

KZN Series

- Adoption of innovative high stability electrolyte
- High ripple current and long endurance
- Rated voltage range : 6.3 to 100V_{dc}, Capacitance range : 8.2 to 22,000μF
- Endurance with ripple current : 6,000 to 10,000 hours at 105°C
- Non solvent resistant type
- RoHS Compliant

KZN

Higher ripple
KZM P158



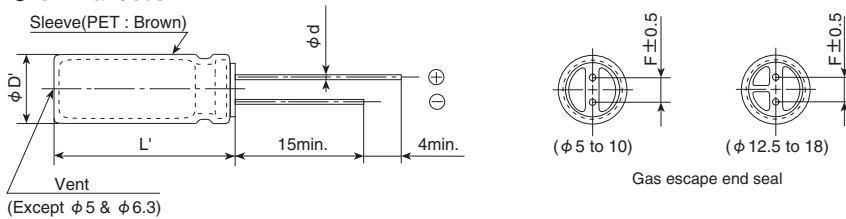
◆ SPECIFICATIONS

Items	Characteristics										
Category Temperature Range	-40 to +105°C										
Rated Voltage Range	6.3 to 100V _{dc}										
Capacitance Tolerance	±20% (M) (at 20°C, 120Hz)										
Leakage Current	I=0.01CV or 3μA, whichever is greater. Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) (at 20°C after 2 minutes)										
Dissipation Factor (tan δ)	Rated voltage (V _{dc})	6.3V	10V	16V	25V	35V	50V	63V	80V	100V	
	tan δ (Max.)	0.22	0.19	0.16	0.14	0.12	0.10	0.09	0.09	0.08	
	When nominal capacitance exceeds 1,000μF, add 0.02 to the value above for each 1,000μF increase. (at 20°C, 120Hz)										
Low Temperature Characteristics	Z(-25°C)/Z(+20°C) 3 max. (at 120Hz)										
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20°C after subjected to DC voltage with the rated ripple current is applied (the peak voltage shall not exceed the rated voltage) for the specified period of time at 105°C.										
	Time	Case size	φ 5 & φ 6.3	φ 8 × 11.5L	φ 10 × 12.5L	φ 8 × 15L, 20L	φ 10 × 16L, 20L, 25L φ 12.5 to φ 18				
		6.3V _{dc}	6,000 hours	8,000 hours	9,000 hours	9,000 hours	10,000 hours				
		10 to 50V _{dc}	7,000 hours	9,000 hours	9,000 hours	10,000 hours	10,000 hours				
	63 to 100V _{dc}	6,000 hours	8,000 hours	9,000 hours	9,000 hours	10,000 hours					
	Capacitance change	≤ ±25% of the initial value (6.3, 10V _{dc} : ≤ ±30%)									
D.F. (tan δ)	≤ 200% of the initial specified value										
Leakage current	≤ The initial specified value										
Shelf Life	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 500 hours at 105°C without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to Item 4.1 of JIS C 5101-4.										
	Capacitance change	≤ ±25% of the initial value (6.3, 10V _{dc} : ≤ ±30%)									
	D.F. (tan δ)	≤ 200% of the initial specified value									
	Leakage current	≤ The initial specified value									

◆ DIMENSIONS [mm]

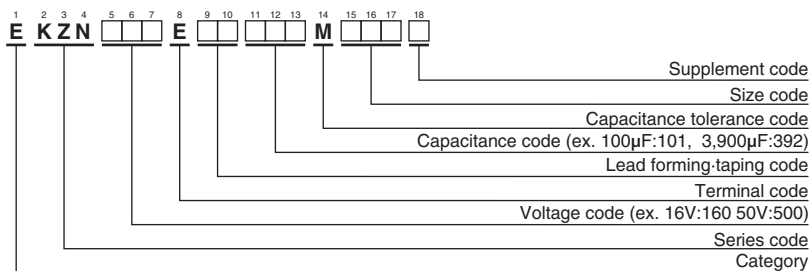
- Terminal Code : E

Sleeve(PET : Brown)



φ D	5	6.3	8	10	12.5	16	18
φ d	0.5	0.5	0.6	0.6	0.6	0.8	0.8
F	2.0	2.5	3.5	5.0	5.0	7.5	7.5
D'	φ D + 0.5max.						
L'	L + 1.5max.						

