MINIATURE ALUMINUM ELECTROLYTIC CAPACITORS



- For LED light circuits and other long life applications
- $\ensuremath{\bullet}$ Rated voltage range : 160 to 450 Vdc , Capacitance range : 5.6 to $68\mu F$
- Endurance with ripple current: 15,000 to 20,000 hours at 105°C
- Non solvent resistant type
- RoHS Compliant



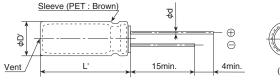


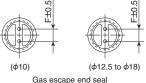
SPECIFICATIONS

Items	Characteristics					
Category Temperature Range	-40 to +105℃					
Rated Voltage Range	160 to 450V _{dc}					
Capacitance Tolerance	±20% (M) (at 20°C, 120Hz)					
Leakage Current	After 1 minute	After 5 minutes				
	I=0.04CV+100	I=0.02CV+2	5			
	Where, I: Max. leakage of	. leakage current (μA), C: Nominal capacitance (μF), V: Rated voltage (V) (at 20°C)				
Dissipation Factor	Rated voltage (V _{dc})	160 to 450V				
(tan δ)	tan δ (Max.)	0.24			(at 20℃, 120Hz)	
Low Temperature	Rated voltage (V _{dc})	160 to 250V	400, 450V			
Characteristics	Z(-25°C)/Z(+20°C)	3	6			
(Max. Impedance Ratio)	Z(-40°C)/Z(+20°C)	8	10		(at 120Hz)	
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20°C after subjected to DC voltage with the ripple current is applied (the peak voltage shall not exceed the rated voltage) for 20,000 hours (15,000 hours for φ 10×12.5) 105°C.					
	Capacitance change	≦±30% of	the initial valu	ie		
	D.F. (tan δ)	≦300% of the initial specified value				
	Leakage current	≦The initial	≦The initial specified value			
Shelf Life	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000 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	≦±30% of the initial value		ie		
	D.F. (tan δ)	≦300% of t	% of the initial specified value			
	Leakage current	≦500% of t	he initial spec	ified value		

◆DIMENSIONS [mm]

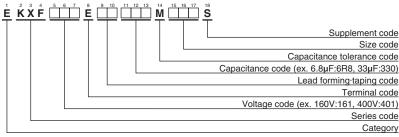
●Terminal Code: E





φD	10	12.5	16	18
φd	0.6	0.6	0.8	0.8
F	5.0	5.0	7.5	7.5
φD'	φD+0.5max.			
L'	L+1.5max.			

◆PART NUMBERING SYSTEM



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

◆RATED RIPPLE CURRENT MULTIPLIERS

Frequency Multipliers

Capacitance(μF) Frequency(Hz)	120	1k	10k	100k
5.6 ~ 68	1.00	1.75	2.25	2.50

The endurance of capacitors is reduced with internal heating produced by ripple current at the rate of halving the lifetime with every 5°C rise. When long life performance is required in actual use, the rms ripple current has to be reduced.

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STANDARD RATINGS

WV (Vdc)	Cap (µF)	Case size φD×L(mm)	tan δ	Rated ripple current (mArms/105°C, 120Hz)	Part No.
160	22	10 × 12.5	0.24	121	EKXF161E□□220MJC5S
	33	10 × 16	0.24	158	EKXF161E□□330MJ16S
200	18	10 × 12.5	0.24	113	EKXF201E□□180MJC5S
	27	10×16	0.24	149	EKXF201E□□270MJ16S
250	10	10 × 12.5	0.24	90	EKXF251E□□100MJC5S
	12	10 × 12.5	0.24	97	EKXF251E□□120MJC5S
	18	10×16	0.24	129	EKXF251E□□180MJ16S
400	5.6	10 × 12.5	0.24	64	EKXF401E□□5R6MJC5S
	8.2	10×16	0.24	88	EKXF401E□□8R2MJ16S
450	6.8	10×16	0.24	62	EKXF451E□□6R8MJ16S
	8.2	10×16	0.24	88	EKXF451E□□8R2MJ16S
	10	10 × 20	0.24	92	EKXF451E□□100MJ20S
	15	12.5 × 20	0.24	140	EKXF451E□□150MK20S
	22	12.5 × 25	0.24	240	EKXF451E□□220MK25S
	27	16×20	0.24	305	EKXF451E□□270ML20S
	33	16 × 25	0.24	392	EKXF451E□□330ML25S
	33	18 × 20	0.24	312	EKXF451E□□330MM20S
	47	18 × 25	0.24	480	EKXF451E□□470MM25S
	68	18 × 31.5	0.24	520	EKXF451E□□680MMN3S

 $[\]square\,\square$: Enter the appropriate lead forming or taping code.