



CRC NEW ENERGY

APPROVAL SHEET

TO: 直流支撑电容 50uF ± 10% 800V

Main Materials		MARKING & OUTLINE DRAWING
Construction	Materials	
Dielectric	Metallized Polypropylene Film	
Terminal	Tinned copper wire/plate	
Filling	Flame-retardant epoxy resin , white	
Case	Flame-retardant plastic case, grey	

Part No.	TYPE	Dimensions (mm)							NOTE
		W	H	T	P	P1	L	ΦD	
FC6038	MKP-FC50μFK800VDC	57.5	45	30	52.5	20.3	6	1.2	

CUSTOMER CONFIRMATION			CRC OFFER		
STAMP	APPROVED BY	CHECKED BY	STAMP	APPROVED BY	PREPARED BY
					田星月
DATE			DATE	2019-05-03	

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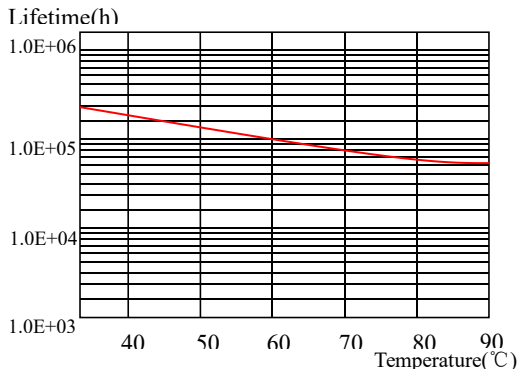
CRC-BDE-08

Technical Data

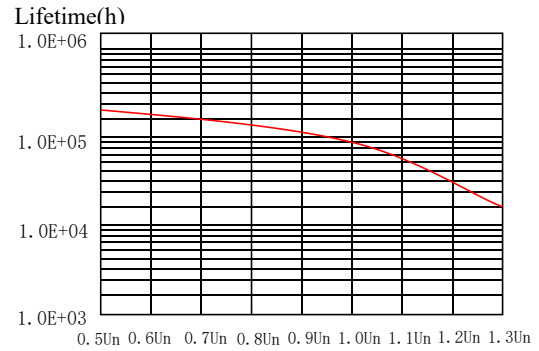
Items	Symbols	Values
Rated capacitance	C_N	$50\mu\text{F} \pm 10\%$
Rated voltage	U_N	800V.DC
Non-recurrent surge voltage	U_s	1300V.DC
Maximum current	I_{rms}	20A
Maximum peak current	\hat{I}	1000A
Maximum surge current	I_s	3000A
Series resistance	R_s	$\leq 4.8\text{m}\Omega$
Tangent of the loss	$\tan \delta$	$\leq 0.0015(1\text{KHz})$
Insulation Resistance	$C \times R_{is}$	$\geq 5000\text{S}$
Self inductance	L_e	$\leq 25\text{nH}$
Lowest operating temperature	Θ_{min}	-40°C
Maximum operating temperature	Θ_{max}	105°C
Operating humidity	RH	0~95%
Storage temperature	$\Theta_{storage}$	105°C
Service life		100000h
At $\Theta_{hotspot}$		$\leq 85^\circ\text{C}$
Failure quota		$< 100\text{Fit}$
Test data		
Voltage test between terminals	V_{tt}	1200V.DC/10S
A.C. voltage test between terminals and case	V_{t-c}	—
Operating altitude		2000m (max)
Terminal tightening torque		—
Bottom tightening torque		—
Weight		—

Electrical Characteristics of Film Capacitor

1. Lifetime Expectancy

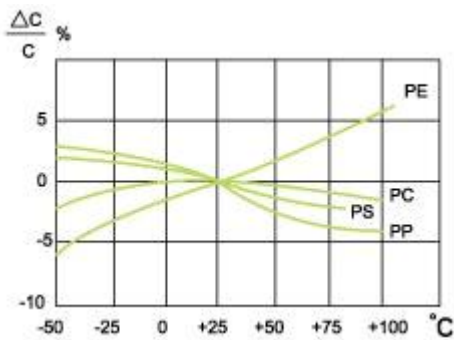


Life time Expectancy of charge temperature

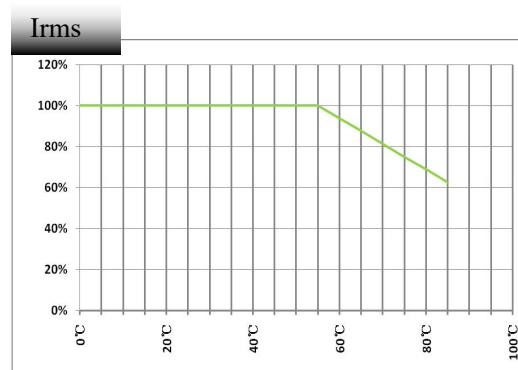


Life time Expectancy of charge voltage

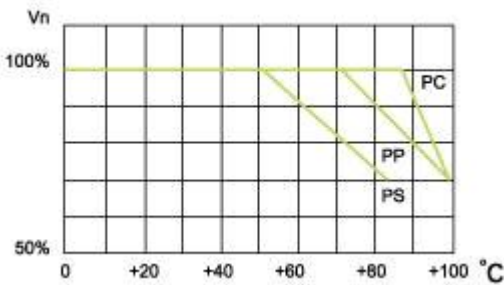
2. Temperature Characteristics



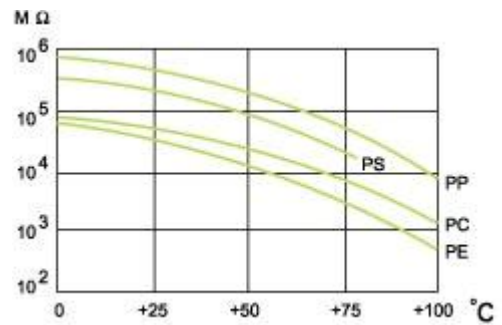
Capacitance vs. Temperature



Operation current vs. Temperature

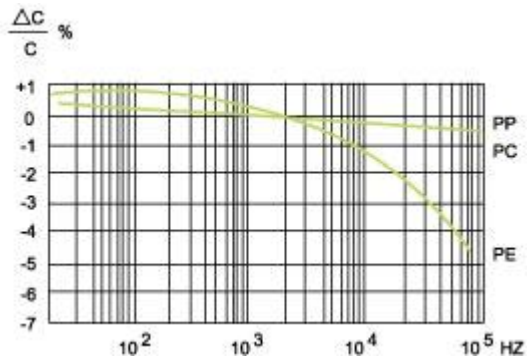


Operation voltage vs. Temperature

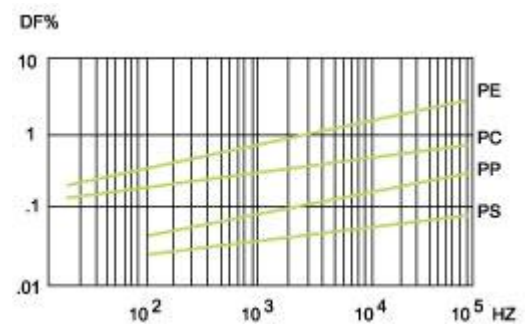


(CR value) IR vs. Temperature

3. Frequency Characteristics



Capacitance vs. Frequency



Dissipation Factor vs. Frequency