

**FEATURES**

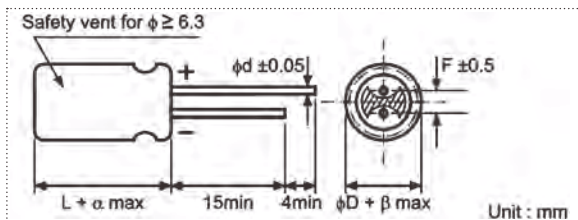
- Low impedance for high frequency.
- Life time: 1,000~4,000 hours at 105°C.



**SPECIFICATIONS**

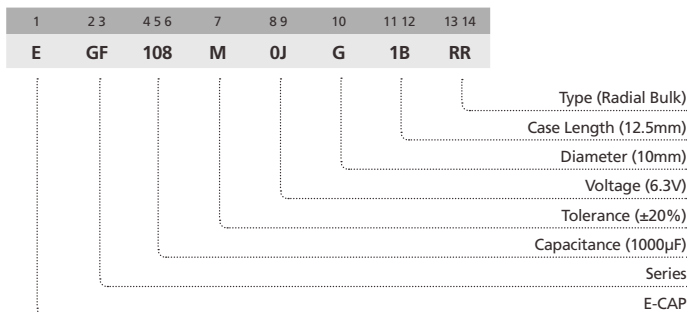
Item	Performance Characteristics										
Operating Temperature Range	-40 to +105°C										
Rated Working Voltage Range	6.3 to 100V										
Nominal Capacitance Range	3.3 to 4700µF										
Capacitance Tolerance	±20% at 120Hz, +20°C										
Leakage Current	I ≤ 0.01CV or 3 (µA) whichever is greater 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	63	100		
	tan δ (max.)	0.22	0.19	0.16	0.14	0.12	0.10	0.09	0.08		
For capacitance value >1000µF, add 0.02 per another 1000µF											
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											
High Temperature Loading	Test time	φD	L ≤ 7	D5-6.3	D8-10	D12.5	Post test requirements at +20°C				
	Load life	1,000h	2,000h	3,000h	4,000h	Leakage current : ≤ Initial specified value					
	Test temperature	: +105°C					Cap. change : within ±25% of the initial measured value				
	Test conditions	: Rated DC working voltage with rated ripple current					tan δ : ≤ 150% 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 ±25% of the initial measured value											
tan δ : ≤ 150% of the initial specified value											
Industrial Standard	JIS C - 5101-4 (IEC 60384-4)										

**CASE SIZE TABLE**



φD	4	5	6.3	8 (L < 20)	8 (L ≥ 20)	10	12.5
F	1.5	2.0	2.5	3.5	3.5	5.0	5.0
φd	0.45	(L ≤ 7) 0.45	(L ≥ 9) 0.50	0.6	0.6	0.6	0.6
α	(L ≤ 7) 1		(L ≤ 9 < 20) 1.5		(L ≥ 20) 2.0		
β	(D < 20) 0.5				(D ≥ 20) 1.0		

