.8	68	102	50	4	207	MPBF155□0300AB127B
	2.2	31	22	13	27.5	-	0.8	68	150	45	5	171	MPBF225□0300AB127B
	3.3	31	24.5	15	27.5	-	0.8	68	225	35	8	153	MPBF335□0300AB127B
	5.0	31	33	18	27.5	-	0.8	68	340	20	11	126	MPBF505□0300AB127B
	7.5	31	37	22	27.5	-	0.8	68	510	15	13	99	MPBF755□0300AB127B
	10.0	41.5	35.5	22.5	37.5	10.2	1.2	35	350	10	13	70	MPBF106□0300AB137B-F
	10.0	41.5	35.5	22.5	37.5	-	1.0	35	350	11	12	70	MPBF106□0300AB137B
	14.0	41.5	38	28	37.5	10.2	1.2	35	490	8	14	56	MPBF146□0300AB137B-F
	14.0	41.5	38	28	37.5	-	1.0	35	490	9	13	56	MPBF146□0300AB137B
	15.0	41.5	38	28	37.5	20.3	1.2	35	525	6	14	56	MPBF156□0300AB137B-FF
	15.0	41.5	38	28	37.5	-	1.0	35	525	7	13	56	MPBF156□0300AB137B
	20.0	41.5	45	30	37.5	20.3	1.2	35	700	5	16	56	MPBF206□0300AB137B
	20.0	41.5	45	30	37.5	-	1.0	35	700	5.5	15	56	MPBF206□0300AB137B
	20.0	58	40	26	52.5	-	1.0	15	300	15	13	45	MPBF206□0300AB152B
	25.0	58	45	30	52.5	20.3	1.2	15	375	9	18	40	MPBF256□0300AB152B-FF
	30.0	58	50	35	52.5	20.3	1.2	15	450	8	20	35	MPBF306□0300AB152B-FF
	35.0	58	50	35	52.5	20.3	1.2	15	525	7	23	35	MPBF356□0300AB152B-FF
	40.0	58	50	35	52.5	20.3	1.2	15	600	6	25	35	MPBF406□0300AB152B-FF

Note:

- I_{RMS} at 70°C
- SPQ = Standard Pack Quantity in pcs
- Enter the appropriate tolerance code □ from the product code table

PACKAGE OUTLINE ▲ All dimensions in mm

2-Pin Version	4-Pin Version
 <p>Diagram showing the 2-Pin Version package outline. Dimensions include: W+1 (width), T+1 (terminal width), H+0.5 (height), 5±1 (lead length), P±0.5 (pitch), and $\phi d \pm 0.05$ (terminal diameter).</p>	 <p>Diagram showing the 4-Pin Version package outline. Dimensions include: W+1 (width), T+1 (terminal width), H+0.5 (height), 5±1 (lead length), P±0.5 (pitch), $\phi d \pm 0.05$ (terminal diameter), and P1±0.5 (pin 1 offset).</p>

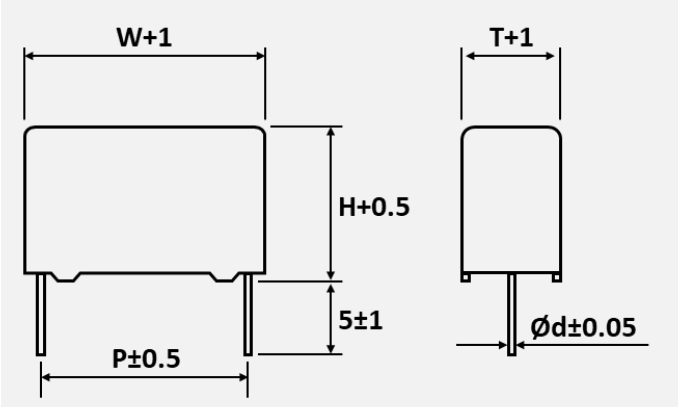
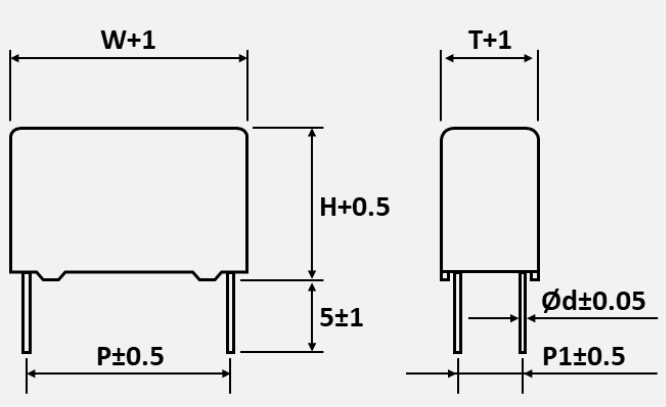
ELECTRICAL CHARACTERISTICS

