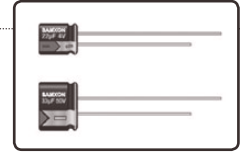


FEATURES

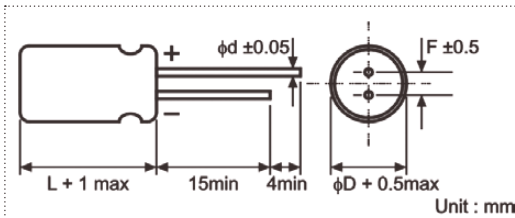
- Super miniature, 5mmL, high temperature, suitable for use in electronic circuit of high density assembly of video recorder, remote controller, VCD etc.



SPECIFICATIONS

Item	Performance Characteristics							
Operating Temperature Range	-40 to +105°C							
Rated Working Voltage Range	4 to 50V							
Nominal Capacitance Range	3.3 to 330μF							
Capacitance Tolerance	±20% at 120Hz, +20°C							
Leakage Current	I ≤ 0.01CV or 3 (μA) whichever is greater measured after 2 minutes application of rated working voltage at +20°C							
tan δ (120Hz, +20°C)	Working Voltage (V)	4	6.3	10	16	25	35	50
	tan δ (max.)	0.37	0.28	0.24	0.20	0.16	0.13	0.12
Low Temperature Characteristics	Impedance ratio max. at 120Hz							
	Working Voltage (V)	4	6.3	10	16	25	35	50
	Z-25°C / Z+20°C	6	3	3	2	2	2	2
	Z-40°C / Z+20°C	12	8	5	4	3	3	3
High Temperature Loading	Test time	: 1,000 hours			Post test requirements at +20°C			
	Test temperature	: +105°C			Leakage current : ≤ initial specified value			
	Test conditions	: Rated DC working voltage with rated ripple current			Cap. change : within ±20% of the initial measured value (4V: within ±30%)			
					tan δ : ≤ 200% of the initial specified value			
Shelf Life	At +105°C no voltage applied after 1,000 hours and then being stabilized at +20°C the capacitors shall meet the following limits							
	Leakage current	: ≤ initial specified value						
	Cap. change	: within ±20% of the initial measured value (4V: within ±30%)						
	tan δ	: ≤ 200% of the initial specified value						
Industrial Standard	JIS C - 5101-4 (IEC 60384-4)							

CASE SIZE TABLE



φD	4	5	6.3	8
F	1.5	2.0	2.5	2.5
φd	0.45			

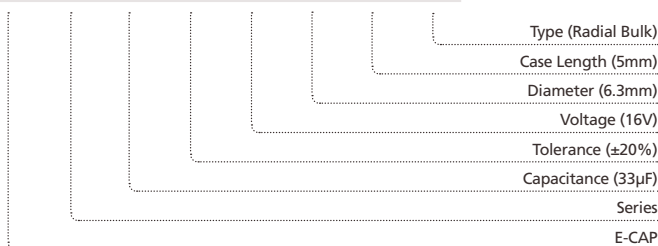
RIPPLE CURRENT MULTIPLIER

Frequency Coefficient

Coefficient	Cap (μF)	50	120	300	1k	10k~
≤47		0.75	1.00	1.35	1.57	2.00
68~330		0.80	1.00	1.23	1.34	1.50

PART NUMBER SYSTEM (EXAMPLE : 16V 33μF)

1	23	456	7	89	10	1112	1314
E	KF	336	M	1C	E	05	RR



STANDARD RATINGS

Voltage (Code)		4V (0G)		6.3V (0J)		10V (1A)		16V (1C)	
Cap. (μF)	Code	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current
10	106							4 x 5	18
22	226	4 x 5	22	4 x 5	22	4 x 5	24	5 x 5	30
33	336	5 x 5	30	5 x 5	30	5 x 5	35	6.3 x 5	40
47	476	5 x 5	36	5 x 5	36	6.3 x 5	46	6.3 x 5	50
100	107	6.3 x 5	60	6.3 x 5	60	6.3 x 5	67	6.3 x 5	73
220	227			8 x 5	103	8 x 5	116	8 x 5	126
330	337			8 x 5	127				

Maximum Allowable Ripple Current (mArms) at 105°C 120Hz

Case Size ΦD x L (mm)

Voltage (Code)		25V (1E)		35V (1V)		50V (1H)	
Cap. (μF)	Code	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current
3.3	335			4 x 5	11	4 x 5	14
4.7	475	4 x 5	13	4 x 5	15	5 x 5	19
10	106	4 x 5	20	5 x 5	25	6.3 x 5	30
22	226	6.3 x 5	38	6.3 x 5	48	8 x 5	52
33	336	6.3 x 5	48	6.3 x 5	59	8 x 5	63
47	476	6.3 x 5	58	8 x 5	82		
100	107	8 x 5	97				

Maximum Allowable Ripple Current (mArms) at 105°C 120Hz

Case Size ΦD x L (mm)

Specifications are subject to change without notice. Should a safety or technical concern arise regarding the product, please be sure to contact our sales offices or agents immediately.