**PART NUMBER SYSTEM (EXAMPLE : 6.3V 1000µF)**



**STANDARD RATINGS**

Voltage (Code)		6.3V (0J)			10V (1A)			16V (1C)		
Cap. (μF)	Code	Case Size	Impedance	Ripple Current	Case Size	Impedance	Ripple Current	Case Size	Impedance	Ripple Current
10	106							4 x 5	5.000	50
15	156							4 x 7	3.300	70
								5 x 5	2.600	80
22	226	4 x 5	5.000	50	4 x 7	3.300	70	5 x 7	1.700	110
					5 x 5	2.600	80	5 x 5	2.600	80
33	336	5 x 5	2.600	80	5 x 5	2.600	80	6.3 x 5	1.300	115
		5 x 7	1.700	110	5 x 7	1.700	110	6.3 x 7	0.800	160
47	476	5 x 5	2.600	80	6.3 x 5	1.300	115	6.3 x 5	1.300	115
		5 x 7	1.700	110	6.3 x 7	0.800	160	6.3 x 7	0.800	160
68	686	6.3 x 5	1.300	115	6.3 x 7	0.800	160	8 x 7	0.500	200
		6.3 x 7	0.800	160						
100	107	6.3 x 5	1.300	115	8 x 7	0.500	200	6.3 x 11	0.220	340
		6.3 x 7	0.800	160				8 x 7	0.500	200
120	127							6.3 x 11	0.220	340
150	157	8 x 7	0.500	200	6.3 x 11	0.220	340	6.3 x 11	0.220	340
					8 x 7	0.500	200	8 x 12	0.130	640
180	187	6.3 x 11	0.220	340	6.3 x 11	0.220	340	6.3 x 11	0.220	340
								8 x 12	0.130	640
220	227	8 x 7	0.500	200	6.3 x 11	0.220	340	6.3 x 11	0.220	340
		6.3 x 11	0.220	340				8 x 12	0.130	640
270	277	6.3 x 11	0.220	340	6.3 x 11	0.220	340	8 x 12	0.130	640
					8 x 12	0.130	640			
330	337	6.3 x 11	0.220	340	6.3 x 11	0.220	340	6.3 x 11	0.220	340
		8 x 12	0.130	640						
390	397	8 x 12	0.130	640	8 x 12	0.130	640	8 x 12	0.130	640
470	477	8 x 12	0.130	640	6.3 x 11	0.220	340	8 x 12	0.130	640
					8 x 12	0.130	640			
560	567	8 x 12	0.130	640	8 x 12	0.130	640	10 x 12.5	0.080	865
								8 x 16	0.087	840
680	687	8 x 12	0.130	640	8 x 12	0.130	640	10 x 12.5	0.080	865
								10 x 12.5	0.080	865
820	827	8 x 12	0.130	640	10 x 12.5	0.080	865	10 x 16	0.060	1210
		10 x 12.5	0.080	865						
1000	108	8 x 12	0.130	640	8 x 16	0.087	840	8 x 16	0.087	840
		10 x 12.5	0.080	865						
1200	128	8 x 16	0.087	840	10 x 20	0.046	1400	10 x 20	0.046	1400
		10 x 12.5	0.080	865						
1500	158	8 x 20	0.069	1050	10 x 20	0.046	1400	10 x 20	0.046	1400
		10 x 16	0.060	1210						
1800	188	10 x 20	0.046	1400	10 x 20	0.046	1400	10 x 25	0.042	1650
								12.5 x 20	0.035	1900
2200	228	10 x 20	0.046	1400	10 x 20	0.046	1400	10 x 25	0.042	1650
								12.5 x 20	0.035	1900
2700	278	10 x 25	0.042	1650	10 x 25	0.042	1650	12.5 x 25	0.030	2124
		12.5 x 20	0.035	1900						
3300	338	10 x 25	0.042	1650	12.5 x 25	0.030	2124	12.5 x 25	0.030	2124
		12.5 x 20	0.035	1900						
3900	398	12.5 x 20	0.035	1900						
4700	478	12.5 x 25	0.030	2124						

Maximum Allowable Ripple Current (mArms) at 105°C 100kHz

Case Size  $\Phi$ D x L (mm)

Maximum Impedance ( $\Omega$ ) at 20°C 100kHz

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.