V_{NAC} at 85°C	C_R (μF)	Dimensions (mm)			P (mm)	P1 (mm)	ϕd (mm)	dV/dt (V/ μs)	I_{PEAK} (A)	ESR at 10kHz (m Ω)	I_{RMS} at 10kHz (A) Note 1	SPQ Note 2 (pcs)	Part Number Note 3
		W	H	T									
350V _{AC}	1.0	31	20	10	27.5	-	0.8	100	100	45	3	207	MPBF105□0350AB127B
	1.5	31	23.5	14	27.5	-	0.8	100	150	28	4.5	162	MPBF155□0350AB127B
	2.2	31	24.5	15	27.5	-	0.8	100	200	21	6.5	153	MPBF225□0350AB127B
	3.5	31	33	18	27.5	-	0.8	100	300	13	10	126	MPBF355□0350AB127B
	5.0	31	37	22	27.5	-	0.8	100	500	10	13	99	MPBF505□0350AB127B
	7.5	31	35.5	22.5	37.5	10.2	1.2	50	375	10	12	70	MPBF755□0350AB137B-F
	7.5	41.5	35.5	22.5	37.5	-	1.0	50	375	10.5	11	70	MPBF755□0350AB137B
	10.0	41.5	38	28	37.5	10.2	1.2	50	500	9	14	56	MPBF106□0350AB137B-F
	10.0	41.5	38	28	37.5	-	1.0	50	500	10	13	56	MPBF106□0350AB137B
	13.0	41.5	45	30	37.5	20.3	1.2	50	650	6	16	56	MPBF136□0350AB137B-FF
	13.0	41.5	45	30	37.5	-	1.0	50	650	7	15	56	MPBF136□0350AB137B
	15.0	41.5	45	32	37.5	20.3	1.2	50	750	7	16	49	MPBF156□0350AB137B-FF
	18.0	58	45	30	52.5	20.3	1.2	50	900	6	17	40	MPBF186□0350AB152B-FF
	20.0	58	45	30	52.5	20.3	1.2	35	700	6	18	40	MPBF206□0350AB152B-FF
	25.0	58	50	35	52.5	20.3	1.2	35	875	5	21	35	MPBF256□0350AB152B-FF

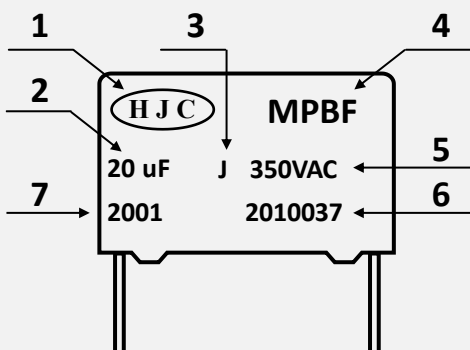
Note:

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- SPQ = Standard Pack Quantity in pcs
- Enter the appropriate tolerance code □ from the product code table

PACKAGE OUTLINE ▲ All dimensions in mm

2-Pin Version	4-Pin Version
 <p>Diagram showing the 2-Pin Version package outline. Dimensions include: W+1 (width), H+0.5 (height), 5±1 (lead height), P±0.5 (pitch), T+1 (terminal thickness), and $\phi d \pm 0.05$ (lead diameter).</p>	 <p>Diagram showing the 4-Pin Version package outline. Dimensions include: W+1 (width), H+0.5 (height), 5±1 (lead height), P±0.5 (pitch), T+1 (terminal thickness), $\phi d \pm 0.05$ (lead diameter), and P1±0.5 (pin 1 position).</p>

