

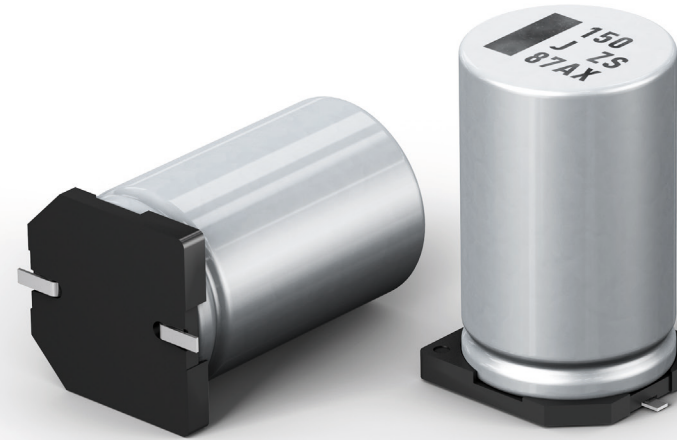
CONDUCTIVE POLYMER HYBRID ALUMINUM ELECTROLYTIC CAPACITORS

Panasonic
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ZS-SERIES: SIXTH SERIES LAUNCHED TO CATER DEMANDING AUTOMOTIVE APPLICATIONS

ZS-Series Added Value

- Highest capacitance in class: 100 to 560 μ F
- Ripple current ratings up to 4 Arms
- ESR as low as 11m Ω
- Temperature range: -55 $^{\circ}$ C to 125 $^{\circ}$ C
- Size: \varnothing 10 x 16.5mm (released), \varnothing 10 x 12.5mm (under development)



Size/Specifications		Rated Voltage			
		25V	35V	50V	63V
\varnothing 10 x 12.5*	Cap. [μ F]	470	330	150	100
	ESR [m Ω]	14	14	17	19
	Ripple [mA] @125 $^{\circ}$ C	3,500	3,500	3,200	3,000
\varnothing 10 x 16.5	Cap. [μ F]	560	470	220	150
	ESR [m Ω]	11	11	13	15
	Ripple [mA] @125 $^{\circ}$ C	4,000	4,000	3,700	3,500

*Size \varnothing 10 x 12.5mm is under development. (Release Target: April, 2020)
Engineering sample: Available

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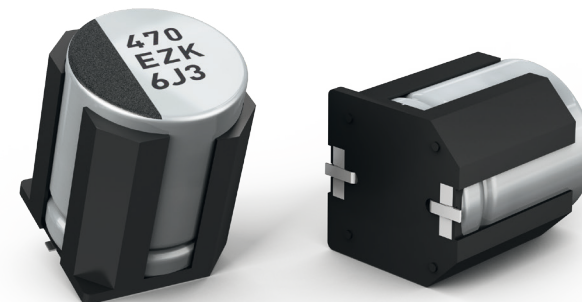
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PRODUCT LINE-UP OF HYBRID CAPACITOR

	ZA	ZC	ZK	ZKU <small>NEW</small>	ZS	ZE	ZF
Endurance	105°C 10,000h	125°C 4,000h	125°C 4,000h	125°C 4,000h	125°C 4,000h	145°C 2,000h	150°C 1,000h
Rated Voltage [V DC]	25 – 80	25 – 80	25 – 35	25 – 35	25 – 63	25 – 63	25 – 63
Rated Capacitance [μ F]	10 – 330	10 – 330	33 – 470	39 – 560	150 – 560	33 – 330	33 – 270
E S R [m Ω]	20 – 120	20 – 120	20 – 100	20 – 100	11 – 15	20 – 40	20 – 40
Ripple Current [Arms@Peak Temperature]	0.75 – 2.5	0.5 – 2	0.75 – 2.8	0.75 – 2.8	3.5 – 4	0.6 – 0.9	0.65 – 1
Leakage Current	0.01 CV						
Damp Heat	85°C 85% RH 2,000 h						

Anti-vibration SMD Capacitors

Specification	
Acceleration	294m/S ² (30G)
Frequency [Hz]	5~2000
Amplitude [mm]	max. 5 (peak to peak)
Direction and Duration of Vibration	X, Y, Z axes for 2 hours each



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 Panasonic capacitor portfolio,
 please also visit industrial.panasonic.com