

NPCAP™-P_XG Series

- Super low ESR, high ripple current capability
- Rated voltage range : 16 to 25V_{dc}, Capacitance : 10 to 820μF
- Case size : φ 5×4.5L to φ 10×10L
- RoHS Compliant
- Halogen Free

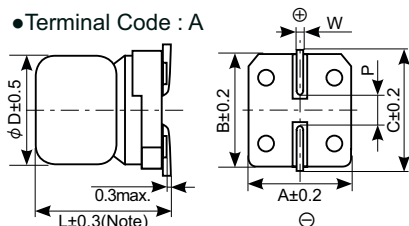
◆ SPECIFICATIONS

Items	Characteristics										
Category	-55 to +105°C										
Temperature Range											
Rated Voltage Range	16 to 25V _{dc}										
Capacitance Tolerance	±20% (M) (at 20°C, 120Hz)										
Surge Voltage	Rated voltage×1.15 (at 105°C)										
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	The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage is applied for 2,000 hours (E46, F45 : 1,000 hours) at 105°C. <table border="1"> <tr> <td>Appearance</td><td>No significant damage</td></tr> <tr> <td>Capacitance change</td><td>≤ ±20% of the initial value</td></tr> <tr> <td>DF (tan δ)</td><td>≤ 150% of the initial specified value</td></tr> <tr> <td>ESR</td><td>≤ 150% of the initial specified value</td></tr> <tr> <td>Leakage current</td><td>≤ The initial specified value</td></tr> </table>	Appearance	No significant damage	Capacitance change	≤ ±20% of the initial value	DF (tan δ)	≤ 150% of the initial specified value	ESR	≤ 150% of the initial specified value	Leakage current	≤ The initial specified value
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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 (E46, F45 : 500 hours). <table border="1"> <tr> <td>Appearance</td><td>No significant damage</td></tr> <tr> <td>Capacitance change</td><td>≤ ±20% of the initial value</td></tr> <tr> <td>DF (tan δ)</td><td>≤ 150% of the initial specified value</td></tr> <tr> <td>ESR</td><td>≤ 150% of the initial specified value</td></tr> <tr> <td>Leakage current</td><td>≤ The initial specified value</td></tr> </table>	Appearance	No significant damage	Capacitance change	≤ ±20% of the initial value	DF (tan δ)	≤ 150% of the initial specified value	ESR	≤ 150% of the initial specified value	Leakage current	≤ The initial specified value
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DF (tan δ)	≤ 150% of the initial specified value										
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Surge Voltage	The capacitors shall be subjected to 1,000 cycles each consisting of charge with the surge voltage specified at 105°C for 30 seconds through a protective resistor (R=1kΩ) and discharge for 5 minutes 30 seconds. <table border="1"> <tr> <td>Appearance</td><td>No significant damage</td></tr> <tr> <td>Capacitance change</td><td>≤ ±20% of the initial value</td></tr> <tr> <td>DF (tan δ)</td><td>≤ 150% of the initial specified value</td></tr> <tr> <td>ESR</td><td>≤ 150% of the initial specified value</td></tr> <tr> <td>Leakage current</td><td>≤ The initial specified value</td></tr> </table>	Appearance	No significant damage	Capacitance change	≤ ±20% of the initial value	DF (tan δ)	≤ 150% of the initial specified value	ESR	≤ 150% of the initial specified value	Leakage current	≤ The initial specified value
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ESR	≤ 150% of the initial specified value										
Leakage current	≤ The initial specified value										
Failure Rate	0.5% per 1,000 hours maximum (Confidence level 60% at 105°C)										

*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]

- Terminal Code : A



Note : L+0.1 / -0.2 for E46, F45
L±0.5 for HA0 and JA0

Size Code	φ D	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
HA0	8	10.0	8.3	8.3	9.0	0.7 to 1.1	3.1
JA0	10	10.0	10.3	10.3	11.0	0.7 to 1.1	4.5

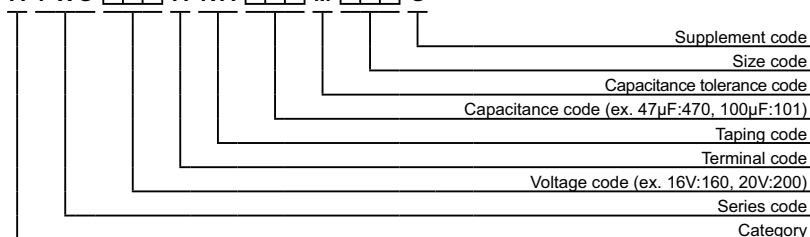
◆ MARKING

EX) 25V47μF



◆ PART NUMBERING SYSTEM

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
A P X G A R A M G



Please contact us for mass production schedule.
Specifications in this bulletin are subject to change without notice.

NPCAP™-PXG Series

◆ STANDARD RATINGS

WV (Vdc)	Cap (μF)	Size code	Leakage current (μA max/ after 2min.)	ESR (mΩ max/20°C , 100k to 300kHz)	Rated ripple current (mA rms/ 105°C , 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
	330	HA0	1,050	21	3,400	APXG160ARA331MHA0G
	820	JA0	2,620	16	4,200	APXG160ARA821MJA0G
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
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

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