

Plastic Film Capacitors

Metallized Polypropylene Film Capacitor

EZPE series (Low profile type)

Features

- High safety, Self-healing and Self-protecting function built-in
- Long product life, High reliability, High moisture resistance
- Low loss, Low ESR
- Flame retardant (Case and sealing resin)
- Low profile design
- RoHS compliant

Recommended applications

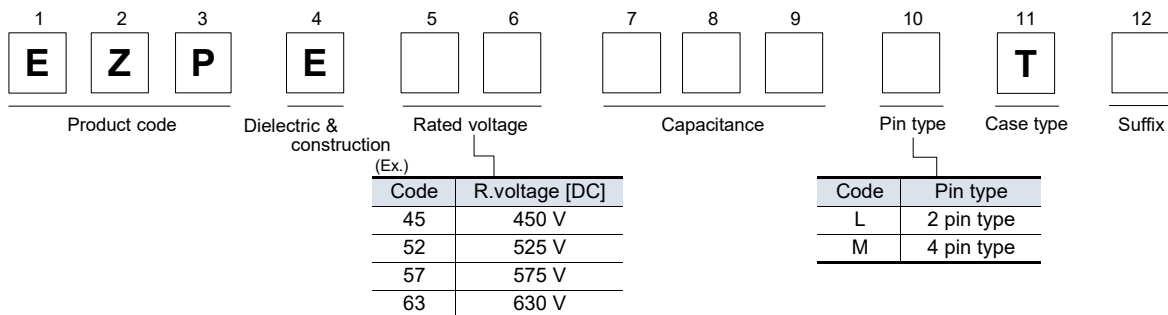
For DC filtering, DC link circuit

- Solar inverters, Micro inverters
- Wind power generation
- Industrial power supplies
- Inverter circuit in appliances (Air Conditioners etc.)

Construction

- Dielectric : Polypropylene film
- Electrodes : Metallized dielectric with segmented pattern
- Plastic case : UL94 V-0
- Sealing : UL94 V-0
- Terminals : Tinned wires, 2-pin and 4-pin versions

Explanation of part number



Specifications

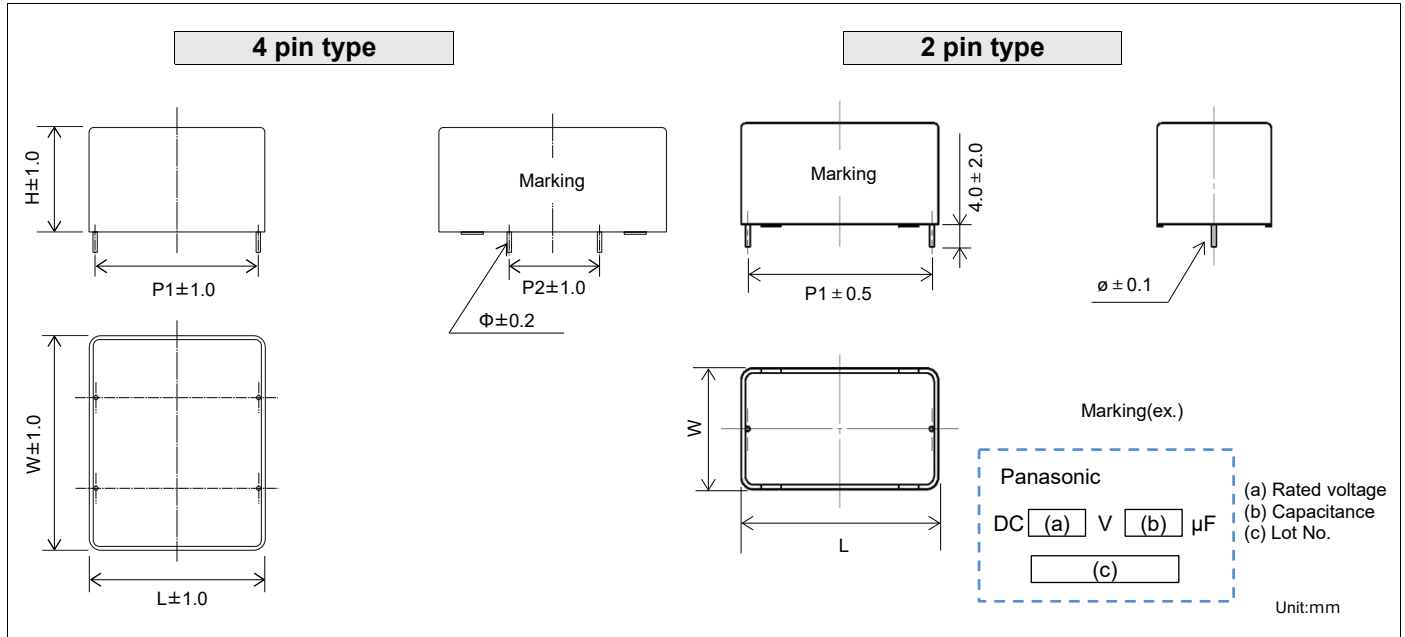
Category temperature range ^{*1}	-40 °C to +85 °C	
Rated voltage ^{*2} [DC]	450 V, 525 V, 575 V, 630 V (Derating of rated voltage by more than 70 °C ^{*3})	
Rated capacitance	450 V	66 μF
	525 V	29 μF
	575 V	12 μF
	630 V	10 μF
Capacitance tolerance	±15 %	
Withstand voltage	Between terminals : Rated voltage (V) × 150 % 10 s	
	Terminal to case : 2000 V [AC] (50 Hz or 60 Hz), 10 s	
Insulation resistanc (IR)	CR ≥ 10,000 Ω·F (20 °C, 500 V [DC], 60 s)	

