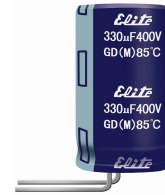




GD Series

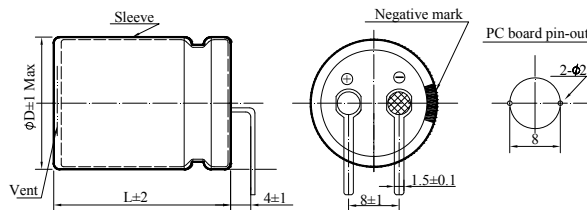
- For $\Phi 22$, $\Phi 25$, suitable for horizontal mounting to assure flat and low-profile design



SPECIFICATIONS

Item	Performance Characteristics
Category Temperature Range	-25 ~ +85°C
Working Voltage Range	160 ~ 450Vdc
Capacitance Range	82 ~ 1,200 μ F
Capacitance Tolerance	$\pm 20\%$ (at 25°C and 120Hz)
Dissipation Factor (tan δ) (at 25°C, 120Hz)	Rated Voltage (V) 160 ~ 450
	tan δ (Max) 0.15
The above value should be increased by 0.02 for every additional 1000 μ F	
Leakage Current	I=0.02CV or 3000 μ A, whichever is smaller I : Leakage current (μ A) C : Rated capacitance (μ F) V : Rated voltage (V) Impress the rated voltage for 5 minutes
Low Temperature Characteristics Impedance Ratio(MAX)	Rated voltage (V) 160 ~ 250 400 450
	Z(-25°C)/Z(+20°C) 4 4 8 (at 120Hz)
Endurance	The following specifications shall be satisfied when the capacitors are restored to 25°C after subjected to DC voltage with the rated ripple current is applied for 2,000 hours at 85°C.
	Capacitance change $\cong \pm 20\%$ of the initial value
	Dissipation factor(tan δ) $\cong 200\%$ of the specified value
Shelf Life	The following requirements shall be satisfied when the capacitor are restored to 25°C after the rated voltage applied for 1,000 hours at 85°C without voltage applied.
	Capacitance change $\cong \pm 15\%$ of the initial value
	Dissipation factor(tan δ) $\cong 150\%$ of the specified value
Leakage current	$\cong 200\%$ of the specified value
	Others

DIMENSIONS (mm)



PART NUMBER SYSTEM(Example : 450V 82 μ F)

G D 2 W 8 2 0 M R N 2 0 3 1

Special Request

Size code(2031 : 20×31)

Terminal length code

Lead forming Type code

Capacitance tolerance code(M: $\pm 20\%$)

Capacitance code (82 μ F)

Voltage code (450V)

Series code (GD)



GD Series

◆ Case size & Permissible rated ripple current (mA rms) at 85°C / 120Hz

Vdc ΦD uF	160						Vdc ΦD uF	200					
	Φ 20		Φ22		Φ 25			Φ 20		Φ22		Φ 25	
	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC		Φ D×L	RC	ΦD×L	RC	ΦD×L	RC
220	20×25	850	22×25	920			220						
270	20×25	950	22×25	1000			270	20×30	1320				
330	20×25	1150	22×25	1165			330	20×30	1490				
390	20×30	1325	22×30	1340			390	20×35	1660				
470	20×35	1560	22×30	1625			470	20×40	1930	22×35	1800		
560	20×40	1735	22×35	1830	25×30	1955	560	20×45	2000	22×40	1960		
680	20×45	2085	22×40	2100	25×35	2185	680	20×50	2300	22×45	2430	25×35	2680
820	20×50	2300	22×45	2455	25×40	2530	820			22×50	2800	25×40	2800
1000	20×60	2560	22×50	2615	25×45	2900	1000			22×60	3000	25×45	3120
1200			22×55	3100	25×50	3125	1200					25×60	3440

Vdc ΦD uF	250						Vdc ΦD uF	400					
	Φ 20		Φ22		Φ 25			Φ 20		Φ22		Φ 25	
	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC		ΦD×L	RC	ΦD×L	RC	ΦD×L	RC
82							82	20×30	780				
100							100	20×30	900				
120							120	20×35	1020				
150							150	20×40	1170	22×35	1200		
180							180	20×50	1300	22×40	1380	25×35	1250
220	20×30	1050					220			22×45	1550	25×40	1560
270	20×35	1155	22×30	1170			270			22×60	1700	25×45	1700
330	20×40	1400	22×30	1495			330					25×50	1900
390	20×45	1625	22×35	1700			390					25×60	2150
470	20×50	1800	22×40	1955	25×30	2000	470						
560	20×55	2100	22×45	2150	25×35	2185	560						
680	20×60	2200	22×50	2290	25×40	2310	680						
820			22×60	2655	25×45	2760	820						

Vdc ΦD uF	450					
	Φ 20		Φ22		Φ 25	
	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC
82	20×30	800	22×25	815		
100	20×30	950	22×30	1000		
120	20×35	1100	22×30	1125		
150	20×40	1200	22×35	1250	25×30	1280
180	20×45	1325	22×40	1350	25×35	1385
220	20×50	1600	22×50	1625	25×40	1650
270	20×60	1750	22×60	1750	25×50	1750
330					25×55	1950

◆ RIPPLE CURRENT MULTIPLIERS

Frequency Multipliers

Vdc	Frequency (Hz)						
	50	60	120	300	1K	10K	50K
160 ~ 250	0.81	0.85	1.00	1.17	1.32	1.45	1.50
400 ~ 450	0.77	0.82	1.00	1.16	1.30	1.41	1.43