



**THE DATASHEET OF  
RPS1H220MCN1GS**



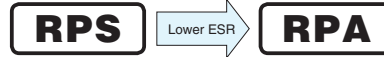
# RPS / RPA

Standard  
(φ6.3, φ8, φ10)



- High voltage (to 63V), Low ESR, High ripple current.
- Load life of 2000 / 5000 hours at 105°C.
- SMD type : Lead free reflow soldering condition at 260°C peak correspondence.
- Compliant to the RoHS directive (2011/65/EU,(EU)2015/863).

# FPCAP



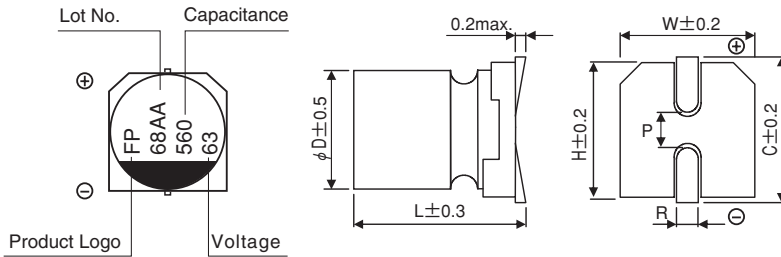
## Specifications

Item	Performance Characteristics	
Category Temperature Range	-55 to +105°C	
Rated Voltage Range	2.5 to 63V	
Rated Capacitance Range	8.2 to 1500μF	
Capacitance Tolerance	±20% at 120Hz, 20°C	
Tangent of loss angle (tan δ)	Less than or equal to the specified value at 120Hz, 20°C	
ESR (※1)	Less than or equal to the specified value at 100kHz, 20°C	
Leakage Current (※2)	Less than or equal to the specified value. After 2 minutes' application of rated voltage at 20°C	
Endurance	Test condition	105°C, rated voltage 2000 / 5000Hrs.
	Capacitance change	Within ±20% of initial value before test
	tan δ	150% or less than the initial specified value
	ESR(※1)	150% or less than the initial specified value
	Leakage current (※2)	Less than or equal to the initial specified value

※1 ESR should be measured at both of the terminal ends closest where the terminals protrude through the plastic platform.

※2 Conditioning : If any doubt arises, measure the leakage current after the voltage treatment of applying DC rated voltage continuously to the capacitor for 120 minutes at 105°C.

## Dimensions



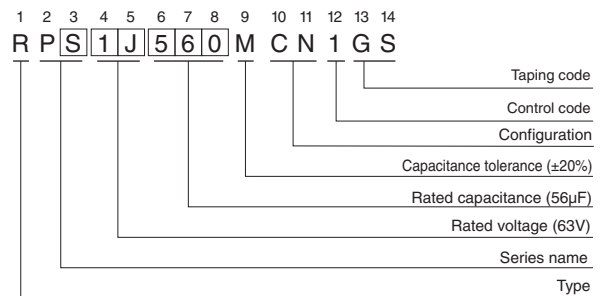
(mm)					
φD×L	W	H	C	R	P
6.3×5.7	6.5	6.5	7.2	0.5 to 0.9	2.1
8×6.7	8.3	8.3	9.0	0.8 to 1.1	3.2
8×11.7	8.3	8.3	9.0	0.8 to 1.1	3.2
10×7.7	10.3	10.3	11.0	0.8 to 1.1	4.6
10×12.4	10.3	10.3	11.0	0.8 to 1.1	4.6

### Frequency coefficient of rated ripple current

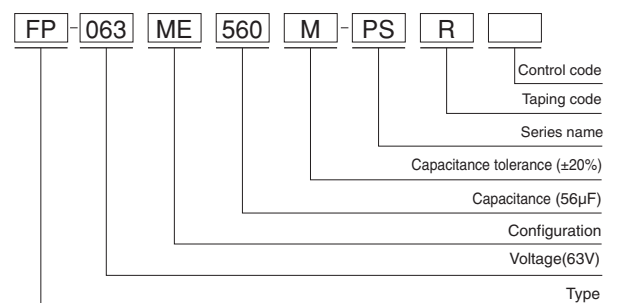
Frequency	120 Hz	1 kHz	10 kHz	100 kHz	300 kHz
Coefficient	0.10	0.45	0.50	1.00	1.00

### Type numbering system (Example : 63V 56μF)

#### Nichicon part number



#### FPCAP part number



● Dimension table in next page.

