Metallized Polypropylene Film Capacitors

Type: 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
- ●RoHS directive compliant
- ●Low profile design

■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 Numbers

1	2	3	4	5	6	7	8	9	10	11	12
E	Z	P	E							T	
Product code			Dielectric & construction	Rated voltage		Capacitance			Pin type	Suffix	Suffix

(Ex.)

45	450 VDC
52	525 VDC

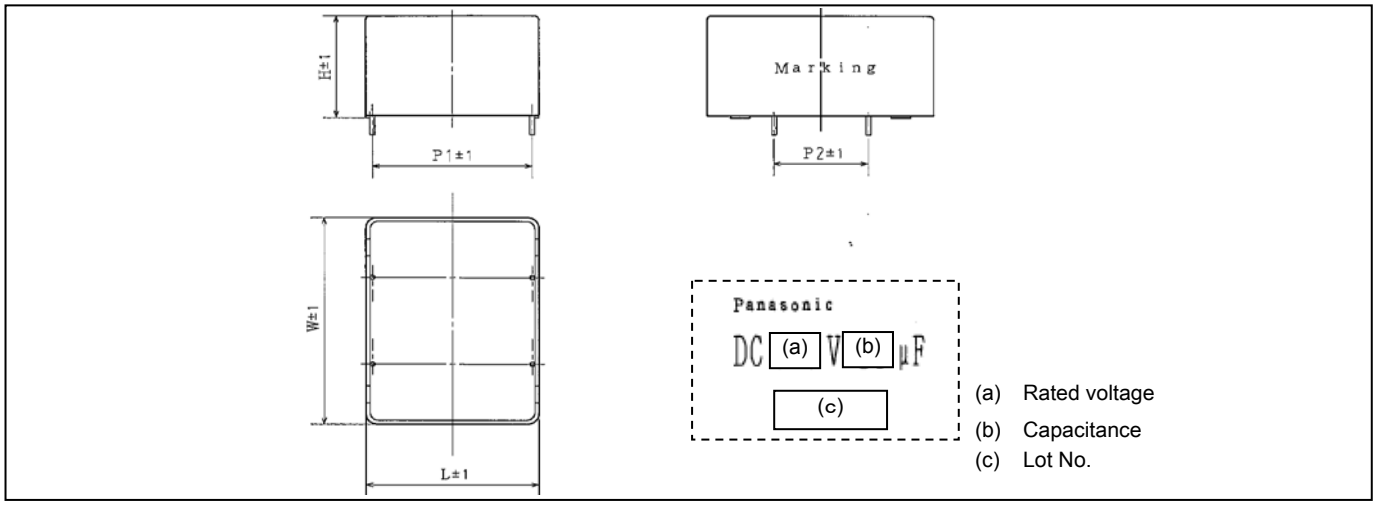
L	2-pin type
M	4-pin type

■Specifications

Category temperature range (T_C) (*1)	–40 °C to +85 °C	
Rated voltage(V_R) (*2)	450 VDC , 525 VDC (Derating of rated voltage by more than 70 °C (*3))	
Rated capacitance (CR)	450 VDC	66 µF
	525 VDC	29 µF
Capacitance tolerance	±15 %	
Withstanding DC voltage	Between terminals : Rated voltage. (VDC)×150 % 10 s Terminal to case: 2 000 VAC (50 Hz or 60 Hz) 10 s	
Insulation resistance (CR)	CR ≧ 10 000 Ω･F (20 °C, 500 VDC, 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 in mm (not to scale)



(a) Rated voltage
(b) Capacitance
(c) Lot No.

■Rating, Dimensions & Quantity / Ammo Box

●Type EZPE Rated voltage : 450 VDC at 70 ℃

Part No.	CR. (μF)	Dimensions [mm]						dv/dt [V/μs]	Permissible current		ESR$_{typ}$ [mΩ] (※3)	Tanδ [%] (※4)	Mass [g]	MOQ [pcs] (※5)
		W	H	L	P1	P2	φ		Peak Current [A_{o-p}] (※1)	RMS Current [A_{rms}] (※2)				
EZPE45666MTB	66	90.0	24.0	32.5	27.5	37.5	0.8	5	300	15.0	5.0	0.3	110	200