◆ PART NUMBERING SYSTEM



Please refer to "Product code guide (radial lead type)"

◆ STANDARD RATINGS

WV (V _{dc})	Cap (μF)	Case size φD×L(mm)	Impedance (Ω max./100kHz)		Rated ripple current (mA rms/105°C, 100kHz)	Part No.	WV (V _{dc})	Cap (μF)	Case size φD×L(mm)	Impedance (Ω max./100kHz)		Rated ripple current (mA rms/105°C, 100kHz)	Part No.	
			20°C	-10°C						20°C	-10°C			
6.3	220	5×11	0.38	1.2	345	EKZN6R3E□□221ME11D	16	3,300	12.5×30	0.018	0.054	3,660	EKZN160E□□332MK30S	
	470	6.3×11	0.17	0.51	540	EKZN6R3E□□471MF11D		3,900	12.5×35	0.016	0.048	4,120	EKZN160E□□392MK35S	
	820	8×11.5	0.075	0.23	945	EKZN6R3E□□821MHB5D		3,900	16×20	0.021	0.063	3,330	EKZN160E□□392ML20S	
	1,200	8×15	0.059	0.18	1,250	EKZN6R3E□□122MH15D		4,700	18×20	0.020	0.060	3,450	EKZN160E□□472MM20S	
	1,200	10×12.5	0.053	0.16	1,330	EKZN6R3E□□122MJC5S		5,600	16×25	0.017	0.051	3,810	EKZN160E□□562ML25S	
	1,500	8×20	0.041	0.13	1,500	EKZN6R3E□□152MH20D		6,800	16×31.5	0.016	0.048	4,100	EKZN160E□□682MLN3S	
	1,800	10×16	0.038	0.12	1,760	EKZN6R3E□□182MJ16S		6,800	18×25	0.016	0.048	3,880	EKZN160E□□682MM25S	
	2,700	10×20	0.028	0.084	1,960	EKZN6R3E□□272MJ20S		8,200	16×35.5	0.014	0.042	4,280	EKZN160E□□822MLP1S	
	2,700	12.5×16	0.035	0.11	1,900	EKZN6R3E□□272MK16S		8,200	18×31.5	0.014	0.042	4,190	EKZN160E□□822MMN3S	
	3,300	10×25	0.026	0.072	2,250	EKZN6R3E□□332MJ25S		10,000	16×40	0.013	0.039	4,580	EKZN160E□□103ML40S	
	3,900	12.5×20	0.025	0.075	2,480	EKZN6R3E□□392MK20S		10,000	18×35.5	0.012	0.036	4,380	EKZN160E□□103MMP1S	
	5,600	12.5×25	0.019	0.057	2,900	EKZN6R3E□□562MK25S		12,000	18×40	0.011	0.033	4,960	EKZN160E□□123MM40S	
	6,800	12.5×30	0.018	0.054	3,450	EKZN6R3E□□682MK30S		25	68	5×11	0.38	1.2	450	EKZN250E□□680ME11D
	6,800	16×20	0.021	0.063	3,250	EKZN6R3E□□682ML20S			150	6.3×11	0.17	0.51	700	EKZN250E□□151MF11D
	8,200	12.5×35	0.016	0.048	3,570	EKZN6R3E□□822MK35S			270	8×11.5	0.075	0.23	1,200	EKZN250E□□271MHB5D
	8,200	18×20	0.020	0.060	3,450	EKZN6R3E□□822MM20S			470	8×15	0.059	0.18	1,600	EKZN250E□□471MH15D
	10,000	16×25	0.017	0.051	3,630	EKZN6R3E□□103ML25S			470	10×12.5	0.053	0.16	1,700	EKZN250E□□471MJC5S
	12,000	16×31.5	0.016	0.048	4,100	EKZN6R3E□□123MLN3S			560	8×20	0.041	0.13	1,960	EKZN250E□□561MH20D