PRODUCT MARKING

Marking	Details
	No. Description
	1 Manufacturer Logo
	2 Nominal capacitance in μF
	3 Capacitance tolerance
	4 Series name
	5 DC rated voltage
	6 Lot number
	7 Date code

DATE CODE

Example:

Date code

2001: 2001 = 1st week of 2020

Lot number

2010037: 20 = Year, here 2020
1 = Month, here January
0001 to XXXX = Serial number

20		01	
Year		Week	
19	2019	01	1 st
20	2020	02	2 nd
21	2021	03	3 rd
22	2022	04	4 th
23	2023	05	5 th
...
30	2030	53	53 rd

PRODUCT CODE

Example: MPBF series ▲ 20 μF ▲ 350V_{AC} ▲ $\pm 5\%$ ▲ P=52.5mm ▲ 4-Pins ▲ P1=20.3mm ▲ Bulk ▲ Straight leads ▲ 5mm lead length

MPBF		206		J		350		A		B		1		52		B		-FF	
Series		Capacitance Code <small>Note1</small> (pF)		Capacitance Tolerance (%)		Rated Voltage (V _{DC})		Voltage Type		Packaging Type		Lead Configuration <small>Note2</small>		Pitch (mm)		Lead Length (mm)		Special Terminal (4 Pins)	
Code	Series	Code	μF	Code	Tol.	Code	VAC	Code	Type	Code	Type	Code	Style	Code	mm	Code	mm	Code	P1 (mm)
MPBF	MPBF	105	1.0	J	± 5	0250	250	A	AC	B	Bulk	1	SL	27	27.5	B	5.0	F	10.2
		505	5.0	K	± 10	0300	300							37	37.5			2F	12.7
		106	10.0			0350	350							52	52.5			FF	20.3
		256	25.0																
		606	60.0																

Note:

- Capacitance code expressed in pF. The first two digits represent significant figures. The last digit specifies the total number of zeros to be added.
- SL = Straight leads

REFERENCE DATA

Fig. 1 • Capacitance Drift vs. Ambient Temperature

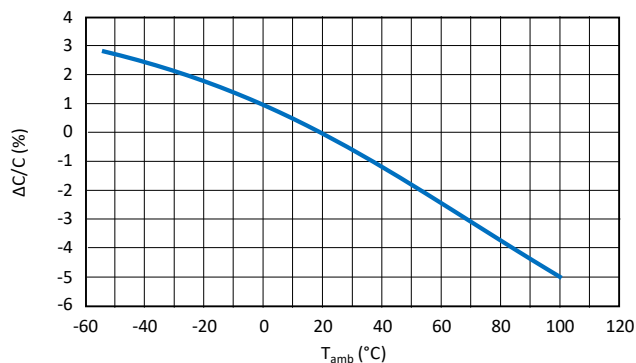
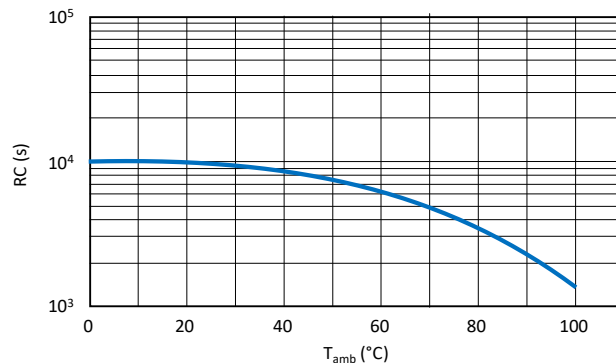


Fig. 2 • Insulation Resistance vs. Ambient Temperature



HEAT CONDUCTIVITY

In order not to exceed the maximum allowed case temperature rise (ΔT), the formula used to calculate the maximum power that may be dissipated by the capacitor is:

Rise of the case temperature in °C:

$$\Delta T = T_{CASE} - T_{AMBIENT}$$

$$\Delta T = \frac{P}{G}$$

With G, the heat conductivity of the capacitor in mW/°C.