## STANDARD RATINGS

Voltage (Code)		25V (1E)			35V (1V)			50V (1H)		
Cap. (µF)	Code	Case Size	Impedance	Ripple Current	Case Size	Impedance	Ripple Current	Case Size	Impedance	Ripple Current
3.3	335				4 x 5	5.000	50			
4.7	475	4 x 5	5.000	50	4 x 5	5.000	50			
6.8	685	4 x 5	5.000	50	4 x 7	3.300	70			
					5 x 5	2.600	80			
10	106	4 x 7	3.300	70	5 x 5	2.600	80			
		5 x 5	2.600	80	5 x 7	1.700	110			
15	156	5 x 7	1.700	110	6.3 x 5	1.300	115			
		6.3 x 5	1.300	115	6.3 x 7	0.800	160			
22	226	5 x 7	1.700	110	6.3 x 5	1.300	115			
		6.3 x 5	1.300	115	6.3 x 7	0.800	160			
33	336	6.3 x 5	1.300	115	8 x 7	0.500	200	6.3 x 11	0.300	295
		6.3 x 7	0.800	160						
39	396							6.3 x 11	0.300	295
47	476	8 x 7	0.500	200	6.3 x 11	0.220	340	6.3 x 11	0.300	295
56	566				6.3 x 11	0.220	340	8 x 12	0.170	555
68	686	8 x 7	0.500	200	6.3 x 11	0.220	340	8 x 12	0.170	555
82	826	6.3 x 11	0.220	340	8 x 12	0.130	640	8 x 12	0.170	555
100	107	6.3 x 11	0.220	340	6.3 x 11	0.220	340	10 x 12.5	0.120	760
					8 x 12	0.130	640			
120	127	8 x 12	0.130	640	8 x 12	0.130	640	8 x 16	0.120	730
								10 x 12.5	0.120	760
150	157	8 x 12	0.130	640	8 x 12	0.130	640	10 x 16	0.084	1050
180	187	8 x 12	0.130	640	10 x 12.5	0.080	865	8 x 20	0.091	910
								10 x 16	0.084	1050
220	227	8 x 12	0.130	640	8 x 12	0.130	640	8 x 20	0.091	910
					8 x 16	0.087	840			
					10 x 12.5	0.080	865			
270	277	8 x 12	0.130	640	10 x 16	0.060	1210	10 x 25	0.055	1440
		10 x 12.5	0.080	865						
330	337	8 x 12	0.130	640	8 x 16	0.087	840	12.5 x 20	0.045	1660
					8 x 20	0.069	1050			
		10 x 12.5	0.080	865	10 x 12.5	0.080	865			
390	397	10 x 12.5	0.080	865	10 x 16	0.060	1210	12.5 x 20	0.045	1660
					10 x 16	0.060	1210			
		8 x 16	0.087	840	10 x 16	0.060	1210			
470	477	10 x 12.5	0.080	865	10 x 20	0.046	1400	12.5 x 25	0.034	1950
		10 x 16	0.060	1210						
560	567	10 x 16	0.060	1210	10 x 20	0.046	1400	12.5 x 25	0.034	1950
680	687	10 x 16	0.060	1210	10 x 20	0.046	1400			
		10 x 20	0.046	1400	12.5 x 20	0.035	1900			
820	827	10 x 20	0.046	1400	10 x 25	0.042	1650			
					12.5 x 20	0.035	1900			
1000	108	10 x 20	0.046	1400	12.5 x 20	0.035	1900			
					12.5 x 25	0.030	2124			
1200	128	10 x 20	0.046	1400						
1500	158	10 x 25	0.042	1650						
		12.5 x 20	0.035	1900						
1800	188	12.5 x 25	0.030	2124						
2200	228	12.5 x 25	0.030	2124						

Maximum Allowable Ripple Current (mArms) at 105°C 100kHz

Case Size  $\Phi$ D x L (mm)