# RPS / RPA

## ■ Dimensions

Rated Voltage (V) (code)	Surge Voltage (V)	Rated Capacitance (μF)	Case Size φDxL (mm)	tan δ	Leakage Current (μA) (at 20°C after 2 minutes)	ESR (mΩ) (20°C/100kHz)	Rated Ripple Current (mAmps) (105°C/100kHz)	NICHICON	FPCAP		
2.5 (0E)	2.8	680	8x11.7	0.12	425	13	4500	RPS0E681MCN1GS	FP-2R5ME681M-PSR		
		1500	10x12.4	0.12	937	10	5500	RPS0E152MCN1GS	FP-2R5ME152M-PSR		
4.0 (0G)	4.6	100	6.3x5.7	0.12	80	35	2200	RPS0G101MCN1GS	FP-4R0ME101M-PSR		
		220	8x6.7	0.12	176	30	2700	RPS0G221MCN1GS	FP-4R0ME221M-PSR		
		330	8x6.7	0.12	264	30	2700	RPS0G331MCN1GS	FP-4R0ME331M-PSR		
		470	10x7.7	0.12	376	22	3800	RPS0G471MCN1GS	FP-4R0ME471M-PSR		
		560	8x11.7	0.12	448	13	4500	RPS0G561MCN1GS	FP-4R0ME561M-PSR		
		560	8x11.7	0.12	448	9	5400	RPA0G561MCN1GS	FP-4R0ME561M-PAR		
		680	10x7.7	0.12	544	22	3800	RPS0G681MCN1GS	FP-4R0ME681M-PSR		
		1200	10x12.4	0.12	960	12	5500	RPS0G122MCN1GS	FP-4R0ME122M-PSR		
6.3 (0J)	7.2	82	6.3x5.7	0.12	103	35	2200	RPS0J820MCN1GS	FP-6R3ME820M-PSR		
		150	8x6.7	0.12	189	30	2600	RPS0J151MCN1GS	FP-6R3ME151M-PSR		
		180	8x6.7	0.12	226	30	2600	RPS0J181MCN1GS	FP-6R3ME181M-PSR		
		330	10x7.7	0.12	415	22	3600	RPS0J331MCN1GS	FP-6R3ME331M-PSR		
		470	8x11.7	0.15	592	15	4300	RPS0J471MCN1GS	FP-6R3ME471M-PSR		
		470	10x7.7	0.12	592	18	4300	RPA0J471MCN1GS	FP-6R3ME471M-PAR		
		560	8x11.7	0.15	705	14	4400	RPS0J561MCN1GS	FP-6R3ME561M-PSR		
		680	10x12.4	0.15	642	13	5200	RPS0J681MCN1GS	FP-6R3ME681M-PSR		
		820	10x12.4	0.15	774	12	5500	RPS0J821MCN1GS	FP-6R3ME821M-PSR		
		1000	10x12.4	0.15	945	12	5500	RPS0J102MCN1GS	FP-6R3ME102M-PSR		
10 (1A)	11.5	47	6.3x5.7	0.12	94	40	2100	RPS1A470MCN1GS	FP-010ME470M-PSR		
		56	6.3x5.7	0.12	112	40	2100	RPS1A560MCN1GS	FP-010ME560M-PSR		
		120	8x6.7	0.12	240	30	2600	RPS1A121MCN1GS	FP-010ME121M-PSR		
		270	10x7.7	0.12	540	25	3500	RPS1A271MCN1GS	FP-010ME271M-PSR		
		330	8x11.7	0.15	660	17	4000	RPS1A331MCN1GS	FP-010ME331M-PSR		
		330	10x7.7	0.12	660	20	3600	RPA1A331MCN1GS	FP-010ME331M-PAR		
16 (1C)	18.4	560	10x12.4	0.15	840	13	5300	RPS1A561MCN1GS	FP-010ME561M-PSR		
		33	6.3x5.7	0.10	211	40	1700	RPS1C330MCN1GS	FP-016ME330M-PSR		
		39	6.3x5.7	0.10	124	45	2000	RPS1C390MCN1GS	FP-016ME390M-PSR		
		39	6.3x5.7	0.10	124	24	2500	RPA1C390MCN1GS	FP-016ME390M-PAR		
		56	8x6.7	0.10	179	40	2300	RPS1C560MCN1GS	FP-016ME560M-PSR		
