

# ALUMINUM ELECTROLYTIC CAPACITORS

**HCGH Series** • Life rating to 2000 hours at 105°C • Temperature range -40°C to +105°C

Rated Voltage (WVDC)	Part Number	Capacitance	Case Size ØD x L (mm)	Maximum Ripple Current (A rms) @105° C, 120Hz	Maximum ESR (mΩ)	Typical ESL (nH)
<b>25 Volts (Code: 1E)</b>	HCGHA1E103YA5	10,000	36 X 53	2.9	20	10
	HCGHA1E153YA8	15,000	36 X 83	4.2	16	10
	HCGHA1E223YA8	22,000	36 X 83	5.1	14	15
	HCGHA1E333YA10	33,000	36 X 100	6.3	12	20
	HCGHA1E473YC8R	47,000	51 X 75	8.0	8	20
	HCGHA1E683YC12R	68,000	51 X 115	10.0	7	22
	HCGHA1E104YD10R	100,000	64 X 96	11.3	6	24
	HCGHA1E154YD12R	150,000	64 X 115	12.9	5	30
	HCGHA1E224YE12R	220,000	77 X 115	14.8	4	45
	HCGHA1E334YF13R	330,000	90 X 131	19.9	4	50
<b>35 Volts (Code: 1V)</b>	HCGHA1V682YA5	6,800	36 X 53	2.6	44	15
	HCGHA1V103YA8	10,000	36 X 83	3.7	30	15
	HCGHA1V153YA8	15,000	36 X 83	4.5	20	15
	HCGHA1V223YA10	22,000	36 X 100	5.5	14	20
	HCGHA1V333YC8R	33,000	51 X 75	6.7	9	20
	HCGHA1V473YC10R	47,000	51 X 96	8.1	8	22
	HCGHA1V683YC12R	68,000	51 X 115	10.0	6	24
	HCGHA1V104YD12R	100,000	64 X 115	12.1	5	30
	HCGHA1V154YE12R	150,000	77 X 115	13.8	4	35
	HCGHA1V224YF13R	220,000	90 X 131	17.6	4	45
<b>50 Volts (Code: 1H)</b>	HCGHA1H332YA5	3,300	36 X 53	2.2	62	15
	HCGHA1H472YA5	4,700	36 X 53	2.3	55	15
	HCGHA1H682YA8	6,800	36 X 83	3.4	38	16
	HCGHA1H103YA8	10,000	36 X 83	4.1	26	16
	HCGHA1H153YA10	15,000	36 X 100	4.9	19	18
	HCGHA1H223YC8R	22,000	51 X 75	5.9	13	20
	HCGHA1H333YC12R	33,000	51 X 115	7.8	9	25
	HCGHA1H473YD10R	47,000	64 X 96	9.5	8	30
	HCGHA1H683YD12R	68,000	64 X 115	11.6	5	35
	HCGHA1H104YE12R	100,000	77 X 115	14.1	4	40
	HCGHA1H154YF13R	150,000	90 X 131	18.9	4	50
<b>63 Volts (Code: 1J)</b>	HCGHA1J222YA5	2,200	36 X 53	2.1	60	11
	HCGHA1J332YA5	3,300	36 X 53	2.2	45	12
	HCGHA1J472YA8	4,700	36 X 83	3.1	32	12
	HCGHA1J682YA8	6,800	36 X 83	3.7	22	13
	HCGHA1J103YA10	10,000	36 X 100	4.4	18	14
	HCGHA1J153YC8R	15,000	51 X 75	5.7	16	15
	HCGHA1J223YC10R	22,000	51 X 96	6.8	9	18
	HCGHA1J333YD10R	33,000	64 X 96	9.2	7	20
	HCGHA1J473YD12R	47,000	64 X 115	10.9	5	30
	HCGHA1J683YE12R	68,000	77 X 115	13.0	4	40
	HCGHA1J104YF13R	100,000	90 X 131	17.2	3	50
<b>80 Volts (Code: 1K)</b>	HCGHA1K222YA5	2,200	36 X 53	2.1	51	11
	HCGHA1K332YA8	3,300	36 X 83	3.0	34	11
	HCGHA1K472YA8	4,700	36 X 83	3.6	24	15
	HCGHA1K682YA10	6,800	36 X 100	4.0	19	15
	HCGHA1K103YC8R	10,000	51 X 75	5.2	13	20
	HCGHA1K153YC10R	15,000	51 X 96	6.2	11	20
	HCGHA1K223YD10R	22,000	64 X 96	8.2	8	25
	HCGHA1K333YE10R	33,000	77 X 96	9.7	6	35
	HCGHA1K473YE12R	47,000	77 X 115	12.5	5	45
	HCGHA1K683YF13R	68,000	90 X 131	16.4	4	50

