DC "Link" Filter Capacitor

The DCG is a metallized polypropylene film capacitor designed to handle the heavy load of power applications, typical in DC Link applications. The packaging incorporates mounting used in typical design, but can be customized to meet specific customer needs.





FEATURES

- Long Life > 100,000 Hours
- Cost Effective
- Low ESL & ESR
- High RMS Current Capability
- High Surge Voltage Capability, 1.5 x VDC 10s
- Surge Curent 1.5 x lpk
- Ground Test: 5 kVDC for 10s
- Reference Mil-Std 202 & IEC 61071
- Flexible Construction
- RoHS compliant

STANDARD CONFIGURATION

- Male Screw Terminal
- Female Screw Terminal
- Low ESL Bus Mount Terminal
- IGBT Direct Mount Terminal

DAWNCAP Specification Summary

DCGSERIES Medium Power Film

Capacitance Range

 $380\mu F$ to $17,100\mu F$

Capacitance Tolerance

Standard capacitance tolerance is $\pm 10\%$. Tolerances of $\pm 5\%$ and $\pm 20\%$ are available on request.

Operating Temperature Range

-40°C to +85°C Hot Spot Temperature Calculation: H.S. = Tamb + (I x I x Rs) x Rth. Failure Rate: 100FIT

Enclosure/Construction

Metallized Polypropylene encapsulated in aluminum housing. Bus bar electrical mounting for low ESL & ESR.

Voltage Rating

700 VDC to 3000 VDC

Characteristics





Quality Control

Capacitors are tested 100% for:

- Capacitance
 - ToleranceDissipation Factor
 - Dielectric withstanding voltage
 - Insulation Resistance
- Equivalent Series Resistance (ESR)

Process and inspection data are maintained on file and available on special request.

Environmental (Complies with IEC 61071)

Parameter	Method	Condition
Vibration	204	D
Shock	213	I
Humidity	106	-
Thermal Shock	107	A
Life	108	F



Dissipation Factor

Polypropylene has an intrinsic dissipation factor of less than 0.00021 over the operating temperature range and frequencies to 1MHz.



DAWNCAP

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Detail Data

PART	CAP	VDC	"X"	"Y"	"Z"	ESR	ESL	Fres	I PEAK	dv/dt	lms	Rth
NUMBER	μF	VDC	(mm)	(mm)	(mm)	mOhms	ᇞ	kHz	<u>kAMPS</u>	(VA/s)	AMPS	° C/W
DCG-BE0688K	6800	700	95	330	320	0.15	<60	11.1	44	6.5	300	0.70
DCG-BE0928K	9200	700	120	330	320	0.20	<60	9.6	44	4.8	300	0.75
DCG-BE1388K	13800	700	120	330	470	0.15	<60	7.8	66	4.7	400	0.50
DCG-BE1718K	17100	700	145	330	470	0.20	<60	7.0	66	3.8	400	0.55
DCG-BJ0448K	4400	900	95	330	320	0.20	<60	13.8	70	16	300	0.65
DCG-BJ0608K	6000	900	120	330	320	0.22	<60	11.8	72	12	300	0.70
DCG-BJ0908K	9000	900	120	330	470	0.16	<60	9.6	100	11	400	0.45
DCG-BJ1148K	11400	900	145	330	470	0.20	<60	8.6	100	9	400	0.50
DCG-BM0308K	3000	1100	95	330	320	0.25	<60	16.8	60	20	300	0.65
DCG-BM0408K	4000	1100	120	330	320	0.31	<60	14.5	60	15	300	0.70
DCG-BM0608K	6000	1100	120	330	470	0.20	<60	11.8	90	15	400	0.45
DCG-BM0758K	7500	1100	145	330	470	0.23	<60	10.6	90	12	400	0.50
DCG-BN0258K	2500	1200	95	330	320	0.28	<60	18.4	55	22	300	0.65
DCG-BN0348K	3400	1200	120	330	320	0.34	<60	15.8	56	16	300	0.70
DCG-BN0518K	5100	1200	120	330	470	0.22	<60	12.9	84	16	400	0.45
DCG-BN0658K	6500	1200	145	330	470	0.26	<60	11.4	84	13	400	0.50
DCG-BT0148K	1400	1600	95	330	320	0.40	<60	24.5	40	28	250	0.65
DCG-BT0198K	1900	1600	120	330	320	0.47	<60	21.0	40	21	250	0.70
DCG-BT0288K	2800	1600	120	330	470	0.32	<60	17.4	60	21	350	0.45
DCG-BT0368K	3600	1600	145	330	470	0.37	<60	15.3	60	17	350	0.50
DCG-CA0907K	900	2000	95	330	320	0.55	<60	30.6	34	37	220	0.65
DCG-CA0128K	1200	2000	120	330	320	0.63	<60	26.0	32	27	220	0.70
DCG-CA0188K	1800	2000	120	330	470	0.42	<60	21.7	48	26	300	0.45
DCG-CA0238K	2300	2000	145	330	470	0.48	<60	19.2	48	21	300	0.50
DCG-CD0387K	380	3000	95	330	320	0.60	<60	47.1	11	28	170	0.70
DCG-CD0527K	520	3000	120	330	320	0.78	<60	40.3	11	21	170	0.60
DCG-CD0787K	780	3000	120	330	470	0.52	<60	32.9	16	20	240	0.40
DCG-CD0997K	990	3000	145	330	470	0.64	<60	29.2	16	16	210	0.50



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Additional Information

DAWNCAP

The DCG series uses the company's proven Unlytictechnology which significantly reduces weight and size optimized for DC power conversion. Additionally, the product incorporates traditional dry film "self-healing" properties, providing long life and reliability.

How to Order

TYPE Metallized Polypropylene		DCG
STYLE 1=Male Screw, 2=Female Screw	\rightarrow	Α
VOLTAGE DC Voltage Rating: BE=700VDC, BJ=900VDC, BM=1100VDC, BN=1200VDC, BT=1600VDC, CA=2000VDC, CD=3000VDC	→	BJ
CAPACITANCE IN PICOFARADS The first two digits are significant, the third represents the number of zeros (e.g 448=4,400,000,000pF)	→	448
TOLERANCE Standard tolerance is $\pm 10\%$. Tolerances of $\pm 5\%$ and $\pm 20\%$ are available upon request.		K

