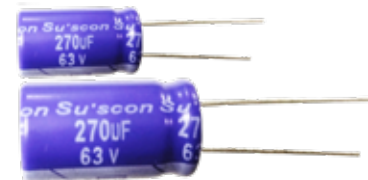


HGN series

- Anhydrous product.
- High ripple current, Low impedance at high frequency range.
- 105°C, long life 10000hours.
- RoHS Compliance
- 無水系產品。
- 高紋波電流、高頻低阻抗。
- 105°C ,10000小時長壽命產品。



SPECIFICATIONS

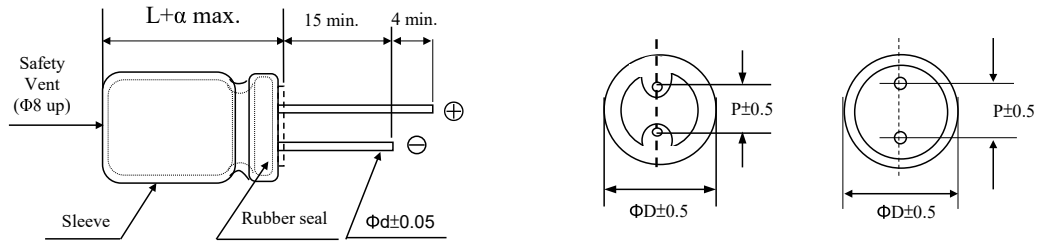
Items 項目	Characteristics 特性								
Capacitance Tolerance 靜電容量誤差	± 20%(120Hz,20°C)								
Operating Temperature Range 適用溫度範圍	-55 ~ +105°C				-40 ~ +105°C				
Rated Voltage Range 額定電壓範圍	6.3 ~ 50VDC				63 ~ 100VDC				
Leakage Current 洩漏電流	I ≤ 0.01CV or 3 (µA) which is greater.(After 2 minutes application of DC rated voltage, at 20 °C)								
Dissipation Factor 散逸因素(tan δ)	Measurement Frequency: 120Hz. Temperature: 20°C								
	Rated Voltage(V)	6.3	10	16	25	35	50	63~80	100
	tan δ(Max)	0.24	0.20	0.16	0.15	0.12	0.10	0.09	0.08
When nominal capacitance over 1000µF, tanδ shall be added 0.02 to the listed value with increase of every 1000µF.									
Low Temperature Stability 低溫特性 Impedance Ratio(Max) 阻抗比率(最大值)	Measurement Frequency: 120Hz.								
	Rated 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)	-	-	-	-	-	-	3	3
	Z(-55°C)/Z(20°C)	8	6	4	3	3	3	3	3
Load Life 負荷壽命	The following specifications shall be satisfied when the capacitors are restored to 20°C after subjected to DC voltage with the rated ripple current is applied for varied hours according to varied φ and voltage [please refer to below sheet] at 105°C.								
	Case size			φ D ≤ 6.3		φ D = 8,10		φ D ≥ 13	
	Voltage	6.3 ~ 10 V		4,000 hours		6,000 hours		8,000 hours	
		16 ~ 100 V		5,000 hours		7,000 hours		10,000 hours	
	Capacitance Change		Within ± 25% of Initial Value						
	tan δ		200% or less of Initial Specified Value						
Leakage Current		Initial Specified Value or less							
Shelf Life 放置壽命	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing t14be preconditioned by applying voltage according to them 4.1 of JIS C5101-4.								
	Capacitance Change		Within ± 25% of Initial Value						
	tan δ		200% or less of Initial Specified Value						
	Leakage Current		Initial Specified Value or less						
Standards 參照標準	IEC 60384-4(JIS C5101-4,AEC-Q200)								

Frequency Coefficient of Permissible Ripple Current

Capacitance (µF)	Frequency (Hz)				
	50	120	300	1K	100K
≤ 33	0.50	0.55	0.70	0.90	1.00
47 ~ 330	0.60	0.70	0.85	0.95	1.00
470 ~ 1000	0.65	0.75	0.90	0.98	1.00
1200 ~ 18000	0.70	0.80	0.95	1.00	1.00

HGN series

DIMENSIONS(mm)



ΦD	5	6.3	8	10	12.5	16	18
P	2.0	2.5	3.5	5.0	5.0	7.5	7.5
Φd	0.5	0.5	0.5	0.6	0.6	0.8	0.8

α	(L < 20) 1.5
	(L ≥ 20) 2.0

STANDARD RATINGS

DxL(mm) ; R.C.(mA rms) at 105°C 100kHz ; IMP (Ω max) at 20°C,-10°C 100kHz.

