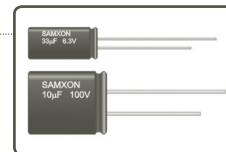


FEATURES

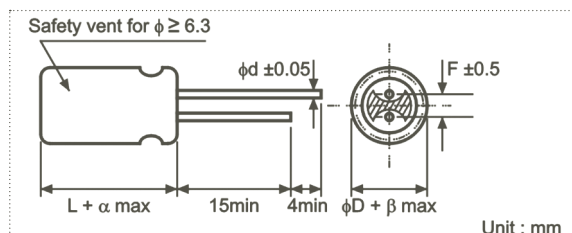
- Nonpolar, high temperature.
- Suitable for use in polarity and change circuits.



SPECIFICATIONS

Item	Performance Characteristics								
Operating Temperature Range	-40 to +105°C								
Rated Working Voltage Range	6.3 to 100V								
Nominal Capacitance Range	2.2 to 1000µF								
Capacitance Tolerance	±20% at 120Hz, +20°C								
Leakage Current	I ≤ 0.03CV or 3 (µA) whichever is greater measured after 5 minutes application of rated working voltage at +20°C								
tan δ (120Hz, +20°C)	Working Voltage (V)	6.3	10	16	25	35	50	63	100
	tan δ (max.)	0.26	0.24	0.22	0.20	0.16	0.14	0.12	0.10
Low Temperature Characteristics	Impedance ratio max. at 120Hz								
	Working Voltage (V)	6.3	10	16	25	35	50	63	100
	Z-25°C / Z+20°C	4	3	2	2	2	2	2	2
	Z-40°C / Z+20°C	8	6	4	4	3	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 to each polarity every 250 hours			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



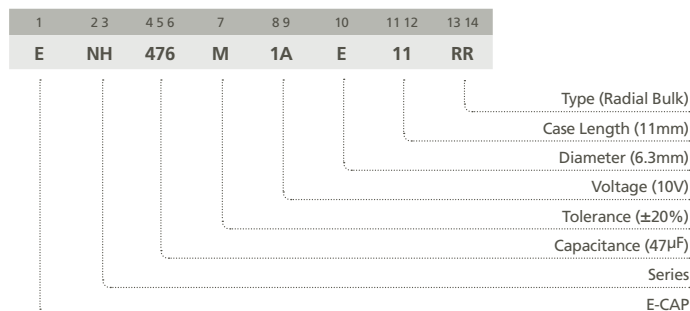
φD	5	6.3	8 (L < 20)	8 (L ≥ 20)	10	12.5	16
F	2.0	2.5	3.5	3.5	5.0	5.0	7.5
φd	0.5	0.5	0.5	0.6	0.6	0.6	0.8
α	(L < 20) 1.5			(L ≥ 20) 2.0			
β	(D < 20) 0.5			(D ≥ 20) 1.0			

RIPPLE CURRENT MULTIPLIER

Frequency Coefficient

Coefficient	Freq. (Hz)	50	120	300	1k	10k~
Cap (µF)	≤ 47	0.75	1.00	1.35	1.57	2.00
	68-220	0.80	1.00	1.23	1.34	1.50
	≥ 560	0.85	1.00	1.10	1.13	1.15

PART NUMBER SYSTEM (EXAMPLE : 10V 47µF)



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
4.7	475							5 x 11	23
10	106					5 x 11	30	5 x 11	34
22	226			5 x 11	42	6.3 x 11	51	6.3 x 11	55
33	336	5 x 11	46	6.3 x 11	57	6.3 x 11	63	8 x 12	79
47	476	6.3 x 11	61	6.3 x 11	67	8 x 12	89	10 x 12.5	100
100	107	8 x 12	104	10 x 12.5	125	10 x 12.5	139	10 x 16	164
220	227	10 x 12.5	168	10 x 16	204	10 x 20	279	12.5 x 25	336
330	337	10 x 16	229	10 x 20	275	12.5 x 20	346	12.5 x 25	414
470	477	10 x 20	330	12.5 x 20	371	12.5 x 25	460	16 x 25	543
1000	108	12.5 x 25	550	16 x 25	668	16 x 25	746	16 x 30	871

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

Case Size Φ D x L (mm)

Voltage (Code)		35V (1V)		50V (1H)		63V (1J)		100V (2A)	
Cap. (µF)	Code	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current
2.2	225			5 x 11	18			6.3 x 11	22
3.3	335			5 x 11	22	6.3 x 11	26	8 x 12	32
4.7	475	5 x 11	25	6.3 x 11	29	6.3 x 11	31	8 x 12	39
10	106	6.3 x 11	40	8 x 12	51	8 x 12	53	10 x 12.5	64
22	226	8 x 12	68	10 x 12.5	82	10 x 16	96	10 x 20	114
33	336	10 x 12.5	89	10 x 16	107	10 x 20	129	12.5 x 20	164
47	476	10 x 12.5	111	10 x 20	146	10 x 20	157	12.5 x 25	200
100	107	10 x 20	196	12.5 x 25	264	12.5 x 25	275	16 x 25	304
220	227	12.5 x 25	364	16 x 25	443	16 x 30	486		
330	337	16 x 25	493	16 x 30	593				
470	477	16 x 25	586						

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

Case Size Φ D 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.