

# CD11GES series

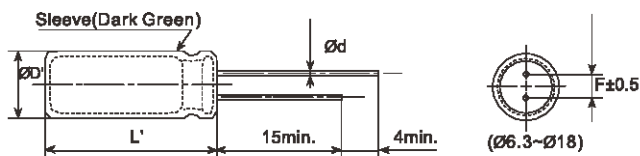
- Endurance: +130°C 3,000 hours +105°C 12,000 hours
- Withstand high temperature 130°C, miniaturized and long life
- Suitable for output circuit and input circuit of LED driving power, electronic ballast and electronic energy saving lamp.
- RoHS Compliant



## SPECIFICATIONS

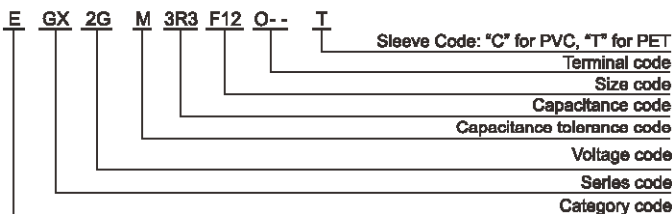
Items	Characteristics								
Category Temperature Range	-40~+130°C(160~ 450 V <sub>dc</sub> )				-40~+105°C(500 V <sub>dc</sub> )				
Rated Voltage Range	160~500 V <sub>dc</sub>								
Capacitance Tolerance	±20%(M) (at 20°C, 120Hz)								
Leakage Current	160~400 V <sub>dc</sub>	450~500 V <sub>dc</sub>			Where, I: Max.leakage current (μA),C:Nominal capacitance (μF), V: Rated voltage (V)				
	I≤0.02CV+10μA	I≤0.03CV+10μA			(at 20°C after 2 minutes)				
Dissipation Factor (tanδ)	Rated Voltage(V <sub>dc</sub> )	160	200	250	350	400	450	500	(at 20°C, 120Hz)
	tanδ (max.)	0.15	0.15	0.15	0.20	0.20	0.20	0.24	
Low Temperature Characteristics (Max. Impedance Ratio)	Rated Voltage(V <sub>dc</sub> )	160	200	250	350	400	450	500	(at 120Hz)
	Z(-25°C)/Z(+20°C)	3	3	3	5	5	6	6	
	Z(-40°C)/Z(+20°C)	6	6	6	6	6	9	15	
Endurance	The specifications listed below shall be met when the capacitors are restored to 20°C after DC voltage is applied for 3,000 hours (WV:160~450V) at 130°C or after DC voltage with the rated ripple current is applied for 12,000 hours at 105°C (500V: 10,000 hours), the peak voltage shall not exceed the rated voltage.								
	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°C after leaving them under no load at 105°C for 1,000 hours.								
	Capacitance Change	≤±20% of the initial value							
	D.F. (tanδ)	≤200% of the initial specified value							
	Leakage Current	≤200% of the initial specified value							

## DIMENSIONS[mm]



ØD	6.3	8	10	12.5	16	18
Ød	0.5	0.5	0.6	0.6	0.8	0.8
F	2.5	3.5	5.0	5.0	7.5	7.5
ØD'	ØD+0.5max.					
L'	L+2max.					

## PART NUMBERING SYSTEM



## RATED RIPPLE CURRENT MULTIPLIERS

Frequency correction factor for ripple current

Cap.(μF)	Freq.(Hz)	120	1k	10k	100k
	Cap.<33	0.40	0.70	0.90	1.00
Cap.≥33		0.50	0.80	0.90	1.00

Radial Type

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**STANDARD RATINGS**

WV (V <sub>dc</sub> )	Cap (μF)	Size ΦDxL(mm)	tanδ	Rated ripple current (mA <sub>rms</sub> /105°C,100kHz)
160(2C)	1	6.3*9	0.15	40
		6.3*12	0.15	45
	1.5	6.3*9	0.15	45
		6.3*12	0.15	50
	1.8	6.3*9	0.15	50
		6.3*12	0.15	55
	2.2	6.3*9	0.15	58
		6.3*12	0.15	61
	2.8	6.3*9	0.15	70
		6.3*12	0.15	78
	3.3	6.3*9	0.15	85
		6.3*12	0.15	92
	4.7	6.3*12	0.15	96
		8*12	0.15	100
	5.6	8*9	0.15	102
		8*12	0.15	107
	6.8	8*12	0.15	112
		8*16	0.15	115
	8.2	8*12	0.15	172
		8*16	0.15	189
10	8*12	0.15	255	
	8*16	0.15	300	
15	8*16	0.15	310	
	8*20	0.15	350	
22	10*16	0.15	450	
	10*20	0.15	500	
33	10*16	0.15	580	
	10*20	0.15	650	
47	10*20	0.15	750	
	12.5*20	0.15	1180	
100	12.5*25	0.15	1420	
	16*25	0.15	1890	
220	16*25	0.15	2370	
	18*25	0.15	2370	
200(2D)	1	6.3*9	0.15	55
		6.3*12	0.15	62
	1.5	6.3*9	0.15	62
		6.3*12	0.15	66
	1.8	6.3*9	0.15	66
		6.3*12	0.15	72
	2.2	6.3*9	0.15	72
		6.3*12	0.15	81
	2.8	6.3*9	0.15	84
		6.3*12	0.15	95
	3.3	6.3*12	0.15	112
		8*9	0.15	144
	4.7	8*12	0.15	160
		8*9	0.15	170
	5.6	8*12	0.15	190
		8*16	0.15	200
	8.2	8*16	0.15	220
		8*16	0.15	279
	10	8*16	0.15	300
		10*16	0.15	320
15	8*20	0.15	358	
	10*16	0.15	500	
22	10*20	0.15	525	
	10*20	0.15	650	
47	10*20	0.15	650	
	12.5*20	0.15	980	