Cap (μF)	V	Item	6.3			10							
			D x L	IMP		R.C.	D x L	IMP		R.C.			
				20°C	-10°C			20°C	-10°C				
100							5x11	0.640	2.53	215			
150		5x11	0.630	2.53	210		5x11	0.640	2.53	230			
220		6.3x11	0.280	0.990	320		6.3x11	0.250	0.960	340			
330		6.3x11	0.230	0.960	340		6.3x11	0.250	0.960	380			
470		8x11.5	0.170	0.640	345		8x11.5	0.150	0.580	640			
680		8x11.5	0.150	0.580	645		8x16	0.098	0.390	845			
						10x12.5	0.091	0.340	865				
820		10x12.5	0.091	0.360	865		10x16	0.080	0.310	1,015			
1000		8x16	0.097	0.390	870		8x20	0.078	0.300	1,050			
						10x16	0.069	0.270	1,215				
1200		8x20	0.081	0.290	1,050		10x20	0.053	0.200	1,410			
		10x16	0.072	0.270	1,215								
1500		10x20	0.053	0.210	1,410		10x25	0.048	0.190	1,610			
1800							12.5x20	0.046	0.170	1,710			
2200		10x25	0.050	0.190	1,650		10x30	0.036	0.140	1,920			
						12.5x20	0.042	0.140	1,910				
2700		10x30	0.036	0.140	1,900								
3300		12.5x20	0.041	0.140	1,900		12.5x25	0.032	0.100	2,230			
3900		12.5x25	0.032	0.100	2,240		12.5x30	0.029	0.089	2,660			
4700		12.5x30	0.029	0.089	2,650		12.5x35	0.025	0.075	2,890			
5600		12.5x35	0.025	0.075	2,890		12.5x40	0.021	0.064	3,360			
						16x26	0.025	0.069	2,940				
6800		12.5x40	0.021	0.064	3,350		16x31.5	0.021	0.058	3,460			
		16x26	0.025	0.069	2,940		18x25	0.025	0.057	3,150			
8200		16x31.5	0.021	0.058	3,450		16x36	0.020	0.052	3,610			
						18x31.5	0.020	0.047	4,180				
10000		16x36	0.019	0.052	3,620		16x40	0.018	0.045	4,090			
		18x25	0.023	0.057	3,150		18x35.5	0.017	0.045	4,150			
12000		16x40	0.017	0.045	4,090		18x40	0.015	0.039	4,290			
		18x31.5	0.019	0.047	4,180								
15000		18x35.5	0.018	0.045	4,230								
18000		18x40	0.016	0.035	4,290								

HGN

HGN series

STANDARD RATINGS

DxL(mm) ; R.C.(mA rms) at 105°C 100kHz ; IMP (Ω max) at 20°C,-10°C 100kHz.

Cap (μ F)	V Item	16				25			
		D x L	IMP		R.C.	D x L	IMP		R.C.
			20°C	-10°C			20°C	-10°C	
47						5x11	0.760	3.04	200
56		5x11	0.760	3.04	220	5x11	0.760	3.04	240
100		6.3x11	0.280	1.15	310	6.3x11	0.280	1.15	340
120		6.3x11	0.280	1.15	340				
220		8x11.5	0.250	1.13	510	8x11.5	0.160	0.690	650
330		8x11.5	0.160	0.690	650	8x16	0.120	0.470	850
	10x12.5					0.110	0.430	870	
470		8x16	0.120	0.470	840	8x20	0.096	0.360	1,050
		10x12.5	0.110	0.430	865	10x16	0.083	0.320	1,210
680		8x20	0.095	0.360	1,060	10x20	0.064	0.240	1,410
		10x16	0.083	0.320	1,210				
820		10x20	0.073	0.290	1,310	10x25	0.058	0.230	1,660
1000		10x20	0.064	0.240	1,410	10x30	0.043	0.160	1,920
	12.5x20					0.049	0.160	1,910	
1200		10x25	0.061	0.230	1,650				
1500		10x30	0.043	0.160	1,920	12.5x25	0.038	0.120	2,240
		12.5x20	0.050	0.160	1,910				
1800		12.5x25	0.041	0.130	2,140	12.5x30	0.036	0.110	2,660
2200		12.5x25	0.038	0.120	2,240	12.5x35	0.030	0.090	2,890
2700		12.5x30	0.035	0.110	2,650	12.5x40	0.025	0.078	3,360
	16x26					0.031	0.083	2,940	
3300		12.5x35	0.030	0.091	2,890	16x31.5	0.025	0.070	3,460
	18x25					0.028	0.067	3,150	
3900		12.5x40	0.031	0.078	3,350	18x25	0.023	0.061	3,620
		16x26	0.028	0.083	2,930	18x31.5	0.024	0.056	4,180
4700		16x31.5	0.025	0.070	3,450	16x40	0.020	0.054	4,090
		18x25	0.028	0.068	3,150	18x35.5	0.022	0.054	4,230
5600		16x36	0.024	0.062	3,620	18x40	0.018	0.047	4,290
		18x31.5	0.024	0.056	4,180				
6800		16x40	0.020	0.054	4,080				
8200		18x35.5	0.023	0.054	4,230				
10000		18x40	0.018	0.047	4,290				

HGN series

STANDARD RATINGS

DxL(mm) ; R.C.(mA rms) at 105°C 100kHz ; IMP (Ω max) at 20°C,-10°C 100kHz.