Maximum Impedance ( $\Omega$ ) at 20°C 100kHz

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**STANDARD RATINGS**

Voltage (Code)		63V (1J)			100V (2A)		
Cap. (μF)	Code	Case Size	Impedance	Ripple Current	Case Size	Impedance	Ripple Current
15	156				6.3 x 11	0.960	115
22	226	6.3 x 11	0.960	115			
27	276	6.3 x 11	0.960	115	8 x 12	0.504	232
33	336	6.3 x 11	0.960	115			
39	396	8 x 12	0.504	232	8 x 16	0.360	300
47	476	8 x 12	0.504	232	10 x 12.5	0.344	314
56	566	8 x 12	0.504	232	8 x 20	0.264	362
68	686	8 x 12	0.504	232	10 x 16	0.248	357
82	826	10 x 12.5	0.344	314	10 x 20	0.168	466
100	107	8 x 16	0.360	300	10 x 20	0.168	466
		10 x 12.5	0.344	314	12.5 x 20	0.128	690
120	127	8 x 16	0.360	300	12.5 x 20	0.128	690
		10 x 16	0.248	357			
150	157	8 x 20	0.264	362			
180	187	10 x 20	0.168	466	12.5 x 25	0.096	922
220	227	10 x 16	0.248	357	12.5 x 25	0.096	922
		10 x 20	0.168	466			
270	277	12.5 x 20	0.128	690			
330	337	12.5 x 20	0.128	690			
390	397	12.5 x 25	0.096	922			

Maximum Allowable Ripple Current (mArms) at 105°C 100kHz

Case Size  $\Phi$ D x L (mm)

Maximum Impedance ( $\Omega$ ) at 20°C 100kHz

**RIPPLE CURRENT MULTIPLIER**

**Frequency Coefficient**

Coefficient Cap. (μF)	Freq. (Hz)	120	1k	10k	100k
≤180		0.40	0.75	0.90	1.00
220~560		0.50	0.85	0.94	1.00
680~1800		0.60	0.87	0.95	1.00
2200~3900		0.75	0.90	0.95	1.00
4700		0.85	0.95	0.98	1.00

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## Part Number System (產品編碼)