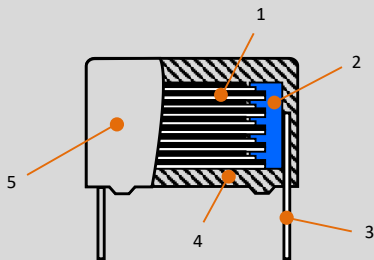
Maximum power that may be dissipated by the capacitor in mW:

$$P = I_{RMS}^2 \cdot ESR$$

The power-dissipation must be limited so that the case-temperature in the application never exceeds 105°C (observing voltage-de-rating).

Dimensions (mm)			G (mW/°C)
W	H	T	
31	18	9	31
31	20	9	36
31	22	11	41
31	24.5	15	46
31	28	18	54
31	33	18	58
31	30.5	20	59
31	31	22	62
31	37	22	68
41.5	35	20	63
41.5	35.5	20.5	68
41.5	39	24	73
41.5	41	27.5	85
41.5	38	28	83
41.5	45	30	93
41.5	45	32	95
58	45	30	95
58	50	35	108
58	53	38	115

TECHNICAL SPECIFICATION

No.	Category	Specification
1	Scope	This specification applies to capacitors for High performance AC filtering applications. Reference standards: IEC 61071 / IEC 60068
2	Product Name	Metallized polypropylene film capacitor, Type MPBF
3	Construction	Dimensions: Refer to dimensions drawing
		
		1 = Element Metallized Polypropylene film
		2 = Metal spray Special solder. (Lead Free) compliant to RoHS directive
		3 = Lead wire Tinned wire. (Lead Free) compliant to RoHS directive
		4 = Inner coating Epoxy resin filled. (UL-94V-0 Standard)
		5 = Outer coating Plastic case. (UL-94V-0 Standard)
4	Atmospheric and Temperature Characteristics	Standard atmospheric conditions. Unless otherwise specified, the standard range of atmospheric conditions for making measurements and tests is as follows:
		Ambient temperature: 15 to 35°C
		Relative humidity 25% to 75%
		Air pressure 86 to 106 kPa
		If there may be any doubt on the results, measurements shall be made within the following limits.
		Ambient temperature: 20°C ± 5°C
		Relative humidity: Below 50%
		Operating temperature range
		Lowest operating temperature: -40°C
		Maximum operating temperature: +105°C (case-temperature) with specified voltage-derating
5	Electrical Characteristics	All data given at an ambient temperature of 23°C ± 1°C and a relative humidity of 50% ± 2%, unless otherwise specified.
		Rated temperature: +85°C
		Up to 85°C; $V_C = V_R$
		Category voltage (V_C): For temperature between +85°C and +105°C, a decreasing factor of 1.5% per degree °C on the nominal voltage V_R must be applied.
		Capacitance range: 1μF to 60μF
		Capacitance tolerance: ±5% (J), ±10% (K), ±20% (M) Measured at 1kHz, 1V
		Self-inductance (L_S) < 1nH per mm of lead spacing

TECHNICAL SPECIFICATION

No.	Category	Specification
5	Electrical Characteristics	Insulation resistance between terminals
		Test conditions:
		Temperature: 20°C ± 5°C
		Voltage charge: 100V _{DC} (V _{NDC} ≤ 500V)
		500V _{DC} (V _{NDC} > 500V)
		Performance: After voltage charge 1 minute > 10GΩ × μF
		Test voltage between terminals
		1.5 × V _{NDC} applied for 10 sec, at 20°C ± 5°C
		Cut off current: 10mA, slow up voltage speed ≤ 100V/sec
		Current limiting resistance of 1Ω/V shall be connected to the test circuit
		Performance: There shall be no dielectric breakdown or other damage
		Test voltage between terminal and case
		2000V _{AC} (50Hz) applied for 10 sec
		Performance: There shall be no flashover or other damage

