CONDUCTIVE POLYMER ALUMINUM SOLID CAPACITORS

Surface Mount

Upgrade! NP CAP™-PXA Series

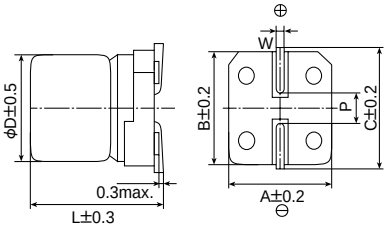
- Super low ESR, impedance and high heat resistance have been obtained by using conductive polymer as electrolyte (ESR and rated ripple current values are improved)
- Rated voltage range : 2.5 to 25Vdc, case size range : φ6.3×5.5mm to φ10×8.0mm (20/25V and case code F55 newly added)
- Suitable for DC-DC converters, voltage regulators and decoupling applications used to computer motherboards etc.
- High heat resistance to reflow soldering (See reflow soldering conditions)

◆SPECIFICATIONS

Items	Characteristics	
Category Temperature Range	−55 to +105℃	
Rated Voltage Range	2.5 to 25Vdc	
Capacitance Tolerance	±20% (M)	(at 20℃, 120Hz)
Surge Voltage	Rated voltage×1.15V	(at 105℃)
Leakage Current	Shall not exceed values shown in STANDARD RATINGS.	(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 2000 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 500 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 1000 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	1% per 1000 hours maximum (Confidence level 60% at 105℃)	

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

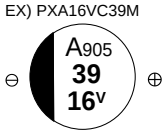
◆DIMENSIONS (Terminal Type=VC) [mm]



Case code	φD	L	A	B	C	W	P
F55	6.3	5.2	6.6	6.6	7.2	0.5 to 0.8	1.9
F60	6.3	5.7	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
J80	10	7.7	10.3	10.3	11.0	0.7 to 1.1	4.5

◆MARKING

EX) PXA16VC39M



◆PART NUMBERING SYSTEM

PXA 16 VC 39 M F60

- F60 : Case code
- M : Cap tolerance (±20%)
- 39 : Nominal cap code
- VC : Terminal type
- 16 : Rated voltage in volts
- PXA : Series name

Capacitance	Code
39μF	39
100μF	100
1000μF	1000

CAT. No. E1001C

Upgrade!
NP CAP™-PXA Series

◆STANDARD RATINGS

Case code	Rated voltage (Vdc)	Nominal Capacitance (μF)	Leakage current (μAmax. after 2 min.)	ESR (mΩmax./ 20℃, 100k to 300kHz)	Rated ripple current (mArms/100k to 300kHz) −55 to +105℃
F55	2.5	220	110	25	2,500
	4	100	80.0	26	2,450
		150	120		
	6.3	82	103	27	2,400
		100	126		
	10	56	112	31	2,250
	16	39	125	37	2,050
	20	22	88.0	50	1,650
F60	2.5	220	110	25	2,500
	4	100	80.0	26	2,450
		150	120		
	6.3	68	85.7	27	2,400
		82	103		
		100	126		
		120	151		
	10	47	94.0	31	2,250
		56	112		
	16	33	106	37	2,050
		39	125		
	20	22	88.0	50	1,650
	25	10	125	65	1,500
H70	2.5	560	280	23	3,100
	4	220	176	25	3,020
		330	264		
	6.3	150	189	25	3,020
		220	277		
	10	120	240	27	2,800
		150	300		
	16	82	262	30	2,700
	20	39	156	45	2,000
		47	188		
	25	22	275	50	1,800
J80	2.5	1,000	500	19	4,240
	4	470	376	20	4,130
		680	544		
	6.3	330	416	20	4,130
		470	592		
	10	270	540	24	3,770
		330	660		
	16	150	480	26	3,430
		180	576		
	20	82	328	40	2,500
	25	39	488	45	2,100