

FPCAP Functional Polymer Aluminum Solid Electrolytic Capacitors

R5 series

● Features

By using Functional Polymer cathode, Frequency & Temp. characteristics are greatly improved.

- Low ESR at a high frequency range.
- High ripple current capability.
- Long life and high reliability.

● Applications

- Switching Power Supply and DC/DC Converter.
- Buck up Power Supplies of CPU (VRM etc.)
- Miniature high Power Supply.

● Environmental Correspondence

- Any environmental hazardous substances are not used.
- The lead free of terminal plating (Sn 100%)

● Specifications

Items	Characteristics	
	R5	
Operating Temp. Range	- 55 to + 105°C	
Rated Voltage Range	2.5 to 6.3V-dc	
Capacitance Range	390 to 1500μF	
Capacitance Tolerance	± 20% (M)	
Endurance	Condition	105°C 2000Hrs at rated voltage
	Capacitance	Within ± 20% of the value before test
	Leakage Current	Not to exceed the value specified
	tan δ	Not to exceed 150% of the value specified
Failure Rate	0.1% / 1000Hrs. Max (60%CL)	

Ultra Low ESR

Lead-free

RoHS Compliance

ESR 5mΩ



● Size List

Cap. [μF]	[φD×L]			
	R.V.(S.V.) [M]	2.5 (2.8)	4.0 (4.6)	6.3 (7.2)
390				8×11.5
470				
560	8×11.5	8×11.5		
680	8×11.5			10×12.5
820	8×11.5	10×12.5		10×12.5
1000	8×11.5			
1200		10×12.5		
1500	10×12.5			

● Dimensions



[Unit : mm]

φD×L	φd	P	α
8×11.5	0.6	3.5	1.5
10×12.5	0.6	5.0	1.5

● Part number & Specifications

Rated Voltage (V)	Rated Capacitance (μF, 120Hz)	Part Number		Leakage Current * (μA, 2 min)	tanδ (120Hz)	ESR (mΩ, 100kHz)	Rated Ripple Current (mA, r.m.s.)	Case Size φD×L(mm)
		NICHICON	FPCAP					
2.5	560	RR50E561MDN1□□	FP-2R5RE561M-R5□□	350	0.15	5	6630	8 × 11.5
	680	RR50E681MDN1□□	FP-2R5RE681M-R5□□	425	0.15	5	6630	8 × 11.5
	820	RR50E821MDN1□□	FP-2R5RE821M-R5□□	513	0.15	5	6630	8 × 11.5
	1000	RR50E102MDN1□□	FP-2R5RE102M-R5□□	625	0.15	5	6630	8 × 11.5
	1500	RR50E152MDN1□□	FP-2R5RE152M-R5□□	938	0.15	5	7220	10 × 12.5
4.0	560	RR50G561MDN1□□	FP-4R0RE561M-R5□□	560	0.15	5	6630	8 × 11.5
	820	RR50G821MDN1□□	FP-4R0RE821M-R5□□	820	0.15	5	7220	10 × 12.5
	1200	RR50G122MDN1□□	FP-4R0RE122M-R5□□	1200	0.15	5	7220	10 × 12.5
6.3	390	RR50J391MDN1□□	FP-6R3RE391M-R5□□	614	0.15	5	6630	8 × 11.5
	680	RR50J681MDN1□□	FP-6R3RE681M-R5□□	1071	0.15	5	7220	10 × 12.5
	820	RR50J821MDN1□□	FP-6R3RE821M-R5□□	1292	0.15	5	7220	10 × 12.5

* In case of some doubt about measured values, measure after applying rated voltage for 120 minutes at 105°C.

● Frequency Characteristics



● Part Number (EX) 4V, 560μF

R	R5	0G	561	M	DN	1	
Type	Series name	Rated Voltage	Rated Capacitance	Capacitance Tolerance	Configuration	Control code	Lead Forming

(CG: Cut lead (Bulk)
 KX: φ8, 3.5mm pitch taping
 PX: φ8, 5.0mm pitch taping
 PH: φ10, 5.0mm pitch taping)

Mouser Electronics

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