CD11GES Series

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

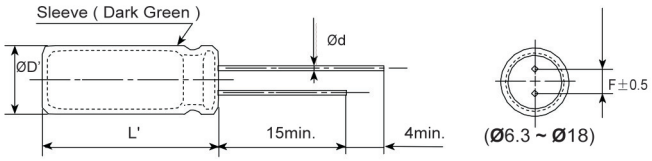
Miniaturized

CD11GE → CD11GES

◆ SPECIFICATIONS

Item	Characteristics								
Temperature Range	-40 ~ +130℃(160 ~ 400Vdc) -25 ~ +130℃(450Vdc) -25 ~ +105℃(500Vdc)								
Rated Voltage Range	160 ~ 500Vdc								
Capacitance Tolerance	±20%(M) (20℃, 120Hz)								
Leakage Current	160 ~ 400Vdc: I≦0.02CV+10μA; 450 ~ 500Vdc: I≦0.03CV+10μA. I : Leakage Current(μA), C : Nominal capacitance(μF), V : Rated Voltage (V) (20℃, 2minutes)								
Dissipation Factor (tanδ)	Rated Voltage(Vdc)	160	200	250	350	400	450	500	(20℃, 120Hz)
	tanδ (Max.)	0.15	0.15	0.15	0.20	0.20	0.20	0.24	
Temperature Characteristics (Max.Impedance Ratio)	Rate Voltage(Vdc)	160	200	250	350	400	450	500	(120Hz)
	Z(–25℃)/Z(+20℃)	3	3	3	5	5	6	6	
	Z(–40℃)/Z(+20℃)	6	6	6	6	6	--	--	
Endurance	After application of the rated DC voltage at 130℃ 3,000 hours(WV:160~450Vdc) or application of DC voltage with rated ripple current (the voltage peak is not more than rated voltage) at 105℃ 12,000 hours(WV:500V for 10,000 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							

◆ DIMENSIONS [mm]



ØD	6.3	8		10	12.5	16	18
Ød	0.5	0.5	0.6	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 NUMBER SYSTEM

E GX 2G M 3R3 G12 O-- T

- T: Sleeve Code: PVC is "C" PET is "T"
- O--: Terminal code
- G12: Size Code
- 3R3: Capacitance Code
- M: Capacitance tolerance code
- 2G: Voltage Code
- GX: Series Code
- E: Category

◆ RATED RIPPLE CURRENT MULTIPLIERS

Frequency correction factor for ripple current

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

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◆ STANDARD RATINGS

WV (V_{dc})	Cap (μF)	Size ΦD×L(mm)	tanδ	Ripple current (mArms/105℃,100 kHz)
160V(2C)	1	6.3×12	0.15	45
	1.5	6.3×12	0.15	50
	1.8	6.3×12	0.15	55
	2.2	6.3×12	0.15	61
	2.8	6.3×12	0.15	78
	3.3	6.3×12	0.15	92
	4.7	8×12	0.15	100
	5.6	8×12	0.15	107
	6.8	8×16	0.15	115
	8.2	8×16	0.15	189
	10	8×16	0.15	300
	15	8×20	0.15	350
	22	10×20	0.15	500
	33	10×20	0.15	650
	47	10×20	0.15	750
	68	12.5×20	0.15	1180
	100	12.5×25	0.15	1420
	150	16×25	0.15	1890
	220	18×25	0.15	2370
200V(2D)	1	6.3×12	0.15	62
	1.5	6.3×12	0.15	66
	1.8	6.3×12	0.15	72
	2.2	6.3×12	0.15	81
	2.8	6.3×12	0.15	95
	3.3	6.3×12	0.15	112
	4.7	8×12	0.15	160
	5.6	8×12	0.15	190
	6.8	8×16	0.15	220
	8.2	8×16	0.15	279
	10	8×16	0.15	300
		10×16	0.15	320
	15	8×20	0.15	358
	22	10×16	0.15	500
		10×20	0.15	525
	33	10×20	0.15	650
	47	12.5×20	0.15	980
	68	12.5×25	0.15	1300
		16×20	0.15	1300
	82	16×20	0.15	1380
	100	16×20	0.15	1420
		16×25	0.15	1494
	150	16×25	0.15	1890
		16×30	0.15	1989

