Corresponding to RoHS Directive

		Conductive Polymer Aluminum Solid Electrolytic Capacitors				Conductive Polymer Aluminum Solid Electrolytic Capacitors(FPCAP)	
		SMD type (CV, CX, CR series)	Lead wire terminal type (LV, LX series)	SMD type (except CV, CX, CR)	Lead wire terminal type (except LV, LX)	SMD type	Lead wire terminal type
Corresponding to RoHS Directive		Complied				Complied	
Material	The portion of the components						
Lead (Pb)	Plating on terminals	Sn plating		Ag plating		Sn plating	Sn plating
	Insulating Sleeves	Does not contain				Does not contain	
	Construction of terminals	Fe/Cu/Sn		Fe/Cu/Ag or Cu/Ag		Cu/Sn	Cu/Sn or Fe/Cu/Sn
	Resistance to soldering heat	Please refer to page 19 for the recommendation reflow condition.	Correspondence to 265°C flow soldering condition	Please refer to page 19 for the recommendation reflow condition.	Correspondence to 265°C flow soldering condition	Please refer to page 25 for the recommendation reflow condition(FPCAP).	Correspondence to 260°C flow soldering condition
	Solderability Tensile strength	No significant solderability difference between Sn-Ag-Cu and Sn-Pb solder.				No significant solderability difference between Sn-Ag-Cu and Sn-Pb solder.	
Chromium (VI)	Plating material	Does not contain				Does not contain	
Mercury		Does not contain				Does not contain	
Cadmium							
PBB							
PBDE							
Identification for RoHS compliance parts		Add "Pb free" marking on outer carton label				Add "Pb free" marking on outer carton label	
MSL (IPC/JEDEC J-STD-020D)		Not Applicable				Not Applicable	

		Aluminum Electrolytic Capacitors			
		SMD type	Lead wire terminal type	Snap-in terminal type	Screw terminal type
Corresponding to RoHS Directive		Complied		Complied (Lug terminal type : Avallable)	Complied
Material	The portion of the components				
Lead (Pb)	Plating on terminals	(< or=Dia.10mm) Change plating from Sn-Pb toSn-Bi (> or=Dia.12.5mm) Change plating from Sn-Pb to Sn	Change plating from Sn-Pb to Sn		Al
	Insulating Sleeves	No used	Replaced with PET		—
	Construction of terminals	Fe/Cu/Sn-1.5Bi (<or=Dia 10mm) Fe/Cu/Sn (>or=Dia 12.5mm)	Fe/Cu/Sn		Al
			Cu/Sn (KZ, FG, ES, DB series)	Cu-Zn/Au (KG series type-Ⅲ)	
		Plating thickness 12μm Plating type matte No heat treatment after plating		Plating thickness 10μm Plating type matte No heat treatment after plating	—
	Resistance to soldering heat	Please refer to page 19 for the recommendation reflow condition.	Correspondence to 260°C flow soldering condition		Not Applicable
	Solderability Tensile strength	No significant solderability difference between Sn-Ag-Cu and Sn-Pb solder.			—
Chromium (VI)	Plating material	Does not contain			Available (Chromium(VI) contained in the plating of fixtures)
Mercury		Does not contain			
Cadmium					
PBB					
PBDE					
Identification for RoHS compliance parts		Part numbers are changed Add "Pb-free" marking on inner and outer carton label	Part numbers are changed Add "Pb-free" and "PVCless" marking on inner and outer carton label.		Part numbers are changed Add "RoHS" marking on outer carton label.
MSL (IPC/JEDEC J-STD-020D)		Not Applicable			

Part Numbering for Pb-free Aluminum Electrolytic Capacitors

SMD type

Part Numbers for Pb-free SMD type capacitors represent as follows:

(1) When certain part numbers are changed because of replacement with Pb-free plated terminals, their 11 digit shows the distinction.