●Type EZPE Rated voltage : 525 VDC at 70 ℃

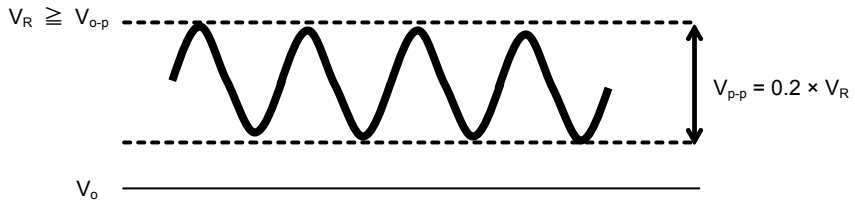
Part No.	CR. (μF)	Dimensions [mm]						dv/dt [V/μs]	Permissible current		ESR$_{typ}$ [mΩ] (※3)	Tanδ [%] (※4)	Mass [g]	MOQ [pcs] (※5)
		W	H	L	P1	P2	φ		Peak Current [A_{o-p}] (※1)	RMS Current [A_{rms}] (※2)				
EZPE52296MTB	29	48.5	23.5	37.0	34.0	20.3	0.8	14	400	3.0	7.0	0.4	50	400

*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 ℃, 10 kHz
Use within limit for self heating temperature rise at capacitor surface.
*3: Typical values @ 20 ℃, 10 kHz ESR : less than 2.5 × ESRtyp
*4: Maximum dissipation factor @20 ℃, 1 kHz
*5: Minimum order quantity consists of 4 packing units.

■Permissible Conditions

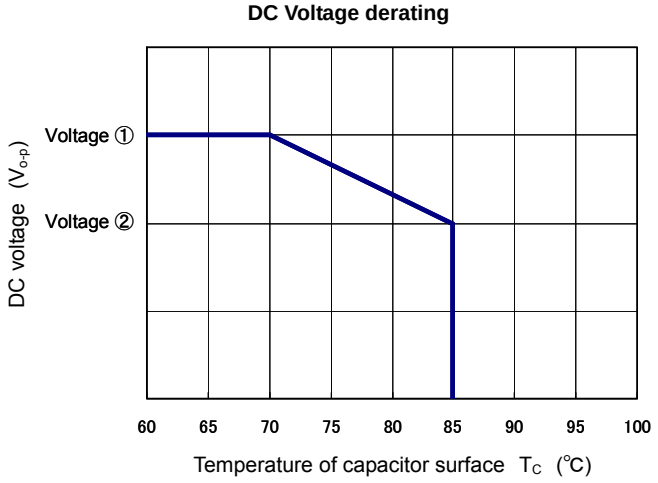
●Permissible Voltage

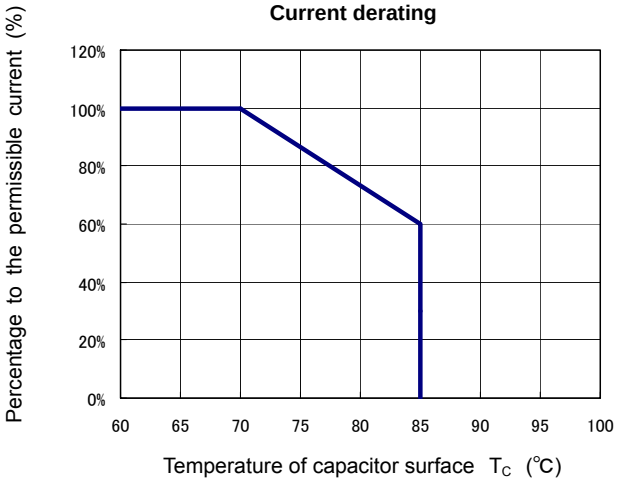
- These capacitors are designed only for DC voltage, so should not be used for AC line.
- Use the peak voltage ($V_{o\text{-}p}$) within the rated voltage.
- Use the peak to peak voltage ($V_{p\text{-}p}$) within 0.2 x V_R



●DC Voltage, Peak current and RMS current derating

Derating of voltage ($V_{o\text{-}p}$), RMS current (A_{rms}), and peak current ($A_{o\text{-}p}$) according to the following diagram, when the temperature of the capacitor surface exceeds 70℃.
Please refer to the approval sheet for DC voltage, RMS current, and Peak current.