# ALUMINUM ELECTROLYTIC CAPACITORS

**HCGH Series** • Life rating to 2000 hours at 105°C • Temperature range -40°C to +105°C

Rated Voltage (WVDC)	Part Number	Capacitance	Case Size ØD x L (mm)	Maximum Ripple Current (A rms) @105° C,120Hz	Maximum ESR (m )	Typical ESL (nH)
100 Volts (Code: 2A)	HCGHA2A102YA5	1,000	36 X 53	1.4	93	11
	HCGHA2A152YA5	1,500	36 X 53	1.7	81	15
	HCGHA2A222YA8	2,200	36 X 83	2.5	55	15
	HCGHA2A332YA8	3,300	36 X 83	3.0	40	15
	HCGHA2A472YA10	4,700	36 X 100	3.9	30	20
	HCGHA2A682YC8R	6,800	51 X 75	5.0	20	20
	HCGHA2A103YC10R	10,000	51 X 96	6.5	14	22
	HCGHA2A153YD10R	15,000	64 X 96	7.6	10	25
	HCGHA2A223YE10R	22,000	77 X 96	9.7	7	30
	HCGHA2A333YE13R	33,000	77 X 130	11.8	5	40
	HCGHA2A473YF13R	47,000	90 X 131	15.0	4	50
160 Volts (Code: 2C)	HCGHA2C471YA5	470	36 X 53	1.0	178	11
	HCGHA2C681YA5	680	36 X 53	1.1	123	15
	HCGHA2C102YA8	1,000	36 X 83	1.7	84	15
	HCGHA2C152YA8	1,500	36 X 83	2.0	62	15
	HCGHA2C222YA10	2,200	36 X 100	2.7	43	18
	HCGHA2C332YC8R	3,300	51 X 75	3.5	34	20
	HCGHA2C472YC10R	4,700	51 X 96	4.4	30	20
	HCGHA2C682YD10R	6,800	64 X 96	5.9	21	25
	HCGHA2C103YE10R	10,000	77 X 96	7.6	18	35
	HCGHA2C153YE13R	15,000	77 X 130	10.3	11	40
	HCGHA2C223YF13R	22,000	90 X 131	13.2	8	50
200 Volts (Code: 2D)	HCGHA2D331YA5	330	36 X 53	0.8	282	11
	HCGHA2D471YA5	470	36 X 53	1.0	198	15
	HCGHA2D681YA5	680	36 X 53	1.1	164	15
	HCGHA2D102YA8	1,000	36 X 83	1.7	112	18
	HCGHA2D152YA10	1,500	36 X 100	2.2	87	18
	HCGHA2D222YC8R	2,200	51 X 75	2.8	63	20
	HCGHA2D332YC10R	3,300	51 X 96	3.7	43	25
	HCGHA2D472YD10R	4,700	64 X 96	4.9	30	35
	HCGHA2D682YD12R	6,800	64 X 115	6.3	20	40
	HCGHA2D103YE12R	10,000	77 X 115	8.1	14	40
	HCGHA2D153YF13R	15,000	90 X 131	10.9	9	50
250 Volts (Code: 2E)	HCGHA2E331YA5	330	36 X 53	0.8	282	12
	HCGHA2E471YA5	470	36 X 53	1.0	198	15
	HCGHA2E681YA8	680	36 X 83	1.4	161	16
	HCGHA2E102YA10	1,000	36 X 100	1.9	112	20
	HCGHA2E152YC8R	1,500	51 X 75	2.3	74	25
	HCGHA2E222YC10R	2,200	51 X 96	3.1	51	25
	HCGHA2E332YD10R	3,300	64 X 96	4.2	34	35
	HCGHA2E472YD12R	4,700	64 X 115	5.4	24	35
	HCGHA2E682YE12R	6,800	77 X 115	6.9	16	45
	HCGHA2E103YE16R	10,000	77 X 155	9.3	12	45
	HCGHA2E153YF13R	15,000	90 X 157	12.2	8	50

## Ripple Current Correction Coefficient

Temperature (°C)	40	55	70	85	105
Correction Coefficient	4.9	3.9	3.0	1.8	1.0

Frequency (Hz)	50/60	120	400	1K	≥10K
Correction Coefficient	0.8	1.0	1.1	1.3	1.4