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NIPPON CHEMI-CON

CONDUCTIVE POLYMER ALUMINUM SOLID CAPACITORS

Surface Mount

NPCAP™-PXG Series

- Super low ESR, high ripple current capability
- Rated voltage range : 16 to 25Vdc, Capacitance range : 10 to 1,000µF
- Case size : φ5×4.5L to φ10×12.2L
- Solvent resistant type (see PRECAUTIONS AND GUIDELINES)
- RoHS2 Compliant
- Halogen Free

PXG
↑ Downsized
PXE



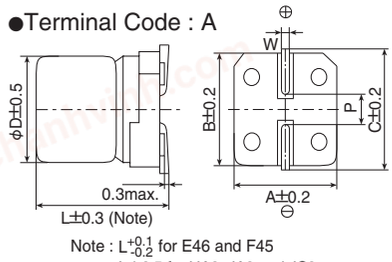
◆SPECIFICATIONS

Items	Characteristics
Category Temperature Range	-55 to +105℃
Rated Voltage Range	16 to 25Vdc
Capacitance Tolerance	±20% (M) (at 20℃, 120Hz)
Leakage Current *Note	Shall not exceed values shown in STANDARD RATINGS. (at 20℃ after 2 minutes)
Dissipation Factor (tan δ)	0.12 max. (at 20℃, 120Hz)
Low Temperature Characteristics (Max. Impedance Ratio)	Z(-25℃)/Z(+20℃)≦1.15 Z(-55℃)/Z(+20℃)≦1.25 (at 100kHz)
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20℃ after the rated voltage is applied for 15,000 hours (E46,F45 : 3,000 hours) at 105℃.
	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℃ after subjecting them to the DC rated voltage at 60℃, 90 to 95% RH for 1,000 hours (E46,F45 : 500 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 105℃ for 30 seconds through a protective resistor(R=1kΩ)and discharge for 5 minutes 30 seconds.
	Rated voltage (Vdc) : 16 / 20 / 25
	Surge voltage (Vdc) : 18 / 23 / 29
	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 to measure dip resistance 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 (Voltage treatment)
Failure Rate	0.5% per 1,000 hours maximum (Confidence level 60% at 105℃)

*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℃.

◆DIMENSIONS [mm]

●Terminal Code : A



Note : $L^{+0.1}_{-0.2}$ for E46 and F45
L±0.5 for HA0, JA0 and JC0

Size Code	φD	L	A	B	C	W	P
E46	5	4.5	5.3	5.3	5.9	0.5 to 0.8	1.4
E61	5	5.8	5.3	5.3	5.9	0.5 to 0.8	1.4
F45	6.3	4.4	6.6	6.6	7.2	0.5 to 0.8	1.9
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
H70	8	6.7	8.3	8.3	9.0	0.7 to 1.1	3.1
H80	8	7.7	8.3	8.3	9.0	0.7 to 1.1	3.1
HA0	8	10.0	8.3	8.3	9.0	0.7 to 1.1	3.1
J80	10	7.7	10.3	10.3	11.0	0.7 to 1.1	4.5
JA0	10	10.0	10.3	10.3	11.0	0.7 to 1.1	4.5
JC0	10	12.2	10.3	10.3	11.0	0.7 to 1.1	4.5

◆MARKING

EX) 25V47µF



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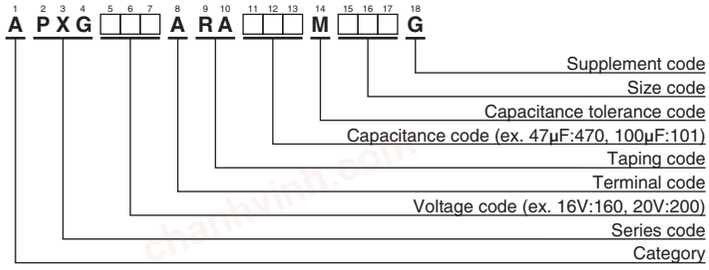
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Surface Mount

NPCAP™-PXG Series

◆PART NUMBERING SYSTEM



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

◆STANDARD RATINGS

WV (V_{dc})	Cap (μF)	Size code	Leakage current (μA max./after 2min.)	ESR (mΩ max./20℃, 100k to 300kHz)	Rated ripple current (mArms/105℃, 100kHz)	Part No.
16	39	E46	312	50	1,860	APXG160ARA390ME46G
	68	F45	544	40	2,450	APXG160ARA680MF45G
	100	E61	320	27	3,000	APXG160ARA101ME61G
	180	F61	576	22	3,300	APXG160ARA181MF61G
	220	F80	704	22	3,300	APXG160ARA221MF80G
	270	H70	864	22	3,300	APXG160ARA271MH70G
	330	H70	1,050	22	3,300	APXG160ARA331MH70G
	330	H80	1,050	21	3,400	APXG160ARA331MH80G
	330	HA0	1,050	21	3,400	APXG160ARA331MHA0G
	560	HA0	1,790	18	3,900	APXG160ARA561MHA0G
	560	J80	1,790	20	3,800	APXG160ARA561MJ80G
	820	JA0	2,620	16	4,200	APXG160ARA821MJA0G
	820	JC0	2,620	12	5,400	APXG160ARA821MJC0G
	1,000	JA0	3,200	18	4,100	APXG160ARA102MJA0G
	1,000	JC0	3,200	12	5,400	APXG160ARA102MJC0G
20	27	E46	270	55	1,770	APXG200ARA270ME46G
	47	E61	188	30	2,800	APXG200ARA470ME61G
	47	F45	470	42	2,400	APXG200ARA470MF45G
	56	E61	224	30	2,800	APXG200ARA560ME61G
	120	F61	480	25	3,200	APXG200ARA121MF61G
	150	F80	600	25	3,200	APXG200ARA151MF80G
	180	H70	720	25	3,200	APXG200ARA181MH70G
	220	H80	880	23	3,300	APXG200ARA221MH80G
	220	HA0	880	23	3,400	APXG200ARA221MHA0G
	390	HA0	1,560	20	3,700	APXG200ARA391MHA0G
	390	J80	1,560	22	3,650	APXG200ARA391MJ80G
	560	JA0	2,240	18	4,100	APXG200ARA561MJA0G
25	10	E46	125	60	1,700	APXG250ARA100ME46G
	22	E61	110	40	2,450	APXG250ARA220ME61G
	22	F45	275	45	2,350	APXG250ARA220MF45G
	27	E61	135	40	2,450	APXG250ARA270ME61G
	39	F61	195	30	2,800	APXG250ARA390MF61G
	47	F61	235	30	2,800	APXG250ARA470MF61G
	56	F61	280	30	2,800	APXG250ARA560MF61G
	56	F80	280	28	2,800	APXG250ARA560MF80G
	68	H70	340	28	3,000	APXG250ARA680MH70G
	82	H80	410	26	3,100	APXG250ARA820MH80G
	100	HA0	500	24	3,300	APXG250ARA101MHA0G
	120	HA0	600	22	3,500	APXG250ARA121MHA0G
	150	J80	750	25	3,400	APXG250ARA151MJ80G
	220	JA0	1,100	20	3,800	APXG250ARA221MJA0G

◆RATED RIPPLE CURRENT MULTIPLIERS

Frequency Multipliers

Frequency (Hz)	120	1k	10k	50k	100k to 500k
SMD type	0.05	0.30	0.55	0.70	1.00

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