1 2 3			4 5 6			7	8 9		10 11 12			13 14		15 16		17	
EGS			105			M	1H		D11			TC		SA		P	
SERIES			CAPACITANCE			TOLERANCE		VOLTAGE		CASE SIZE			TYPE		SAMXON PRODUCT LINE		SLEEVE MATERIAL
Series	Cap (uF)	Code	Tol. (%)	Code	Vol. (W.V)	Code	Case Size		Feature	Code	SAMXON Product Line		Sleeve Material	Code			
EKF	0.1	104	±5	J	2	0D	Diameter(φ)		Radial bulk	RR	For internal use only (The product lines we have H,A,B,C,D,E,M or 0,1,2,3,4,5,9).		PET	P			
EKS					2.5	0E	3	B									
EGS					4	0G	3.5	1									
EKM	0.22	224	±10	K	6.3	0J	Code		Ammo Taping		If the sleeve material is PVC, there will be blank in seventeenth digit.		PVC				
EKG					8	0K	5	D									
EOM					10	1A	6.3	E									
EGF	0.33	334	±15	L	12.5	1B	Len. (mm)		2.0mm Pitch	TT	If the sleeve material is PVC, there will be blank in seventeenth digit.		PVC				
ESF					16	1C	4.5	45									
EGT					20	1D	5	05									
EGK	0.47	474	±20	M	25	1E	Code		2.5mm Pitch	TU	If the sleeve material is PVC, there will be blank in seventeenth digit.		PVC				
ESK					30	1I	5.4	54									
ESH					32	13	7	07									
ESK	2.2	225	-20	0	35	1V	Code		3.5mm Pitch	TV	If the sleeve material is PVC, there will be blank in seventeenth digit.		PVC				
ERS					40	1G	7.7	77									
EGY					42	1M	10.2	T2									
ERF	3.3	335	-20	+10	50	1H	Code		5.0mm Pitch	TC	If the sleeve material is PVC, there will be blank in seventeenth digit.		PVC				
ERR					57	1L	11	11									
ERT					63	1J	11.5	1A									
ERE	4.7	475	-20	+40	71	1S	Code		Lead Cut & Form		If the sleeve material is PVC, there will be blank in seventeenth digit.		PVC				
ERD					75	1T	12	12									
ERH					80	1K	12.5	1B									
ERH	10	106	-20	+50	85	1R	Code		CB-Type	CB	If the sleeve material is PVC, there will be blank in seventeenth digit.		PVC				
EBD					90	19	13	13									
ERA					90	19	13.5	1C									
ERB	22	226	-10	0	90	19	Code		CE-Type	CE	If the sleeve material is PVC, there will be blank in seventeenth digit.		PVC				
ERC					100	2A	13.5	1C									
EFA					120	2O	15	15									
ENP	47	476	-10	+20	125	2B	Code		HE-Type	HE	If the sleeve material is PVC, there will be blank in seventeenth digit.		PVC				
ENH					150	2Z	15.5	15									
ERW					160	2C	16	16									
ERY	100	107	-10	+30	160	2C	Code		KD-Type	KD	If the sleeve material is PVC, there will be blank in seventeenth digit.		PVC				
ELP					180	2P	17	17									
EAP					200	2D	17.7	77									
EQP	330	337	+13	+50	215	22	Code		FD-Type	FD	If the sleeve material is PVC, there will be blank in seventeenth digit.		PVC				
EDP					220	2N	18	18									
ETP					230	23	18.5	13									
EHP	470	477	-5	+15	250	2E	Code		EH-Type	EH	If the sleeve material is PVC, there will be blank in seventeenth digit.		PVC				
EUP					275	2T	19	19									
EKP					300	2I	20	20									
EPK	2200	228	-5	+20	310	2R	Code		PCB Terminal		If the sleeve material is PVC, there will be blank in seventeenth digit.		PVC				
EEP					315	2F	20.2	2J									
EFP					330	2U	21	11									
ESP	22000	229	0	+20	330	2U	Code		Snap-in	SW	If the sleeve material is PVC, there will be blank in seventeenth digit.		PVC				
EVP					350	2V	21.5	1A									
EGP					350	2V	22	11									
EWR	47000	479	0	+30	360	2X	Code		Screw	SX	If the sleeve material is PVC, there will be blank in seventeenth digit.		PVC				
EWI					375	2Y	22.5	12									
EWT					400	2G	22.5	1B									
EWX	100000	10T	0	+50	420	2M	Code		Lug	SG	If the sleeve material is PVC, there will be blank in seventeenth digit.		PVC				
EWX					450	2W	23	13									
EWX					450	2W	23.5	13									
EWX	150000	15T	+5	+15	450	2M	Code		Screw	O5	If the sleeve material is PVC, there will be blank in seventeenth digit.		PVC				
EWX					500	2H	24	14									
EWX					500	2H	24.5	14									
VSS	220000	22T	+5	+20	550	25	Code		Screw	O6	If the sleeve material is PVC, there will be blank in seventeenth digit.		PVC				
VKS					600	26	24.5	14									
VKS					600	26	25	15									
VKM	330000	33T	+10	+50	630	2J	Code		Screw	T5	If the sleeve material is PVC, there will be blank in seventeenth digit.		PVC				
VRL					630	2J	25.5	15									
VRL					630	2J	26	16									
VZS	1000000	10M	+10	+50			Code		Screw	T6	If the sleeve material is PVC, there will be blank in seventeenth digit.		PVC				
VRF							26.5	1F									
VRF							27	1T									
	1500000	15M					Code		Screw	D5	If the sleeve material is PVC, there will be blank in seventeenth digit.		PVC				
							27	1T									
							27	1T									
	2200000	22M					Code		Screw	D6	If the sleeve material is PVC, there will be blank in seventeenth digit.		PVC				
							27	1T									
							27	1T									
	3300000	33M					Code		Screw		If the sleeve material is PVC, there will be blank in seventeenth digit.		PVC				
							27	1T									
							27	1T									