

# CD11GE SERIES

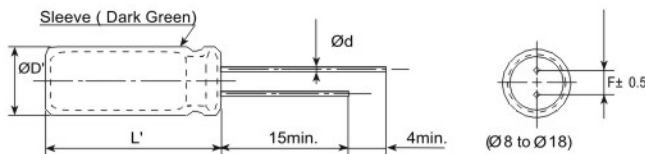
- Extremely long life+105°C12,000 hours,+130°C 3,000hours
- Especially designed for electronic ballast
- Withstand high temperature+130°C and high ripple current
- RoHS Compliant



## ◆ SPECIFICATIONS

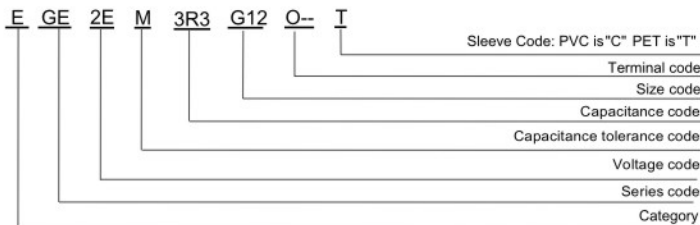
Items	Characteristics						
Category	-40 to +130°C(160 to 400V <sub>dc</sub> ) - 25 to +130°C(450V <sub>dc</sub> )						
Temperature Range							
Rated Voltage Range	160 to 450V <sub>dc</sub>						
Capacitance Tolerance	±20%(M) (at 20°C, 120Hz)						
Leakage Current	160 to 400V <sub>dc</sub>	450V <sub>dc</sub>		Where, I : Max. leakage current (µ A), C : Nominal capacitance (µ F), V : Rated voltage (V)			
	I ≤ 0.02CV+10µ A	I ≤ 0.03CV+10µ A		(at 20°C after 2 minutes)			
Dissipation Factor (tan δ)	Rated voltage (V <sub>dc</sub> )	160V	200V	250V	350V	400V	450V
	tan δ (Max.)	0.08					0.10
Low Temperature Characteristics (Max. Impedance Ratio)	Rated voltage (V <sub>dc</sub> )	160V	200V	250V	350V	400V	450V
	Z(-25°C)/Z(+20°C)	3	3	3	5	5	6
	Z(-40°C)/Z(+20°C)	6	6	6	6	6	--
	(at 120Hz)						
Endurance	After application of the rated DC voltage at 130°C 3,000hours or application of DC voltage with rated ripple current at 105°C 12,000hours ,the capacitors shall meet the requirements as below.						
	Capacitance change	≤ ±20% of the initial value					
	D.F. (tan δ)	≤ 200% of the initial specified value					
	Leakage current	≤ The initial specified value					
Shelf Life	The following specification shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000hours at 105°C without voltage applied.						
	Capacitance change	≤ ±20% of the initial value					
	D.F. (tan δ)	≤ 200% of the initial specified value					
	Leakage current	≤ 500%The initial specified value					

## ◆ DIMENSIONS [mm]



Ø D	8	10	12.5	16	18
Ø d	0.6	0.6	0.6	0.8	0.8
F	3.5	5.0	5.0	7.5	7.5
Ø D'	Ø D+0.5max.				
L'	L+2max.				

## ◆ PART NUMBERING SYSTEM



## ◆ RATED RIPPLE CURRENT MULTIPLIERS

Frequency correction factor for ripple current (Hz)

Freq.(Hz)	120	1K	10K	100K
WV(Vdc)				
160-450	0.5	0.8	0.9	1.0

The endurance of capacitors is shorted with internal heating produced by ripple current at the rate of halving the lifetime with every 5°C rise. When long life performance is required in actual use, the rms ripple current has to be reduced.

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◆ STANDARD RATINGS

Rated Voltage		160V(2C)									
μF	Φ D	Φ 8		Φ 10		Φ 12.5		Φ 16		Φ 18	
	3.3		8x12	88							
4.7				10x12	96						
5.6		8x16	102								
6.8		8x16	110								
8.2				10x16	180						
10				10x16	250						
15				10x16	320						
22				10x20	500						
33						12.5x20	600				
47						12.5x25	660				
68								16x25	860		
100								16x25	1120		
150										18x30	1360
200										18x35	1400

Rated Voltage		200V(2D)									
μ F	Φ D	Φ 8		Φ 10		Φ 12.5		Φ 16		Φ 18	
	2.8		8x12	80							
3.3		8x12	92								
4.7				10x12	100						
5.6		8x16	108								
6.8		8x16	118								
8.2				10x16	180						
10				10x17	250						
15				10x20	420						
22						12.5x20	560				
33						12.5x20	600				
47						12.5x25	660				
68								16x25	860		
100								16x30	1120		
150										18x35	1360
220											

Rated Voltage		250V(2E)									
μ F	Φ D	Φ 8		Φ 10		Φ 12.5		Φ 16		Φ 18	
	1.0										
1.5											
1.8											
2.2		8x12	80								
2.8				10x12	90						
3.3				10x12	100						
4.7				10x12	120						
5.6				10x16	140						
6.8				10x16	160						
8.2				10x16	180						
10				10x16	265						
				10x20	280						
15						12.5x20	450				
22						12.5x20	560				
33						12.5x25	600				
47								16x25	720		
68								16x30	920		
100										18x30	1200
150											

▲ Case Size (Φ D x L)

▲ Ripple Current(mArms/105°C,100KHz)

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◆ STANDARD RATINGS

Rated Voltage		350V(2V)									
μF	Φ D	Φ 8		Φ 10		Φ 12.5		Φ 16		Φ 18	
	1.0		8x12	64							
1.5				10x12	70						
1.8				10x16	78						
2.2				10x16	88						
2.8				10x16	96						
3.3				10x16	110						
4.7				10x20	130						
5.6						12.5x20	180				
6.8						12.5x20	220				
8.2						12.5x20	280				
10						12.5x20	320				
15						12.5x25	400				
22								16x25	560		
33								16x30	660		
47										18x30	860
68										18x40	960

Rated Voltage		400V(2G)									
μ F	Φ D	Φ 8		Φ 10		Φ 12.5		Φ 16		Φ 18	
	1.0				10x12	72					
1.5				10x12	84						
1.8				10x16	90						
2.2				10x16	92						
2.8				10x16	100						
3.3				10x16	110						
4.7				10x20	130						
5.6						12.5x20	180				
6.8						12.5x20	220				
8.2						12.5x20	280				
10						12.5x20	320				
15						12.5x25	420				
22								16x25	560		
33								16x30	640		
47										18x35	880
68										18x40	1000

Rated Voltage		450V(2W)									
μ F	Φ D	Φ 8		Φ 10		Φ 12.5		Φ 16		Φ 18	
	1.0										
1.5				10x12	88						
1.8				10x16	92						
2.2				10x16	96						
2.8				10x16	100						
3.3				10x16	110						
4.7				10x20	130						
5.6						12.5x20	180				
6.8						12.5x20	220				
8.2						12.5x20	280				
10						12.5x20	320				
15						12.5x25	420				
22								16x25	580		
33								16x30	700		
47										18x30	860
68										18x40	1000
100										18x50	1200
150											

▲ Case Size (Φ D x L)

▲ Ripple current(mArms/105°C,100KHz)