	12,000	18×25	0.016	0.048	3,880	EKZN6R3E□□123MM25S			680	10×16	0.038	0.12	2,000	EKZN250E□□681MJ16S
	15,000	16×35.5	0.014	0.042	4,280	EKZN6R3E□□153MLP1S			820	10×20	0.028	0.084	2,500	EKZN250E□□821MJ20S
	15,000	18×31.5	0.014	0.042	4,190	EKZN6R3E□□153MMN3S			1,000	12.5×16	0.035	0.11	2,400	EKZN250E□□102MK16S
	18,000	16×40	0.013	0.039	4,580	EKZN6R3E□□183ML40S			1,200	10×25	0.026	0.072	2,900	EKZN250E□□122MJ25S
18,000	18×35.5	0.012	0.036	4,380	EKZN6R3E□□183MMP1S	1,500	12.5×20		0.025	0.075	2,600	EKZN250E□□152MK20S		
22,000	18×40	0.011	0.033	4,960	EKZN6R3E□□223MM40S	1,800	12.5×25		0.019	0.057	3,200	EKZN250E□□182MK25S		
10	150	5×11	0.38	1.2	450	EKZN100E□□151ME11D	2,200		12.5×30	0.018	0.054	3,660	EKZN250E□□222MK30S	
	330	6.3×11	0.17	0.51	700	EKZN100E□□331MF11D	2,200		16×20	0.021	0.063	3,330	EKZN250E□□222ML20S	
	560	8×11.5	0.075	0.23	1,200	EKZN100E□□561MHB5D	2,700		12.5×35	0.016	0.048	4,120	EKZN250E□□272MK35S	
	820	8×15	0.059	0.18	1,600	EKZN100E□□821MH15D	3,300		16×25	0.017	0.051	3,810	EKZN250E□□332ML25S	
	1,000	8×20	0.041	0.13	1,960	EKZN100E□□102MH20D	3,300		18×20	0.020	0.060	3,450	EKZN250E□□332MM20S	
	1,000	10×12.5	0.053	0.16	1,700	EKZN100E□□102MJC5S	4,700		16×31.5	0.016	0.048	4,100	EKZN250E□□472MLN3S	
	1,200	10×16	0.038	0.12	2,000	EKZN100E□□122MJ16S	4,700		18×25	0.016	0.048	3,880	EKZN250E□□472MM25S	
	1,800	10×20	0.028	0.084	2,500	EKZN100E□□182MJ20S	5,600		16×35.5	0.014	0.042	4,280	EKZN250E□□562MLP1S	
	1,800	12.5×16	0.035	0.11	2,400	EKZN100E□□182MK16S	5,600		18×31.5	0.014	0.042	4,190	EKZN250E□□562MMN3S	
	2,200	10×25	0.026	0.072	2,900	EKZN100E□□222MJ25S	6,800		16×40	0.013	0.039	4,580	EKZN250E□□682ML40S	
	2,700	12.5×20	0.025	0.075	2,600	EKZN100E□□272MK20S	6,800	18×35.5	0.012	0.036	4,380	EKZN250E□□682MMP1S		
	3,900	12.5×25	0.019	0.057	3,200	EKZN100E□□392MK25S	8,200	18×40	0.011	0.033	4,960	EKZN250E□□822MM40S		
	4,700	12.5×30	0.018	0.054	3,660	EKZN100E□□472MK30S	35	47	5×11	0.38	1.2	450	EKZN350E□□470ME11D	
	4,700	16×20	0.021	0.063	3,330	EKZN100E□□472ML20S		100	6.3×11	0.17	0.51	700	EKZN350E□□101MF11D	
	5,600	12.5×35	0.016	0.048	4,120	EKZN100E□□562MK35S		180	8×11.5	0.075	0.23	1,200	EKZN350E□□181MHB5D	
