NPCAP™-PMA Series New!

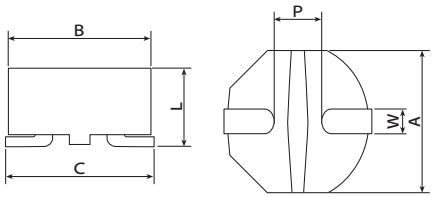
- The new construction provides a low profile and high CV.
- Super low ESR, impedance, and high heat resistance characteristics have been secured by using highly conductive polymer electrolytic materials.
- Compatible with digitalization and high frequencies of electrical equipment with superior noise absorption.
- Excellent ESR characteristics, high ripple current, 5,000 hours at 105°C.
- Low-profile product lineup
- Outer coating: Flame-retardant epoxy resin UL94 V-0 or equivalent
- Non-solvent resistant type
- RoHS2 Compliant
- Halogen free products

◆SPECIFICATIONS

Items	Characteristics	
Category Temperature Range	-55 to +105℃	
Rated Voltage Range	16 to 25V_{dc}	
Capacitance Tolerance	±20% (M)	(at 20℃, 120Hz)
Surge Voltage	Rated voltage×1.15	(at 105℃)
Leakage Current	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 5,000 hours at 105℃.	
	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
Damp Heat (Steady State)	The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for 500 hours at 60℃, 90 to 95% RH without voltage applied.	
	Appearance	No significant damage
	Capacitance change	≦-20 to +40% 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
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
	D.F. (tan δ)	≦200% of the initial specified value
	ESR	≦200% 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]



Size code	A	B	C	L	W	P
F30	7.0±0.1	7.0±0.1	7.2±0.2	3.0 max.	1.2±0.2	2.85±0.1

◆MARKING

EX) 25V22μF

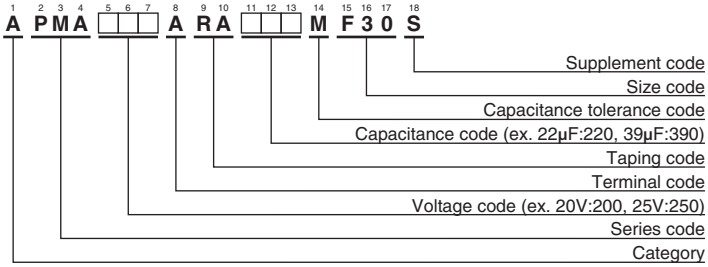
- Rated voltage symbol

Rated voltage (V_{dc})	16	20	25
Symbol	C	D	E

- Capacitance symbol
  Capacitance code (ex. 22μF : 220)

NPCAP™-PMA New! 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	56	F30	448	40	2,200	APMA160ARA560MF30S
	68	F30	544	50	2,000	APMA160ARA680MF30S
20	39	F30	390	45	2,100	APMA200ARA390MF30S
	47	F30	470	50	2,000	APMA200ARA470MF30S
25	22	F30	275	50	2,000	APMA250ARA220MF30S
	33	F30	412	50	2,000	APMA250ARA330MF30S