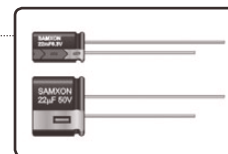


## FEATURES

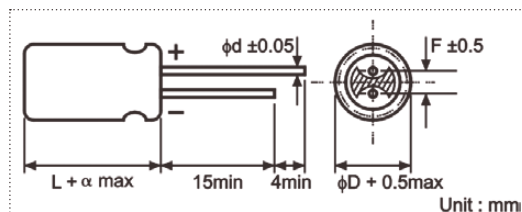
- Rated working voltage range 6.3 to 50V DC operation temperature range -40 to +105°C.
- This series is for communication equipments, switching power supply, industrial measuring instruments, automotive electric products, etc.



## SPECIFICATIONS

Item	Performance Characteristics						
Operating Temperature Range	-40 to +105°C						
Rated Working Voltage Range	6.3 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)	6.3	10	16	25	35	50
	tan δ (max.)	0.24	0.21	0.18	0.15	0.13	0.12
Low Temperature Characteristics	Impedance ratio max. at 120Hz						
	Working Voltage (V)	6.3	10	16	25	35	50
	Z-25°C / Z+20°C	4	2	2	2	2	2
	Z-40°C / Z+20°C	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		
					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					
	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	3.5
Φd	0.45			
α	(L ≤ 7) 1		(L ≥ 9) 1.5	

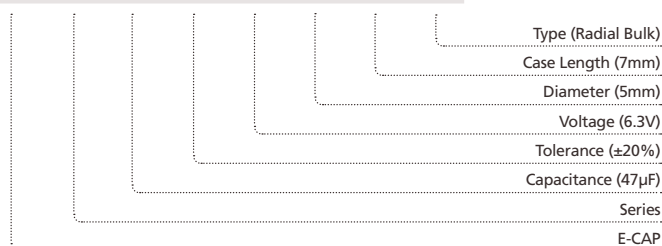
## RIPPLE CURRENT MULTIPLIER

### Frequency Coefficient

Coefficient	Cap (μF)	50	120	300	1k	10k~
≤47		0.75	1.00	1.35	1.57	2.00
68~220		0.80	1.00	1.23	1.34	1.50

## PART NUMBER SYSTEM (EXAMPLE : 6.3V 47μF)

1	2 3	4 5 6	7	8 9	10	11 12	13 14
E	KS	476	M	OJ	D	07	RR



**STANDARD RATINGS**

Voltage (Code)		6.3V (0J)		10V (1A)		16V (1C)		25V (1E)	
Cap. (μF)	Code	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current
10	106					4 x 7	29	4 x 7	29
22	226	4 x 7	34	4 x 7	34	4 x 7	38	5 x 7	45
33	336	4 x 7	37	4 x 7	40	5 x 7	50	5 x 7	55
47	476	4 x 7	44	5 x 7	50	5 x 7	60	6.3 x 7	67
100	107	5 x 7	67	5 x 7	72	6.3 x 7	92	6.3 x 7	97
				6.3 x 7	83	8 x 7	106	8 x 7	113
220	227	6.3 x 7	112	8 x 7	140	8 x 9	174		
330	337	8 x 7	158						

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

Case Size ΦD x L (mm)

Voltage (Code)		35V (1V)		50V (1H)	
Cap. (μF)	Code	Case Size	Ripple Current	Case Size	Ripple Current
3.3	335			4 x 7	24
4.7	475	4 x 7	24	5 x 7	29
10	106	5 x 7	36	5 x 7	38
				6.3 x 7	44
22	226	6.3 x 7	57	8 x 7	65
33	336	6.3 x 7	62		
47	476	6.3 x 7	74		
100	107	8 x 9	65		

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.