	5,600	18×20	0.020	0.060	3,450	EKZN100E□□562MM20S		220	8×15	0.059	0.18	1,600	EKZN350E□□221MH15D	
	6,800	16×25	0.017	0.051	3,810	EKZN100E□□682ML25S		270	10×12.5	0.053	0.16	1,700	EKZN350E□□271MJC5S	
	8,200	16×31.5	0.016	0.048	4,100	EKZN100E□□822MLN3S		330	8×20	0.041	0.13	1,960	EKZN350E□□331MH20D	
	8,200	18×25	0.016	0.048	3,880	EKZN100E□□822MM25S		390	10×16	0.038	0.12	2,000	EKZN350E□□391MJ16S	
	10,000	16×35.5	0.014	0.042	4,280	EKZN100E□□103MLP1S		470	10×20	0.028	0.084	2,500	EKZN350E□□471MJ20S	
	10,000	18×31.5	0.014	0.042	4,190	EKZN100E□□103MMN3S		560	12.5×16	0.035	0.11	2,400	EKZN350E□□561MK16S	
	12,000	16×40	0.013	0.039	4,580	EKZN100E□□123ML40S		680	10×25	0.026	0.072	2,900	EKZN350E□□681MJ25S	
12,000	18×35.5	0.012	0.036	4,380	EKZN100E□□123MMP1S	820		12.5×20	0.025	0.075	2,600	EKZN350E□□821MK20S		
15,000	18×40	0.011	0.033	4,960	EKZN100E□□153MM40S	1,200		12.5×25	0.019	0.057	3,200	EKZN350E□□122MK25S		
16	120	5×11	0.38	1.2	450	EKZN160E□□121ME11D		1,500	12.5×30	0.018	0.054	3,660	EKZN350E□□152MK30S	
	270	6.3×11	0.17	0.51	700	EKZN160E□□271MF11D		1,500	16×20	0.021	0.063	3,330	EKZN350E□□152ML20S	
	470	8×11.5	0.075	0.23	1,200	EKZN160E□□471MHB5D		1,800	12.5×35	0.016	0.048	4,120	EKZN350E□□182MK35S	
	680	8×15	0.059	0.18	1,600	EKZN160E□□681MH15D		1,800	16×25	0.017	0.051	3,810	EKZN350E□□182ML25S	
	680	10×12.5	0.053	0.16	1,700	EKZN160E□□681MJC5S		1,800	18×20	0.020	0.060	3,450	EKZN350E□□182MM20S	
	820	8×20	0.041	0.13	1,960	EKZN160E□□821MH20D		2,700	16×31.5	0.016	0.048	4,100	EKZN350E□□272MLN3S	
	1,000	10×16	0.038	0.12	2,000	EKZN160E□□102MJ16S		2,700	18×25	0.016	0.048	3,880	EKZN350E□□272MM25S	
	1,500	10×20	0.028	0.084	2,500	EKZN160E□□152MJ20S		3,300	16×35.5	0.014	0.042	4,280	EKZN350E□□332MLP1S	
	1,500	12.5×16	0.035	0.11	2,400	EKZN160E□□152MK16S		3,300	18×31.5	0.014	0.042	4,190	EKZN350E□□332MMN3S	
	1,800	10×25	0.026	0.072	2,900	EKZN160E□□182MJ25S		3,900	16×40	0.013	0.039	4,580	EKZN350E□□392ML40S	
	2,200	12.5×20	0.025	0.075	2,600	EKZN160E□□222MK20S	3,900	18×35.5	0.012	0.036	4,380	EKZN350E□□392MMP1S		
	2,700	12.5×25	0.019	0.057	3,200	EKZN160E□□272MK25S	4,700	18×40	0.011	0.033	4,960	EKZN350E□□472MM40S		

□ □ : Enter the appropriate lead forming or taping code.