*1 : The temperature of capacitor surface (case)

*2 : Use for DC voltage only

*3 : Refer to the page of "DC voltage derating"

Dimensions



Rating · Dimensions · Quantity

■ Rated voltage [DC] : 450 V at 70 °C

Part No.	Capacitance (μ F)	Dimensions (mm)						dv/dt [V/ μ s]	Permissible current		ESR ^{*3} (m Ω)	tan δ ^{*4} (%)	Mass (g)	Min. order Q'ty ^{*5} (PCS)
		W	H	L	P1	P2	ϕ		Peak current ^{*1} (A _{o-p})	RMS current ^{*2} (A rms)				
EZPE45666MTB	66	90.0	24.0	32.5	27.5	37.5	0.8	5	300	15.0	5.0	0.3	110	200

■ Rated voltage [DC] : 525 V at 70 °C

Part No.	Capacitance (μ F)	Dimensions (mm)						dv/dt [V/ μ s]	Permissible current		ESR ^{*3} (m Ω)	tan δ ^{*4} (%)	Mass (g)	Min. order Q'ty ^{*5} (PCS)
		W	H	L	P1	P2	ϕ		Peak current ^{*1} (A _{o-p})	RMS current ^{*2} (A rms)				
EZPE52296MTB	29	48.5	23.5	37.0	34.0	20.3	0.8	14	400	3.0	7.0	0.4	50	400

■ Rated voltage [DC] : 575 V at 70 °C

Part No.	Capacitance (μ F)	Dimensions (mm)						dv/dt [V/ μ s]	Permissible current		ESR ^{*3} (m Ω)	tan δ ^{*4} (%)	Mass (g)	Min. order Q'ty ^{*5} (PCS)
		W	H	L	P1	P2	ϕ		Peak current ^{*1} (A _{o-p})	RMS current ^{*2} (A rms)				
EZPE57126LTB	12	24.5	19.5	41.5	37.5	—	1.0	22	264	5.0	22.0	0.45	25	800

■ Rated voltage [DC] : 630 V at 70 °C

Part No.	Capacitance (μ F)	Dimensions (mm)						dv/dt [V/ μ s]	Permissible current		ESR ^{*3} (m Ω)	tan δ ^{*4} (%)	Mass (g)	Min. order Q'ty ^{*5} (PCS)
		W	H	L	P1	P2	ϕ		Peak current ^{*1} (A _{o-p})	RMS current ^{*2} (A rms)				
EZPE63106LTB	10	24.5	19.5	41.5	37.5	—	1.0	21	210	3.0	22.0	0.45	25	800

*1 : When rising temperature of capacitor surface by continuous peak current (included pulse current), use within limit specified for temperature of capacitor surface and self heating temperature rise.