No.	Category	Specification
6	Mechanical Characteristics	Test Item
		Conditions
		Performance
		Tensile Ua1
		Wire diameter
		Section
		Load
		≤ 0.8mm
		≤ 0.5mm ²
		10N
		≤ 1.25mm
		≤ 1.2mm ²
		20N
		Duration: 10s ± 1s
		Bending Ub methode 1
		Wire diameter
		Section
		Load
		≤ 0.8mm
		≤ 0.5mm ³
		10N
		≤ 1.25mm
		≤ 0.019mm ³
		20N
		4 × 90°; Duration: 2s to 3 s/bend
		10Hz to 55Hz: amplitude ± 0.35mm or acceleration 98m/s ²
		Test duration: 10 frequency cycles, 3 axes offset from each other by 90°
		1 octave/min
		Visual examination
		No visible damage

TECHNICAL SPECIFICATION

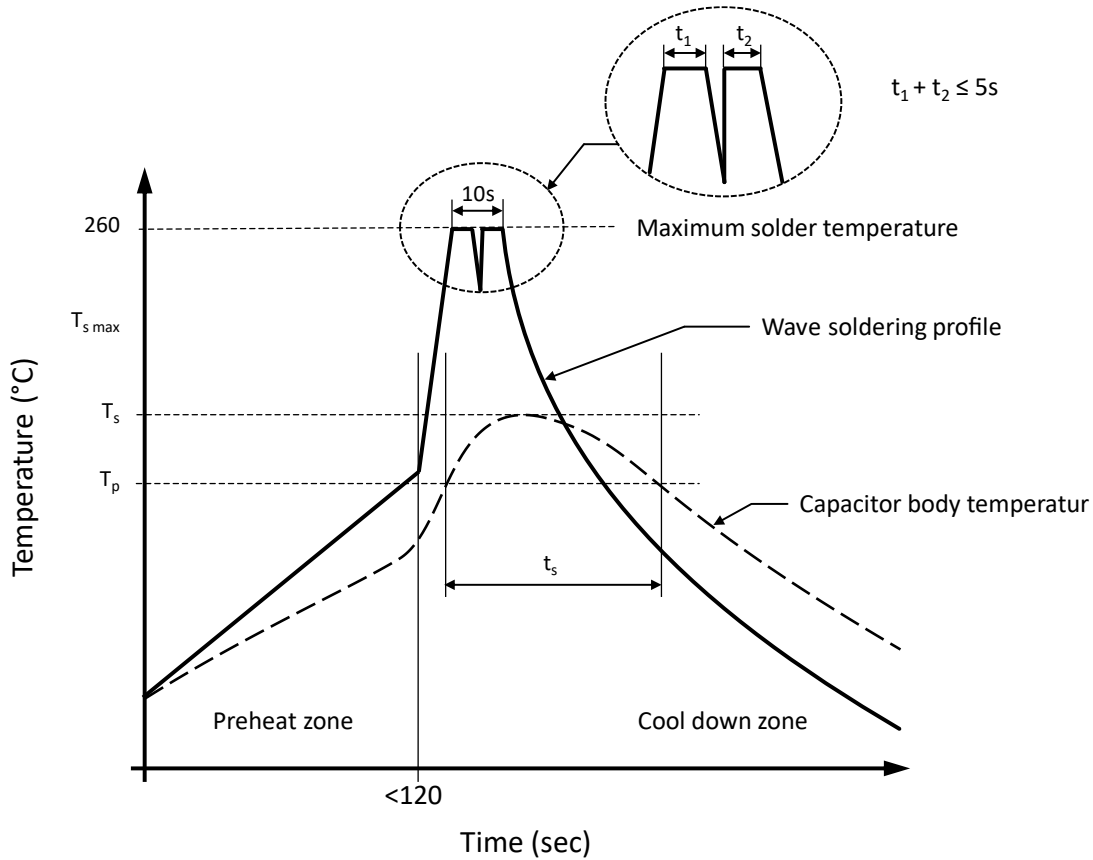
No.	Category	Specification		
		Test Item	Conditions	Performance
7	Endurance Characteristics	Solderability (IEC68-2-20 Ta)	Solder bath: 245°C ± 5°C Immersion time: 2.5±0.5sec Visual examination	At least 95% of the circumferential face of lead wire up to immersed level shall be covered with new solder
		Resistance to soldering heat (IEC 68-2-20Tb)	Solder bath: 260 °C ± 5 °C Immersion time: 10±1sec Thickness of heat shunt (Printed wiring board): 1.6mm Capacitance at 1kHz tan δ at 10kHz	$ \Delta C/C \leq 1\%$ Increase of tan δ ≤ 50 × 10 ⁻⁴
		Voltage test between terminal	1.5 × V _{RDC} at ambient temperature. Duration 60sec Capacitance at 1kHz tan δ at 10kHz	$ \Delta C/C \leq 0.5\%$ Increase of tan δ ≤ 1.2 initial tan δ ₀ + 1×10 ⁻⁴ R insulation ≥ 50 % of specified values
		Surge discharge test	1.1 × V _{NDC} Number of discharges: 5 Time lapse: every 2 min (10min total). Within 5 min after the surge discharge test, the units shall be subjected to a voltage test between terminals Duration 60sec 1.5 × V _{NDC} at ambient temperature. Capacitance at 1kHz tan δ at 10kHz	$ \Delta C/C \leq 1\%$ tan δ ≤ 1.2 initial tan δ ₀ + 1 × 10 ⁻⁴
		Change of temperature (IEC68-2-14) Test Nb	Test Nb T _{MAX} = 85°C T _{MIN} = - 40°C Transition time: 1 h, equivalent to 1°C/min 5 cycles Capacitance at 1kHz tan δ at 10kHz	$ \Delta C/C \leq 2\%$ Increase of tan δ ≤ 150 × 10 ⁻⁴
		Damp heat steady state (IEC68-2-78)	Test Ca T _{MAX} = 40 ± 2°C RH = 93 ± 3 % Duration 56 days 1.5 × V _{NDC} at ambient temperature Duration 60sec Visual examination Capacitance at 1kHz tan δ at 10kHz	No puncturing or flashover Self-healing punctures are permitted. $ \Delta C/C \leq 2.0\%$ Increase of tan δ ≤ 150 × 10 ⁻⁴
		Self-healing test	1.5 × V _{NDC} Duration 10sec Number of clearings ≤ 5 Clearing = voltage drop of 5 % increase the voltage at 100 V/s till 5 clearings occur with a max. of 2.5 × V _{NDC} for a duration of 10sec. Capacitance at 1kHz tan δ at 10kHz	$ \Delta C/C \leq 0.5\%$ tan δ ≤ 1.2 x initial tan δ ₀ + 1 × 10 ⁻⁴

