

NPCAP™-PXY Series

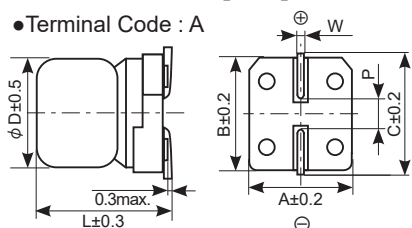
- Super low ESR, impedance and high heat resistance have been obtained by using conductive polymer as electrolyte.
- Guaranteed LC after reflow
- For automobile modules and other high temperature applications
- Endurance : 125°C 3,000 hours / 105°C 5,000 hours
- Rated voltage range : 6.3 to 16V_{dc}, Capacitance range : 56 to 390μF
- Solvent resistant type
- RoHS Compliant
- Halogen Free
- AEC-Q200 compliant : Please contact Chemi-Con for more details, test data, information.

◆ SPECIFICATIONS

Items	Characteristics
Category	-55 to +125°C
Temperature Range	-55 to +125°C
Rated Voltage Range	6.3 to 16V _{dc}
Capacitance Tolerance	±20% (M) (at 20°C , 120Hz)
Leakage Current	Shall not exceed values shown in STANDARD RATINGS. (at 20°C after 2 minutes)
Dissipation Factor (tan δ)	0.12 max. (at 20°C , 120Hz)
Low Temperature Characteristics (Max. Impedance Ratio)	Z(-25°C) / Z(+20°C) ≤ 1.15 Z(-55°C) / Z(+20°C) ≤ 1.25 (at 100kHz)
Endurance 1	The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage is applied for 3,000 hours at 125°C .
	Appearance No significant damage
	Capacitance change ≤ ±20% of the initial value
	D.F. (tan δ) ≤ 200% of the initial specified value
	ESR ≤ 200% of the initial specified value
	Leakage current ≤ The initial specified value
Endurance 2	The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage is applied for 5,000 hours at 105°C .
	Appearance No significant damage
	Capacitance change ≤ ±20% of the initial value
	D.F. (tan δ) ≤ 150% of the initial specified value
	ESR ≤ 150% of the initial specified value
	Leakage current ≤ The initial specified value
Bias Humidity	The following specifications shall be satisfied when the capacitors are restored to 20°C after subjecting them to the DC rated voltage at 60°C ,90 to 95% RH for 1,000 hours.
	Appearance No significant damage
	Capacitance change ≤ ±20% of the initial value
	D.F. (tan δ) ≤ 150% of the initial specified value
	ESR ≤ 150% of the initial specified value
	Leakage current ≤ The initial specified value
Surge Voltage	The capacitors shall be subjected to 1,000 cycles each consisting of charge with the surge voltage specified at 125°C for 30 seconds through a protective resistor(R=1kΩ)and discharge for 5 minutes 30 seconds.
	Rated voltage (V _{dc}) 6.3 10 16
	Surge voltage (V _{dc}) 7.2 12 18
	Appearance No significant damage
	Capacitance change ≤ ±20% of the initial value
	D.F. (tan δ) ≤ 150% of the initial specified value
	ESR ≤ 150% of the initial specified value
	Leakage current ≤ The initial specified value
Soldering Heat	The following specifications shall be satisfied when the solder temperature is reduced back to 20°C after soldering has been performed under the recommended soldering conditions.
	Appearance No significant damage
	Capacitance value Within the specified tolerance range
	D.F. (tan δ) ≤ The initial specified value
	ESR ≤ The initial specified value
	Leakage current ≤ The initial specified value

◆ DIMENSIONS [mm]

- Terminal Code : A



Size Code	φ D	L	A	B	C	W	P
E61	5	5.8	5.3	5.3	5.9	0.5 to 0.8	1.4
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

◆ MARKING

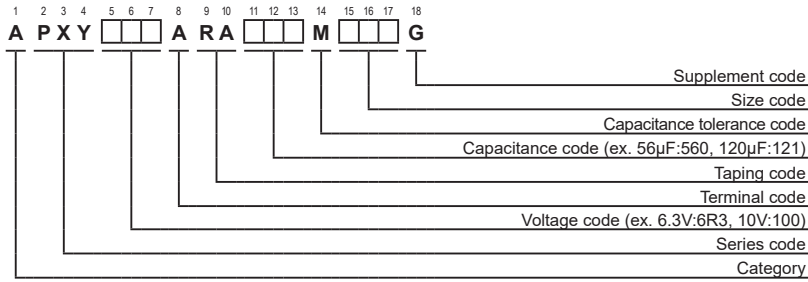
EX) 6.3V220μF



Product specifications in this bulletin are subject to change without notice. Request our product specifications before purchase and/or use. Please use our products based on the information contained in this bulletin and product specifications. Please contact us for mass production schedule.

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◆ PART NUMBERING SYSTEM



◆ STANDARD RATINGS

WV (V _{dc})	Cap (µF)	Size code	Leakage current *2 (µA max./ after 2min.)	ESR (mΩ max./20°C, 100k to 300kHz)	Rated ripple current (mArms/ 100kHz)		Part No.
					-55°C ≤ Tx ≤ 105°C *1	105°C <Tx ≤ 125°C *1	
6.3	150	E61	189	20	2,800	1,400	APXY6R3ARA151ME61G
	220	F61	277	18	3,000	1,500	APXY6R3ARA221MF61G
	270	F61	340	16	3,160	1,550	APXY6R3ARA271MF61G
	390	F80	491	16	3,470	1,700	APXY6R3ARA391MF80G
10	120	E61	240	22	2,800	1,400	APXY100ARA121ME61G
	220	F61	440	20	3,000	1,500	APXY100ARA221MF61G
	270	F80	540	18	3,250	1,600	APXY100ARA271MF80G
16	56	E61	179	26	2,700	1,350	APXY160ARA560ME61G
	100	F61	320	24	2,800	1,400	APXY160ARA101MF61G
	150	F80	480	22	3,100	1,500	APXY160ARA151MF80G

*1 TX : Ambient Temperature(°C)

*2 After soldering has been performed under the recommended soldering conditions.

◆ RATED RIPPLE CURRENT MULTIPLIERS

●Frequency Multipliers

Frequency (Hz)	120	1k	10k	50k	100k to 300k
SMD type	0.05	0.30	0.55	0.70	1.00

The deterioration of aluminum electrolytic capacitors accelerates their life due to the internal heating produced by ripple current.