WV (V <sub>dc</sub> )	Cap (μF)	Size ΦDxL(mm)	tanδ	Rated ripple current (mA <sub>rms</sub> /105°C,100kHz)
200(2D)	68	12.5*25	0.15	1300
		16*20	0.15	1300
	82	16*20	0.15	1380
		16*20	0.15	1420
	100	16*25	0.15	1494
		16*25	0.15	1890
150	16*30	0.15	1989	
	1	6.3*9	0.15	55
1.5		6.3*12	0.15	62
	1.8	6.3*9	0.15	62
2.2		6.3*12	0.15	66
	2.8	6.3*9	0.15	66
3.3		6.3*12	0.15	72
	4.7	6.3*9	0.15	72
5.6		6.3*12	0.15	72
	6.8	6.3*9	0.15	81
8.2		6.3*12	0.15	95
	10	6.3*12	0.15	112
15		8*12	0.15	160
	22	8*12	0.15	190
33		8*16	0.15	225
	47	8*16	0.15	288
56		8*20	0.15	320
	68	8*20	0.15	420
82		10*16	0.15	500
	100	10*20	0.15	550
150		12.5*16	0.15	760
	150	12.5*20	0.15	800
150		12.5*25	0.15	980
	150	12.5*25	0.15	1080
150		16*25	0.15	1368
	150	12.5*30	0.15	1500
150		16*30	0.15	1610
	150	16*35	0.15	2000
350(2V)		1	6.3*9	0.20
	6.3*12		0.20	64
	1.5	8*9	0.20	71
		8*12	0.20	75
	1.8	8*9	0.20	80
		8*12	0.20	85
	2.2	8*9	0.20	90
		8*12	0.20	95
	2.8	8*9	0.20	95
		8*12	0.20	100
	3.3	8*9	0.20	110
		8*12	0.20	118
	4.7	8*16	0.20	170
		8*16	0.20	200
	5.6	8*16	0.20	200
		8*20	0.20	252
	6.8	10*16	0.20	252
		8*20	0.20	288
	8.2	8*20	0.20	320
		10*20	0.20	350
10	10*20	0.20	450	
	12.5*20	0.20	650	
15	12.5*20	0.20	855	
	16*20	0.20	900	
22	16*20	0.20	1080	
	16*20	0.20	1080	

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■ STANDARD RATINGS

WV (Vdc)	Cap (μF)	Size ΦDxL(mm)	tanδ	Rated ripple current (mA rms/105°C, 100kHz)
350(2V)	68	18*20	0.20	1368
		18*25	0.20	1470
	82	18*25	0.20	1530
		18*30	0.20	1700
400(2G)	1	6.3*12	0.20	65
		8*12	0.20	72
	1.5	6.3*12	0.20	82
		8*12	0.20	90
	1.8	8*16	0.20	100
		8*9	0.20	90
	2.2	8*12	0.20	95
		8*16	0.20	120
	2.8	8*9	0.20	88
		8*12	0.20	100
	3.3	8*16	0.20	140
		10*16	0.20	130
	4.7	8*12	0.20	145
		8*16	0.20	140
	5.6	8*12	0.20	150
		10*16	0.20	180
	6.8	8*20	0.20	198
		10*16	0.20	220
	8.2	8*20	0.20	225
		10*16	0.20	250
	10	8*20	0.20	252
		10*16	0.20	265
	15	10*16	0.20	288
		10*20	0.20	294
	22	10*20	0.20	350
		12.5*20	0.20	550
	33	12.5*25	0.20	760
		16*20	0.20	760
	47	16*20	0.20	900
		16*25	0.20	1125
	56	16*30	0.20	1180
		18*25	0.20	1180
	68	18*25	0.20	1476
		18*30	0.20	1547
	100	18*40	0.20	1718

WV (Vdc)	Cap (μF)	Size ΦDxL(mm)	tanδ	Rated ripple current (mA rms/105°C, 100kHz)
450(2W)	1	6.3*12	0.20	80
		8*12	0.20	82
	1.5	8*12	0.20	88
		8*12	0.20	90
	2.2	8*16	0.20	96
		8*16	0.20	119
	3.3	8*16	0.20	128
		10*16	0.20	180
	4.7	10*20	0.20	250
		10*20	0.20	285
	6.8	10*20	0.20	280
		10*25	0.20	330
	8.2	12.5*20	0.20	450
		12.5*25	0.20	600
	10	16*20	0.20	730
		16*25	0.20	980
	15	16*35	0.20	1080
		18*25	0.20	1200
	22	18*30	0.20	1429
		18*35	0.20	1500
33	18*45	0.20	1666	
	47	12.5*20	0.24	320
500(2H)		12.5*25	0.24	336
	15	12.5*25	0.24	440
22		16*20	0.24	440
	33	12.5*35	0.24	560
47		16*25	0.24	560
	56	18*25	0.24	700
18*30		0.24	880	

Radial Type