(Example)

1 2 3 4 5 6 7 8 9 10 11 12 13 14
U ZS 1C 100 M CR 1GB (Sn-Pb plated terminals)

1 2 3 4 5 6 7 8 9 10 11 12 13 14
U ZS 1C 100 M CL 1GB (Pb-free plated terminals)

type | Series Code | Rated Voltage | Rated Capacitance | Capacitance Tolerance | Configration | TapingCode(Inclusive case diameter and packing spec)

RoHS compliant

L will be put at 11 digit of numbering system

Exception : ※**10th digit** of the part number also need to be changed for the following series and case size.
8X6.2 case size of WF, UX and UR : **BR** to **CL**
※UE. BC series (Vibration Resistance) is only Pb-free and 11th digit the part number change to "S".
※CD series is only Pb-free. In case of φ12.5 or more: 11th digit the part number change to "Q".

Lead wire terminal type

Part Numbers for Pb-free type capacitors represent as follows:

(1) When certain part numbers are changed because of replacement with Pb-free plated leadwire and PVC less , sleeves the **11th digit** of the part number represents the distinction.

(Example)

1 2 3 4 5 6 7 8 9 10 11
U VZ 1A 331 M EH (Sn-Pb plated leadwire,PVC sleeve)

1 2 3 4 5 6 7 8 9 10 11
U VZ 1A 331 M ED (Pb-free plated leadwire, PET sleeve)

Type | Series Code | Rated Voltage | Rated Capacitance | Capacitance Tolerance | Configration

RoHS compliant

D will be put at 11 digit of numbering system

Exception : 10th digit of the part number also need to be changed for the following series and case size.
8X7 case size of SA, SR and SP **CA** to **DD**
8X7 case size of ST and SF **CH** to **DD**

*Configuration code is subject to change by series of case diameter.

Snap-in terminal type

(Example)

1 2 3 4 5 6 7 8 9 10 11 12
L GU 2D 681 M HL A (Sn-Pb plated terminals, PVC sleeve and bottom plate)

1 2 3 4 5 6 7 8 9 10 11 12
L GU 2D 681 M EL A (Pb-free plated terminals, PETsleeve and no bottom plate)

Type | Series Code | Rated Voltage | Rated Capacitance | Capacitance Tolerance | Configration | Case dia. code

RoHS compliant

E will be put at 10 digit of numbering system

Screw terminal type

(Example)

1 2 3 4 5 6 7 8 9 10 11 12
L NX 2W 221 M SM G Bracket, Screwbolt, Lock washer (Cr (VI) plating)

1 2 3 4 5 6 7 8 9 10 11 12
L NX 2W 221 M SE G Cr (Ⅲ) plating

Type | Series Code | Rated Voltage | Rated Capacitance | Capacitance Tolerance | Configration | Case dia. code

RoHS compliant

E will be put at 11 digit of numbering system

Corresponding to RoHS Directive

		Plastic Film Capacitors		
		Metallized plastic film capacitor XK-(ZH), XK, XP, XT, XL, AK, AP series	Plastic film capacitor for AC Power Based on Applications EC, EN, XH series	Foil type plastic film capacitor YX series
Corresponding to RoHS Directive		Complied	Complied	Complied
Material	The portion of the components			
Lead (Pb)	Plating on terminals	Sn plating	Sn plating	Sn plating
	Internal connection, Internal soldering	Does not contain	Does not contain	Does not contain
	Construction of terminals	Fe / Cu / Sn Plating thickness 12μm Plating type matte No heat treatment after plating	Fe / Cu / Sn Plating thickness 3to12μm Plating type matte No heat treatment after plating	Fe / Cu / Sn Plating thickness 12μm Plating type matte No heat treatment after plating
	Resistance to soldering heat	Correspondence to 260°c flow soldering condition	Correspondence to 260°c flow soldering condition	Correspondence to 260°c flow soldering condition
	Solderability Tensile strength	No significant solderability difference between Sn-Ag-Cu and Sn-Pb solder.	No significant solderability difference between Sn-Ag-Cu and Sn-Pb solder.	No significant solderability difference between Sn-Ag-Cu and Sn-Pb solder.
Chromium (VI)		Does not contain	Does not contain	Does not contain
Mercury				
Cadmium				
PBB				
PBDE				
Identification for RoHS compliance parts		Add "Pb free" marking on inner and outer carton label	Add "Pb free" marking on inner and outer carton label	Add "Pb free" marking on inner and outer carton label
MSL (IPC/JEDEC J-STD-020D)		Not Applicable	Not Applicable	Not Applicable