TECHNICAL SPECIFICATION

No.	Category	Specification		
		Test Item	Conditions	Performance
7	Endurance Characteristics	Thermal stability test under overload conditions	Natural cooling $T_{AMB} \pm 5^{\circ}\text{C}$ $1.21 \times P_{MAX}$ $1.1 \times I_{MAX}$ (I_{MAX} see specific reference data) Test duration 48h. Measure the temperature every 1.5h during the last 6 h. Capacitance at 1kHz tan δ at 10kHz	Temperature rise $< 1^{\circ}\text{C}$ $ \Delta C/C \leq 2\%$ Increase of tan $\delta \leq 1.2$ initial tan $\delta_0 + 150 \times 10^{-4}$
		Endurance test between terminals	Sequence $1.25 \times V_{NDC}$ at $T_{MAX} = 85^{\circ}\text{C}$ Duration 500 h $1000 \times$ discharge at $1.4 \times I$ (maximum repetitive peak current in continuous operation) $1.25 \times V_{NDC}$ at $T_{MAX} = 85^{\circ}\text{C}$ Duration 500h Capacitance at 1kHz tan δ at 10kHz	$ \Delta C/C \leq 3\%$ Increase of tan $\delta \leq 150 \times 10^{-4}$
		Destruction test sequence	At $T_{MAX} = 85^{\circ}\text{C}$	No puncturing or flashover Self-healing punctures are permitted
		High DC voltage test	Switch to high DC voltage = $2 \times V_{NDC}$ Duration 5sec	
		High AC voltage test	Switch to high AC voltage = $V_{NDC} / \sqrt{2}$ Duration 5min	
			Repeat destruction sequence 3 times. Visual examination	