*2 : Maximum RMS current @70 °C, 10 kHz
Use within limit for self heating temperature rise at capacitor surface.

*3 : Typical values @ 20 °C, 10 kHz ESR : less than 2.5×ESR typ

*4 : Maximum dissipation factor @ 20 °C, 1 kHz

*5 : Minimum order quantity consists of 4 packing units.

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PRECAUTION AND WARNING

- Please consult us in case that demand the specification of our company without fail and do the confirmation of the use condition and that exceeds the entry value and be indistinct when you use it.
- The film capacitors contain a film based dielectric which may be flammable under certain operating conditions. When in use, they can either emit smoke and/or ignite should the product be defective. It is recommended covering the surrounding resin with flame-resistant materials or case as needed particularly.
- In the event of troubles of other parts on the circuit such as shortening and opening, provide with proper means for preventing excessive voltage, current or temperature exceeding the rating from being applied to the film capacitor.
- Prior to use, please make sure that failure of the film capacitors does not have any negative effects on other preventing electronic circuit components and devices that would possibly cause damage. Take safety measures, such as fail-safe functions (e.g., protection circuits), as necessary to prevent a film capacitor failure from directly or indirectly leading to an unstable state of the equipment (e.g., conditions a through c as stated below).
Example:
 - a . State in which basic performance of automobiles (run, turn and stop)
 - b . False operations
 - c . Smoke emission/ignitions
- The Film Capacitor listed in this catalog(except for automotive series) are designed and manufactured specifically for general electronic devices, including audio-video equipment, home appliance, office equipment and data communication equipment etc.. Accordingly, it is strongly recommended that the user contact us in advance if the parts are to be used for the following devices(items 1 -12), which require having advanced security measures.
The capacitor for automotive can be used for automobiles such as xEV.
 - (1) Transport equipment (motor vehicles, airplanes, trains, ships, traffic signal controllers)
 - (2) Medical equipment (life-support equipment, pacemakers for the heart, dialysis controllers)
 - (3) Aircraft equipment, Aerospace Equipment (airplanes, artificial satellites, rockets, etc.)
 - (4) Submarine equipment (submarine repeating equipment, etc.)
 - (5) Generation control equipment (equipment for atomic/hydraulic/heat power plants)
 - (6) Information processing equipment (large scale computer system)
 - (7) Electric heating appliance, Burning apparatus
 - (8) Rotary motion equipment
 - (9) Security systems
 - (10) Robots
 - (11) Lighting equipment
 - (12) And any similar types of equipment
- If used in a specific appliance that requires an extremely high reliability directly relating with any life-supporting equipment like electronic aviation controllers, automotive driving controllers and engine controllers, please consult us and use within the conditions designated in the specification. However the chip type capacitor should not be used in these appliances.

Note:

1. Technical information in this catalog is intended to convey examples of typical performances and/or applications, and is not intended to convey patents rights, if any.
2. For the products, which are controlled items subject to the Foreign Exchange and Foreign Trade Control Law, the export permission according to the Law is necessary.
3. Note of ozone depleting substances of class1 (ODS) under the Montreal Protocol is used in manufacturing process of Device Solutions Business Division, Panasonic Industry Co., Ltd.

■ AEC-Q200 compliant

The products are tested based on all or part of the test conditions and methods defined in AEC-Q200. Please consult with Panasonic for the details of the product specification and specific evaluation test results, etc., make sure to exchange product specifications for each product when placing an order.

* Intellectual property right

We, Panasonic Group are providing the product and service that customers can use without anxiety, working positively on the protection of our products under intellectual property rights.

Representative patents relating to xEV Film capacitors are as follows :

US Paten No.7027286, No.8315031, No.8861177, No.9240279, No.10475585
JP Patent No.4784464, No.4930099, No.4946618, No.5391797