WV (V_{dc})	Cap (μF)	Size ΦD×L(mm)	tanδ	Ripple current (mArms/105℃,100 kHz)
250V(2E)	1	6.3×12	0.15	62
	1.5	6.3×12	0.15	66
	1.8	6.3×12	0.15	72
	2.2	6.3×12	0.15	81
	2.8	6.3×12	0.15	95
	3.3	6.3×12	0.15	112
	4.7	8×12	0.15	160
	5.6	8×12	0.15	190
	6.8	8×16	0.15	225
	8.2	8×20	0.15	288
	10	8×20	0.15	320
	15	8×20	0.15	420
	22	10×16	0.15	500
		10×20	0.15	550
	33	12.5×16	0.15	760
		12.5×20	0.15	800
	47	12.5×20	0.15	980
	56	12.5×25	0.15	1080
	68	16×25	0.15	1368
	82	12.5×30	0.15	1500
	100	16×30	0.15	1610
	150	16×35	0.15	2000
350V(2V)	1	6.3×12	0.20	64
	1.5	8×12	0.20	75
	1.8	8×12	0.20	85
	2.2	8×12	0.20	95
	2.8	8×12	0.20	100
	3.3	8×12	0.20	118
	4.7	8×16	0.20	170
	5.6	8×16	0.20	200
	6.8	8×20	0.20	252
		10×16	0.20	252
	8.2	8×20	0.20	288
	10	8×20	0.20	320
		10×20	0.20	350
	15	10×20	0.20	450
	22	12.5×20	0.20	650
	33	12.5×20	0.20	855
		16×20	0.20	900
	47	16×20	0.20	1080
	68	18×20	0.20	1368
		18×25	0.20	1470
	82	18×25	0.20	1530
	100	18×30	0.20	1700

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◆ STANDARD RATINGS

WV (V_{dc})	Cap (μF)	Size ΦD×L(mm)	tanδ	Ripple current (mArms/105℃,100kHz)
400V(2G)	1.0	8×12	0.20	72
	1.5	8×12	0.20	90
		8×16	0.20	100
	1.8	8×12	0.20	95
		8×16	0.20	120
	2.2	8×12	0.20	100
		8×16	0.20	140
	2.8	8×16	0.20	145
	3.3	8×16	0.20	150
		10×16	0.20	180
	4.7	8×20	0.20	198
		10×16	0.20	220
	5.6	8×20	0.20	225
		10×16	0.20	250
	6.8	8×20	0.20	252
		10×16	0.20	265
	8.2	10×16	0.20	288
		10×20	0.20	294
	10	10×20	0.20	350
	15	12.5×20	0.20	550
	22	12.5×25	0.20	760
		16×20	0.20	760
	33	16×20	0.20	900
		16×25	0.20	1125
	47	16×30	0.20	1180
		18×25	0.20	1180
	56	18×25	0.20	1476
	68	18×30	0.20	1547
	100	18×40	0.20	1718

WV (V_{dc})	Cap (μF)	Size ΦD×L(mm)	tanδ	Ripple current (mArms/105℃,100kHz)
450V(2W)	1	8×12	0.20	82
	1.5	8×12	0.20	88
	1.8	8×12	0.20	90
	2.2	8×16	0.20	96
	2.8	8×16	0.20	119
	3.3	8×16	0.20	128
	4.7	10×16	0.20	180
	5.6	10×20	0.20	250
	6.8	10×20	0.20	265
	8.2	10×20	0.20	280
	10	10×25	0.20	330
	15	12.5×20	0.20	450
	22	12.5×25	0.20	600
		16×20	0.20	730
	33	16×25	0.20	980
	47	16×35	0.20	1080
		18×25	0.20	1200
	56	18×30	0.20	1429
	68	18×35	0.20	1500
	100	18×45	0.20	1666
500V(2H)	10	12.5×20	0.24	320
		12.5×25	0.24	336
	15	12.5×25	0.24	440
		16×20	0.24	440
	22	12.5×35	0.24	560
		16×25	0.24	560
	33	18×25	0.24	700
	47	18×30	0.24	880