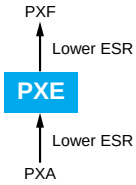
NPCAP™-PXE Series



- Super low ESR, impedance and high heat resistance have been obtained by using conductive polymer as electrolyte.
  (ESR and rated ripple current values are improved from PXA series.)
- Rated voltage range : 2.5 to 16Vdc, Capacitance range : 33 to 2,700µF
- Case size range : φ5×5.8L to φ10×12.2L
- Suitable for DC-DC converters, voltage regulators and decoupling applications used on computer motherboards etc.
- **RoHS Compliant**

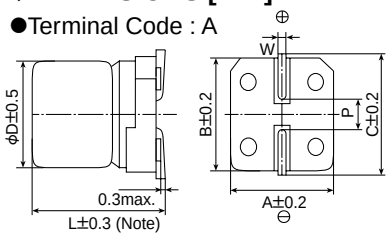
◆SPECIFICATIONS

Items	Characteristics
Category Temperature Range	−55 to +105℃
Rated Voltage Range	2.5 to 16Vdc
Capacitance Tolerance	±20% (M) (at 20℃, 120Hz)
Surge Voltage	Rated voltage×1.15V (at 105℃)
Leakage Current	I=0.2CV (max.) I : Max. leakage current (µA), C : Nominal capacitance (µF), V : Rated voltage (Vdc) (at 20℃ after 2 minutes)
Dissipation Factor (tanδ)	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 2,000 hours at 105℃. Appearance: No significant damage Capacitance change: ≦±20% of the initial value DF (tanδ): ≦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. Appearance: No significant damage Capacitance change: ≦±20% of the initial value DF (tanδ): ≦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. Appearance: No significant damage Capacitance change: ≦±20% of the initial value DF (tanδ): ≦150% of the initial specified value 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℃)

*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±0.5 for HA0, HC0, JA0, JC0

Size Code	φD	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
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
HC0	8	12.0	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) 2.5V390µF

◆PART NUMBERING SYSTEM

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

- 18: Supplement code
- 15–17: Size code
- 14: Capacitance tolerance code
- 11–13: Capacitance code (ex. 47µF:470,100µF:101)
- 9–10: Taping code
- 8: Terminal code
- 5–7: Voltage code (ex. 6.3V:6R3,10V:100)
- 4: Series code
- 1: Category

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

NPCAP™-PXE Series

◆STANDARD RATINGS

WV (Vdc)	Cap (μF)	Size code	ESR (mΩmax/20℃, 100kHz)	Rated ripple current (mArms/105℃, 100k to 300kHz)	Part No.
2.5	180	E61	21	2,670	APXE2R5ARA181ME61G
	390	F61	15	3,160	APXE2R5ARA391MF61G
	470	F80	13	3,600	APXE2R5ARA471MF80G
	560	F80	13	3,600	APXE2R5ARA561MF80G
	560	H70	13	4,100	APXE2R5ARA561MH70G
	680	H70	13	4,100	APXE2R5ARA681MH70G
	820	H80	12	4,260	APXE2R5ARA821MH80G
	820	HC0	9	5,400	APXE2R5ARA821MHC0G
	1,000	H80	12	4,260	APXE2R5ARA102MH80G
	1,200	J80	13	4,450	APXE2R5ARA122MJ80G
	1,500	HA0	10	5,220	APXE2R5ARA152MHA0G
	1,500	HC0	9	5,400	APXE2R5ARA152MHC0G
	2,200	JA0	10	5,500	APXE2R5ARA222MJA0G
	2,700	JC0	9	5,600	APXE2R5ARA272MJC0G
4	100	E61	22	2,610	APXE4R0ARA101ME61G
	150	E61	22	2,610	APXE4R0ARA151ME61G
	270	F61	15	3,160	APXE4R0ARA271MF61G
	330	F61	15	3,160	APXE4R0ARA331MF61G
	390	F80	14	3,470	APXE4R0ARA391MF80G
	470	H70	14	3,950	APXE4R0ARA471MH70G
	560	H70	14	3,950	APXE4R0ARA561MH70G
	680	H80	13	3,950	APXE4R0ARA681MH80G
	1,000	HA0	10	5,220	APXE4R0ARA102MHA0G
	1,000	J80	14	4,300	APXE4R0ARA102MJ80G
	1,200	HC0	9	5,400	APXE4R0ARA122MHC0G
	1,200	JA0	10	5,500	APXE4R0ARA122MJA0G
	1,500	JA0	10	5,500	APXE4R0ARA152MJA0G
	1,800	JA0	10	5,500	APXE4R0ARA182MJA0G
	1,800	JC0	9	5,600	APXE4R0ARA182MJC0G
6.3	100	E61	24	2,500	APXE6R3ARA101ME61G
	120	E61	24	2,500	APXE6R3ARA121ME61G
	220	F61	15	3,160	APXE6R3ARA221MF61G
	270	F80	14	3,470	APXE6R3ARA271MF80G
	330	F80	14	3,470	APXE6R3ARA331MF80G
	330	H70	14	3,950	APXE6R3ARA331MH70G
	390	H70	14	3,950	APXE6R3ARA391MH70G
	470	H80	13	3,950	APXE6R3ARA471MH80G
	820	HA0	12	4,770	APXE6R3ARA821MHA0G
	820	HC0	10	5,150	APXE6R3ARA821MHC0G
	820	J80	14	4,300	APXE6R3ARA821MJ80G
	1,200	JA0	12	5,025	APXE6R3ARA122MJA0G
	1,500	JA0	12	5,025	APXE6R3ARA152MJA0G
	1,500	JC0	10	5,500	APXE6R3ARA152MJC0G
10	47	E61	28	2,310	APXE100ARA470ME61G
	56	E61	28	2,310	APXE100ARA560ME61G
	68	E61	28	2,310	APXE100ARA680ME61G
	120	F61	25	2,530	APXE100ARA121MF61G
	150	F80	21	2,880	APXE100ARA151MF80G
	220	H70	21	3,220	APXE100ARA221MH70G
	270	H70	21	3,220	APXE100ARA271MH70G
	330	H80	19	3,390	APXE100ARA331MH80G
	390	HA0	17	4,000	APXE100ARA391MHA0G
	470	J80	19	3,800	APXE100ARA471MJ80G
	680	JA0	13	4,820	APXE100ARA681MJA0G
16	33	E61	35	2,070	APXE160ARA330ME61G
	39	E61	35	2,070	APXE160ARA390ME61G
	68	F61	28	2,390	APXE160ARA680MF61G
	82	F80	24	2,700	APXE160ARA820MF80G
	100	F80	24	2,700	APXE160ARA101MF80G
	100	H70	24	3,010	APXE160ARA101MH70G
	120	H70	24	3,010	APXE160ARA121MH70G
	150	H80	22	3,150	APXE160ARA151MH80G
	180	HA0	18	3,890	APXE160ARA181MHA0G
	220	HA0	18	3,890	APXE160ARA221MHA0G
	220	J80	22	3,450	APXE160ARA221MJ80G
	330	JA0	16	4,350	APXE160ARA331MJA0G