		82	8x6.7	0.10	262	40	2300	RPS1C820MCN1GS	FP-016ME820M-PSR		
		100	10x7.7	0.10	320	30	3200	RPS1C101MCN1GS	FP-016ME101M-PSR		
		150	10x7.7	0.10	480	30	3200	RPS1C151MCN1GS	FP-016ME151M-PSR		
		180	8x11.7	0.12	576	20	3700	RPS1C181MCN1GS	FP-016ME181M-PSR		
		180	10x7.7	0.12	576	20	3600	RPA1C181MCN1GS	FP-016ME181M-PAR		
		220	8x11.7	0.12	704	20	3700	RPS1C221MCN1GS	FP-016ME221M-PSR		
		220	10x7.7	0.10	704	22	3450	RPA1C221MCN1GS	FP-016ME221M-PAR		
		270	8x11.7	0.12	864	14	4400	RPS1C271MCN1GS	FP-016ME271M-PSR		
		330	10x12.4	0.12	792	16	4800	RPS1C331MCN1GS	FP-016ME331M-PSR		
		470	10x12.4	0.12	1504	9	6100	RPS1C471MCN1GS	FP-016ME471M-PSR		
20 (1D)	23.0	820	10x12.4	0.12	2624	18	4200	RPS1C821MCN1GS	FP-016ME821M-PSR		
		1000	10x12.4	0.12	3200	12	5400	RPS1C102MCN1GS	FP-016ME102M-PSR		
		1200	10x12.4	0.12	3840	12	5400	RPS1C122MCN1GS	FP-016ME122M-PSR		
		560	10x12.4	0.10	2240	20	3100	RPA1D561MCN1GS	FP-020ME561M-PAR		
		25 (1E)	28.7	22	8x6.7	0.12	275	50	1800	RPS1E220MCN1GS	FP-025ME220M-PSR
				100	8x11.7	0.12	500	24	3320	RPS1E101MCN1GS	FP-025ME101M-PSR
				220	8x11.7	0.12	1100	18	4400	RPS1E221MCN1GS	FP-025ME221M-PSR
				*330	10x12.4	0.08	1650	14	5000	RPS1E331MCNASQGS	FP-025ME331M-PSR-5K
				390	10x12.4	0.12	1950	16	4800	RPS1E391MCN1GS	FP-025ME391M-PSR
		35 (1V)	40.2	150	10x12.4	0.12	1050	28	2600	RPS1V151MCN1GS	FP-035ME151M-PSR
50 (1H)	57.5	12	6.3x5.7	0.12	120	40	1250	RPS1H120MCN1GS	FP-050ME120M-PSR		
		22	8x6.7	0.12	220	37	1550	RPS1H220MCN1GS	FP-050ME220M-PSR		
		33	10x7.7	0.12	330	32	1950	RPS1H330MCN1GS	FP-050ME330M-PSR		
		39	8x11.7	0.15	390	26	2300	RPS1H390MCN1GS	FP-050ME390M-PSR		
		47	8x11.7	0.15	470	26	2300	RPS1H470MCN1GS	FP-050ME470M-PSR		
		82	10x12.4	0.15	820	23	2800	RPS1H820MCN1GS	FP-050ME820M-PSR		
63 (1J)	72.5	8.2	6.3x5.7	0.12	103	41	1200	RPS1J8R2MCN1GS	FP-063ME8R2M-PSR		
		12	8x6.7	0.12	151	38	1500	RPS1J120MCN1GS	FP-063ME120M-PSR		
		22	10x7.7	0.12	277	33	1900	RPS1J220MCN1GS	FP-063ME220M-PSR		
		33	8x11.7	0.15	415	27	2250	RPS1J330MCN1GS	FP-063ME330M-PSR		
		56	10x12.4	0.15	705	24	2700	RPS1J560MCN1GS	FP-063ME560M-PSR		

\* : Load life 5000hours.

• For taping specifications, recommended land size/soldering by reflow and minimum order quantity, please refer to the Guidelines for Aluminum Electrolytic Capacitors.

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