Cap (μ F)	V Item	35				50			
		D x L	IMP		R.C.	D x L	IMP		R.C.
			20°C	-10°C			20°C	-10°C	
22						5x11	1.540	6.16	180
33		5x11	0.690	2.78	220				
47		6.3x11	0.430	1.70	280	6.3x11	0.780	3.30	220
56		6.3x11	0.400	1.58	340	6.3x11	0.660	2.64	300
100		8x11.5	0.320	1.18	510	8x11.5	0.360	1.47	560
120						8x16	0.270	1.06	740
150		8x11.5	0.16	0.630	650	10x12.5	0.270	1.06	770
180						8x20	0.200	0.800	920
220		8x16	0.110	0.430	850	10x16	0.190	0.750	1,050
		10x12.5	0.100	0.390	865				
270		8x20	0.088	0.320	1,060	10x20	0.140	0.530	1,230
330		10x16	0.076	0.290	1,210	10x25	0.120	0.490	1,450
470		10x20	0.058	0.220	1,410	10x30	0.100	0.380	1,695
	12.5x20					0.100	0.340	1,670	
560		10x25	0.053	0.200	1,650	12.5x25	0.080	0.250	1,950
680		10x30	0.040	0.150	1,920	12.5x30	0.072	0.230	2,320
		12.5x20	0.044	0.160	1,910				
820						12.5x35	0.058	0.180	2,520
1000		12.5x25	0.037	0.110	2,230	12.5x40	0.050	0.160	2,930
	16x26					0.062	0.170	2,555	
1200		12.5x30	0.032	0.098	2,660	16x31.5	0.052	0.150	3,020
	18x25					0.062	0.160	2,750	
1500		12.5x35	0.028	0.083	2,880	16x36	0.046	0.130	3,150
1800		12.5x40	0.023	0.072	3,350	16x40	0.042	0.110	3,720
		16x26	0.028	0.076	2,940	18x31.5	0.052	0.130	3,640
2200		16x31.5	0.023	0.064	3,500	18x35.5	0.044	0.100	3,690
		18x25	0.026	0.063	3,140				
2700		16x36	0.022	0.057	3,620	18x40	0.038	0.090	3,810
		18x31.5	0.021	0.052	4,180				
3300		16x40	0.020	0.050	4,090				
		18x35.5	0.021	0.050	4,230				
3900		18x40	0.019	0.044	4,290				

HGN series

STANDARD RATINGS

DxL(mm) ; R.C.(mA rms) at 105°C 100kHz ; IMP (Ω max) at 20°C,-10°C 100kHz.

Cap (μ F)	V Item	63				100			
		D x L	IMP		R.C.	D x L	IMP		R.C.
			20°C	-10°C			20°C	-10°C	
6.8						5x11	2.78	11.64	56
15		5x11	2.20	9.20	56	6.3x11	1.52	6.33	120
27						8x11.5	0.980	3.54	235
33		6.3x11	1.20	5.00	120				
39						8x16	0.570	2.66	280
47		8x11.5	0.680	3.10	190	10x12.5	0.550	2.28	290
56		8x11.5	0.620	2.80	235	8x20	0.410	2.02	330
68						10x16	0.380	1.90	358
82		8x16	0.450	2.10	310	10x20	0.270	1.19	470
		10x12.5	0.430	1.80	300				
100		10x16	0.350	1.80	320	10x25	0.260	1.07	536
120		8x20	0.330	1.60	362	10x30	0.190	0.900	666
		10x16	0.300	1.50	357	12.5x20	0.210	0.810	690
180		10x20	0.200	0.940	470	12.5x25	0.160	0.570	790
220		10x25	0.200	0.840	531	12.5x30	0.130	0.530	905
	16x22					0.120	0.470	1,050	
270		10x30	0.150	0.700	663	12.5x35	0.110	0.450	1,060
		12.5x20	0.130	0.650	690	16x26	0.095	0.340	1,250
330		12.5x25	0.120	0.450	790	12.5x40	0.092	0.380	1,190
390						16x31.5	0.071	0.260	1,570
						18x25	0.075	0.270	1,490
470		12.5x30	0.100	0.420	910	16x36	0.061	0.220	1,790
	18x31.5					0.063	0.220	1,640	
560		12.5x35	0.082	0.350	1,050	16x40	0.054	0.190	2,030
		16x26	0.073	0.270	1,250				
680		12.5x40	0.070	0.300	1,190	18x35.5	0.054	0.190	1,790
820		16x31.5	0.053	0.200	1,580	18x40	0.049	0.170	2,340
		18x25	0.057	0.210	1,490				
1000		16x36	0.045	0.170	1,790				
		18x31.5	0.047	0.170	1,640				
1200		16x40	0.039	0.150	2,020				
		18x35.5	0.040	0.150	1,790				
1500		18x40	0.035	0.130	2,340				