

- Super low ESR, impedance and high heat resistance have been obtained by using conductive polymer as electrolyte.
- Rated voltage range: 2.5 to 25Vdc, Capacitance range: 56 to 1,200μF
- **©** Case size range :  $\phi$  6.3×5.8L to  $\phi$  8×6.7L
- Suitable for DC-DC converters, voltage regulators and decoupling applications used on computer motherboards etc.
- Solvent resistant type (see PRECAUTIONS AND GUIDELINES)
- RoHS2 Compliant
- Halogen Free



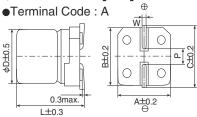


## **SPECIFICATIONS**

Items	Characteristics									
Category Temperature Range	-55 to +105℃									
Rated Voltage Range	2.5 to 25V <sub>dc</sub>									
Capacitance Tolerance	±20% (M) (at 20°C, 120Hz)									
Leakage Current *Note	Shall not exceed values shown in STANDARD RATINGS.  (at 20°C after 2 minutes)									
Dissipation Factor (tan $\delta$ )	0.12 max. (at 20°C, 120Hz)									
Low Temperature Characteristics (Max. Impedance Ratio)	$Z(-25^{\circ}C)/Z(+20^{\circ}C)$ ≤1.15 $Z(-55^{\circ}C)/Z(+20^{\circ}C)$ ≤1.25 (at 100kHz)									
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage is applied for 15,000 hot at 105°C.									
	Appearance	No signi	ficant dam	age						
	Capacitance change	≦±20%	of the ini	tial value						
	D.F. (tan $\delta$ )	≦150%	of the initi	al specified	d value					
	ESR	≦150%	of the initi	al specified	d value					
	Leakage current	≦The in	ied value							
Bias Humidity	The following specification 60℃, 90 to 95% RH for 1			vhen the ca	pacitors a	are restor	red to 2	20°C a	after subjecting them to the DC rated voltage at	
	Appearance No significant damage									
	Capacitance change	≦±20% of the initial value								
	D.F. (tan δ )	≦150%	d value							
	ESR	≦150%	of the initi	al specified	d value					
	Leakage current	≦The in	itial specif	ied value						
Surge Voltage	The capacitors shall be s through a protective resis					the su	urge voltage specified at 105°C for 30 seconds			
	Rated voltage (Vdc)	2.5	6.3	10	16	20	2	25		
	2.9	7.2	12	18	23	2	29			
	Surge voltage (V <sub>dc</sub> ) 2.9 7.2 12 18 23 29								-	
	Appearance	ficant dam	age							
	Capacitance change ≤±20% of the initial value					1				
	D.F. (tan δ )	≤150% of the initial specified value								
	ESR	≦150%	d value	1						
	Leakage current	≦The in	itial specif	ied value						
Soldering Heat	soldering has been performed under the recommended soldering conditions.								back to 20°C to measure dip resistance after	
	Appearance	ce No significant damage								
	Capacitance value	nce value Within the specified tolerance range								
	D.F. (tan $\delta$ )	≦The in	itial specif	ied value						
	ESR	≦The in	itial specif	ied value						
	Leakage current ≦The initial specified value (Voltage treatment)									

\*Note: If any doubt arises, measure the leakage current after the following voltage treatment. Voltage treatment: DC rated voltage is applied to the capacitors for 120 minutes at 105°C.

# **◆DIMENSIONS** [mm]



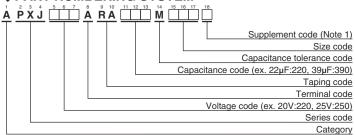
Size Code	φD	L	Α	В	С	W	Р
F61	6.3	5.8	6.6	6.6	7.2	0.5 to 0.8	1.9
F80	6.3	7.7	6.6	6.6	7.2	0.5 to 0.8	1.9
FA0	6.3	9.7	6.6	6.6	7.2	0.5 to 0.8	1.9
H70	8	6.7	8.3	8.3	9.0	0.7 to 1.1	3.1







# **◆PART NUMBERING SYSTEM**



Please refer to "Product code guide (conductive polymer type)"

(Note1) :PXJ series, 16V270  $\mu$  F (Rated ripple current 5,080mArms) have supplement code "J". Terminal and terminal plating are the same as all other in PXJ series.

### **♦STANDARD RATINGS**

WV (V <sub>dc</sub> )	Cap (µF)	Size code	Leakage current (μA max./after 2min.)	ESR (mΩ max./20°C, 100k to 300kHz)	Rated ripple current (mArms/105℃, 100kHz)	Part No.
	820	F61	1,020	10	4,900	APXJ2R5ARA821MF61G
	820	F80	1,020	7	5,000	APXJ2R5ARA821MF80G
2.5	820	FA0	1,020	10	4,300	APXJ2R5ARA821MFA0G
2.5	1,000	FA0	1,250	10	4,300	APXJ2R5ARA102MFA0G
	1,200	FA0	1,500	10	4,300	APXJ2R5ARA122MFA0G
	1,200	H70	1,500	10	4,500	APXJ2R5ARA122MH70G
	390	F61	1,220	10	4,900	APXJ6R3ARA391MF61G
6.3	560	F80	1,760	8	5,000	APXJ6R3ARA561MF80G
0.3	560	FA0	1,760	10	4,300	APXJ6R3ARA561MFA0G
	680	H70	2,140	10	4,500	APXJ6R3ARA681MH70G
	270	F61	1,350	15	4,000	APXJ100ARA271MF61G
10	390	F80	1,950	13	4,460	APXJ100ARA391MF80G
10	390	FA0	1,950	13	4,000	APXJ100ARA391MFA0G
	470	H70	2,350	15	4,000	APXJ100ARA471MH70G
	220	F61	704	20	3,500	APXJ160ARA221MF61G
	270	F80	864	10	5,080	APXJ160ARA271MF80J
16	270	F80	864	13	4,460	APXJ160ARA271MF80G
	270	FA0	864	16	3,500	APXJ160ARA271MFA0G
	390	H70	1,240	25	3,600	APXJ160ARA391MH70G
	150	F61	600	23	3,300	APXJ200ARA151MF61G
20	150	F80	600	18	3,790	APXJ200ARA151MF80G
20	150	FA0	600	18	3,200	APXJ200ARA151MFA0G
	220	H70	880	28	3,300	APXJ200ARA221MH70G
	56	F61	280	28	3,000	APXJ250ARA560MF61G
25	82	F80	410	28	3,040	APXJ250ARA820MF80G
25	82	FA0	410	28	3,000	APXJ250ARA820MFA0G
	120	H70	600	38	3,200	APXJ250ARA121MH70G

Production of the products shown in is scheduled to be discontinued.

### **◆RATED RIPPLE CURRENT MULTIPLIERS**

### Frequency Multipliers

Frequency (Hz)	120	120 1k		50k	100k to 500k	
SMD type	0.05	0.30	0.55	0.70	1.00	



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Part Numbering System
Part Numbering System (Appendix)
Standardization
Available Items by Manufacturing Locations
Environmental Measures
Technical Note
Precautions and Guidelines
Recommended Soldering Conditions
Taping, Lead-preforming, Terminal and Packaging Options