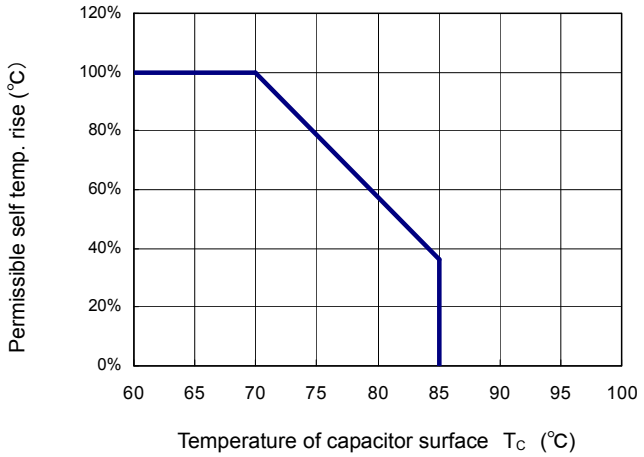


Ex. DC voltage

Voltage ①	Voltage ②
450VDC	400VDC
525VDC	450VDC

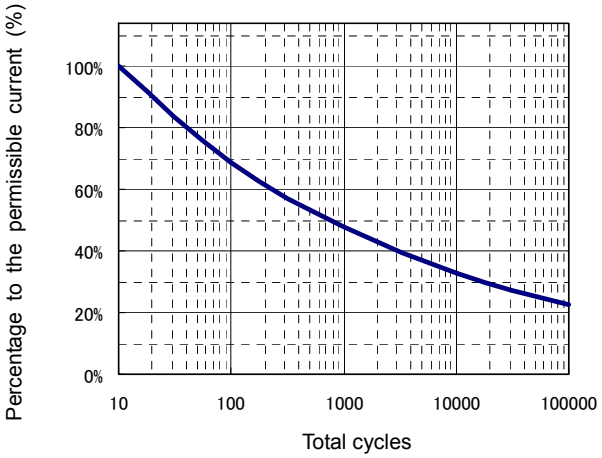
●Permissible self heating temperature rise

Permissible self heating temperature rise is Within following diagram when the temperature of the capacitor surface exceeds 70℃.



●Total cycles applied current

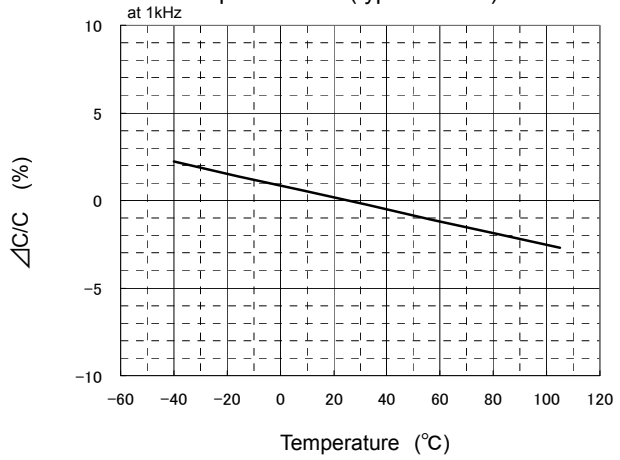
Total cycles applied peak current ($A_{o\text{-}p}$) (including pulse current) are within following diagram.



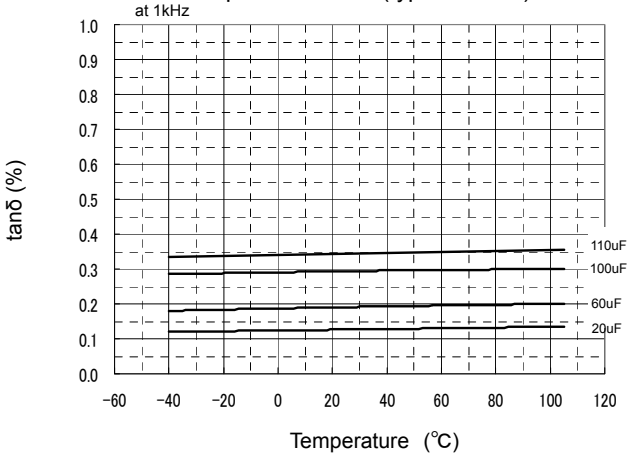
■Characteristics ＜Reference＞

●Temperature Characteristics

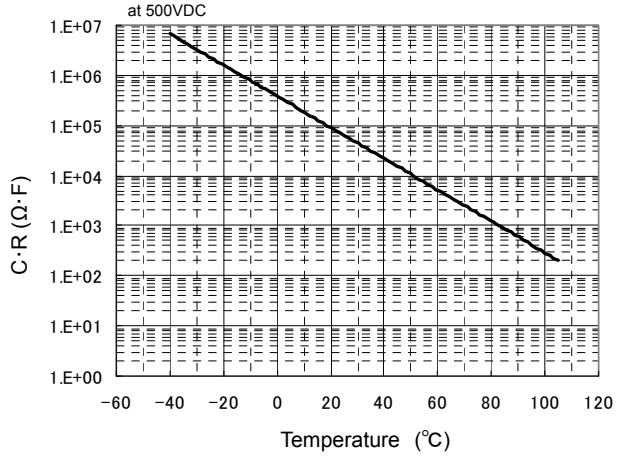
Capacitance (typical curve)



Dissipation factor (typical curve)



Insulation resistance (typical curve)



●Frequency Characteristics

Impedance vs. Frequency (typical curve)