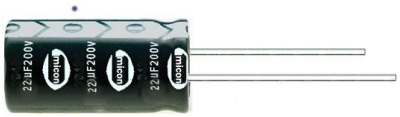
FGE series

Features



- Life time:+130℃3,000 hours,105℃ 12,000 hours
- Long life and high stability
- Suitable for electronic ballast, electronic energy saving lamp
- RoHS Compliant

Specifications

Item	Performance Characteristics	
Operating Temperature Range	-40~+130℃(160~400V_{dc})	-25~+130℃(450V_{dc})
Rate Voltage Range	160~450V_{dc}	
Capacitance Tolerance	±20%（M） (20℃,120Hz)	
Leakage current （+20℃,max.）	160~400V_{dc}	450V_{dc}
	I≤0.02CV+10（μA）	I≤0.03CV+10（μA）
	l : Leakage Current(μA), C: Nominal capacitance(uF), V: Rated Voltage(V)	
Dissipation factor （tanδ）	(120Hz，+20℃)	

Rated Voltage(V_{dc})	160	200	250	350	400	450
Tanδ(max)	0.15	0.15	0.15	0.20	0.20	0.20

Low Temperature Characteristics （120Hz）

Impedance ratio max.

Rate Voltage(V_{dc})	160	200	250	350	400	450
Z-25℃/ Z+20℃	3	3	3	5	5	6
Z-40℃/ Z+20℃	6	6	6	6	6	--

Endurance

After application of the rated DC voltage at 130℃ 3,000 hours or application of DC voltage with rated ripple current(the voltage peak is not more than rated voltage) at 105℃ 12,000 hours, measuring the parameters when the capacitors are restored to 20℃,the capacitors shall meet the requirements as below

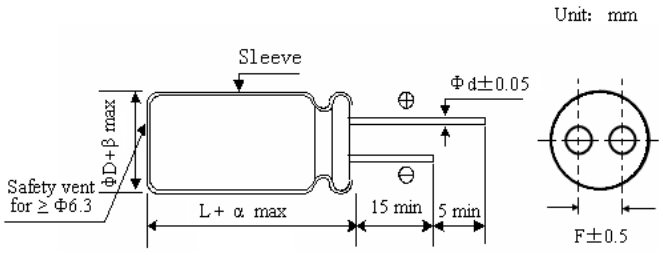
Capacitance Change : ≤±20% of the initial value
D.F(tanδ) : ≤200% of the initial specified value
Leakage Current : ≤The initial specified value

Shelf Life

The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for 1,000 hours at 105℃ without voltage application.

Capacitance Change : ≤±20% of the initial value
D.F(tanδ) : ≤200% of the initial specified value
Leakage Current : ≤200% of the initial specified value

Diagram of Dimensions



ΦD	8		10	13	16	18
Φd	0.5	0.6	0.6	0.6	0.8	0.8
F	3.5		5.0	5.0	7.5	7.5
ΦD	ΦD+0.5max					
L	L+2max					

Rated Ripple Current Multipliers

Frequency correction factor for ripple current

Freq(Hz) / CAP(Uf)	120	1K	10K	100K
160~450	0.50	0.80	0.90	1.00

FGE series

Standard ratings

WV (V_{dc})	Cap(μF)	Size ΦD×L(mm)	tanδ	Ripple current (mArms/105℃;100KHZ
160V(2C)	3.3	8×12	0.15	84
	4.7	8×12	0.15	91
	5.6	8×16	0.15	97
	6.8	8×16	0.15	104
	8.2	8×16	0.15	171
	10	8×16	0.15	237
	15	8×20	0.15	232
	22	10×20	0.15	475
	33	10×20	0.15	500
		13×21	0.15	522
	47	13×21	0.15	627
		13×25	0.15	660
	68	13×25	0.15	722
		16×21	0.15	722
	100	16×25	0.15	1064
		18×20	0.15	1064
	150	16×30	0.15	1292
		18×25	0.15	1292
	220	18×25	0.15	1300
200V(2D	2.8	8×12	0.15	76
	3.3	8×12	0.15	87
	4.7	8×12	0.15	95
	5.6	8×16	0.15	103
	6.8	8×16	0.15	112
	8.2	10×16	0.15	171
	10	10×16	0.15	237
	15	10×20	0.15	340
	22	10×20	0.15	475
		13×21	0.15	500
	33	13×21	0.15	570
	47	13×21	0.15	627
		13×25	0.15	660
	68	16×21	0.15	722
		16×25	0.15	760
	100	16×30	0.15	1121
		18×20	0.15	1064
	150	18×30	0.15	1360
	220	18×35	0.15	1615

WV (V_{dc})	Cap(μF)	Size ΦD×L(mm)	tanδ	Ripple current (mArms/105℃;100KHZ
250V(2E)	2.2	8×12	0.15	76
	2.8	8×12	0.15	86
	3.3	8×12	0.15	95
	4.7	8×16	0.15	114
	5.6	8×16	0.15	133
	6.8	8×16	0.15	152
	8.2	10×16	0.15	171
	10	10×16	0.15	252
		10×20	0.15	266
	15	10×20	0.15	361
	22	13×21	0.15	500
	33	13×21	0.15	580
		13×25	0.15	600
	47	13×25	0.15	684
		16×25	0.15	722
	68	16×30	0.15	807
		18×20	0.15	807
	100	16×30	0.15	1140
		18×30	0.15	1197
	150	18×35	0.15	1425
350V(2V)	1	8×12	0.20	61
	1.5	8×12	0.20	66
	1.8	8×12	0.20	74
	2.2	8×16	0.20	84
	2.8	8×16	0.20	91
	3.3	8×16	0.20	104
	4.7	8×20	0.20	123
	5.6	8×20	0.20	171
	6.8	10×16	0.20	209
		10×20	0.20	220
	8.2	10×20	0.20	226
		13×21	0.20	232
	10	10×20	0.20	266
		13×21	0.20	280
	15	13×21	0.20	380
		13×25	0.20	400
	22	13×21	0.20	500
		13×25	0.20	513
	33	16×21	0.20	600
		16×25	0.20	617
	47	16×25	0.20	722
		18×20	0.20	722
	68	16×30	0.20	807
		18×25	0.20	807
	100	18×35	0.20	1235

FGE series

Standard ratings

WV (V_{dc})	Cap(μF)	Size ΦD×L(mm)	tanδ	Ripple current (mArms/105℃;100KHZ
400V(2G)	1		0.20	
	1.5		0.20	
	1.8		0.20	
	2.2		0.20	
	2.8		0.20	
	3.3		0.20	
	4.7		0.20	
	5.6		0.20	
	6.8		0.20	
			0.20	
	8.2		0.20	
	10		0.20	
			0.20	
	15		0.20	
	22		0.20	
	33		0.20	
	47		0.20	
	68		0.20	
	100		0.20	

WV (V_{dc})	Cap(μF)	Size ΦD×L(mm)	tanδ	Ripple current (mArms/105℃;100KHZ
450V(2W)	1.5		0.20	84
	1.8		0.20	86
	2.2		0.20	91
	2.8		0.20	95
	3.3		0.20	104
	4.7		0.20	123
	5.6		0.20	171
	6.8		0.20	220
	8.2		0.20	250
	10		0.20	304
	15		0.20	400
	22		0.20	532
			0.20	532
	33		0.20	665
			0.20	665
	47		0.20	836
	68		0.20	950
	100		0.20	1400