No.	Category	Specification
8	Storage conditions	It should be noted that the solderability of the terminals may be deteriorated when stored barely in an atmosphere for a long period.
		It should not be located in particularly high temperature and high humidity, it must submit to the following conditions (Keeping in the original package) Temperature: 5°C to 35°C Relative humidity: $\leq 70\%$ Storage period: ≤ 12 months (Following the manufacturing date marked on the label in package bag)
		Avoid wetting the capacitor by water, oil, salt and/or poisonous gas.
		If used the capacitor that overdue the storage time, it should be test, the characteristics of the capacitor or contact with our technical engineer.

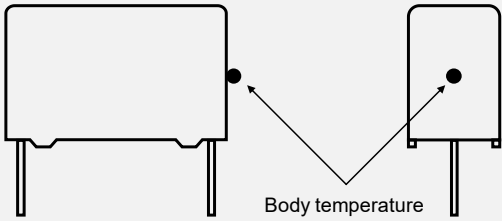
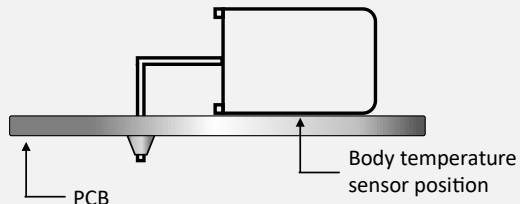
RECOMMENDED WAVE SOLDERING PROFILE ▲ THT PACKAGE



Capacitor body temperature should follow the description below:

Profile Features		Polypropylene Film Capacitor	Polyester Film Capacitor
Capacitor body maximum temperature at preheating	T_p	$\leq 110^\circ\text{C} / 120 \text{ seconds}$	$\leq 125^\circ\text{C} / 120 \text{ seconds}$
Capacitor body maximum temperature at wave soldering	T_s	$\leq 120^\circ\text{C} / t_s \leq 45 \text{ seconds}$	$\leq 150^\circ\text{C} / t_s \leq 45 \text{ seconds}$

DETERMINING THE CAPACITOR BODY TEMPERATURE

Vertical Mounting	Horizontal Mounting
 <p>Body temperature sensor position</p> <p>The body temperature sensor position is defined as the highest temperature point around the capacitor body.</p>	 <p>PCB</p> <p>Body temperature sensor position</p> <p>If there is 90 degree bending product, the sensor position shall between product and PCB</p>

SOLDERING SUGGESTIONS

When solder a capacitor, heat in soldering is conducted to the element of the capacitor from wire lead and an enclosure, and hence it should be noted that soldering under high temperature and a long period may cause deterioration of breakdown of capacitors. Be sure to solder within the recommended temperature condition range.

HAND SOLDERING

- a.) Soldering iron top temperature: $\leq 350^{\circ}\text{C}$
- b.) Soldering time: $\leq 3\text{sec}$

If re-work or dipping twice in necessary, it should be done after the capacitor returned to the normal temperature. Suggestion time is 24 hours.

THT film capacitors are not suitable for reflow soldering.

When SMD components are used together with film capacitor, the film capacitor should not pass into the SMD adhesive curing oven. The film capacitor should be assembled after the SMD process.

In order to ensure proper conditions for manual or selective soldering, the body (surface) temperature of the film capacitor (T_s) must be $\leq 120^{\circ}\text{C}$.

REVISION TABLE

Revision	Date	Status	Notes
001	01/10/2021	Initial release	Initial publication

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It is subject to the user's duty of care to design and validate his products in such a way that appropriate measures are taken, such as protective circuits or redundant systems to ensure the safety standards required in the application.

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