### Eco-Products "GeoCap"

Nichicon promotes environmentally conscious practices.

Nichicon offers "GeoCap", which has completely lead free terminals and contains no polyvinyl chloride in the sleeve.

#### Conductive Polymer Aluminum Solid Electrolytic Capacitors

Type · Classification	Type • Series	Lead-Free Compliance	Anti Polyvinyl Chloride Compliance	Page
Surface Mount type	PCF, PCJ, PCK*, PCG, PCS*, PCL, PCV, PCX*, PCR, PCM, PCH, PCZ	Complied	Complied	40 ~
Radial Lead type	PLF, PLE, PLG, PLS, PLV, PLX	Complied	Complied	WEB

### Conductive Polymer Aluminum Solid Electrolytic Capacitors(FPCAP)

Type · Classification	Type ⋅Series	Lead-Free Compliance	Anti Polyvinyl Chloride Compliance	Page
Surface Mount type	RPS, RPA, RHS, RHA, RSS, RSA, RSB, RFS, RFA, RSL $^{*}$			60 ~
Radial Lead type	RNS <sup>*</sup> , RR7 <sup>*</sup> , RR5 <sup>*</sup> , RL8, RE5 <sup>*</sup> , RS8, RF8 <sup>*</sup> , RNU, RNE, RNL, RS6, RHT	Complied	Complied	68 ~

#### Conductive Polymer Hybrid Aluminum Electrolytic Capacitors

Type · Classification	Type · Series	Lead-Free Compliance	Anti Polyvinyl Chloride Compliance	Page
Surface Mount type	GYA, GYB, GYC, GYD, GYE, GYF	Complied	Complied	86 ~

#### Aluminum Electrolytic Capacitors

Type · Classification		Type.Series	Lead-Free Compliance	Anti Polyvinyl Chloride Compliance	Page
Surface Mount type		UZG, UZT, UCW, UCD, UCL, UCM, UCV, UUD, UWD, UCJ, UCZ, UYA, UCH, UCX, UUJ, UUE, UBC, UBH			99 ~
		UZR, UZS, UWX, UWR, UWJ, UWP, UWT, UWZ, UWF, UWG, UUP, UUT, UUA, UUL, UCB, UUB, UWH, ULT, ULH, UUR, UUX, ULR, ULV, UUQ, UCQ, UUG, UUN			WEB
	Standard type	UVK*, UVR, UVC*, UVY, UVZ*, URS*, URZ, UVP*, UEP			142 ~
Radial Lead	High Reliability type	UPM*, UPW, UPA*, UHV, UHD*, UHE*, UHW, UPJ*, UPS, UPV*, UPT, UPZ, UPH, UCP, ULD, UCA*, UCS, UCY, UBT, UBW, UBY, UXY, UBX		Complied	160 ~
	For special Circuits	UKL*, UAQ*, UAS	Complied		219 ~
	For Audio Equipment	UKA, UKZ, UFG <sup>*</sup> , UKT <sup>*</sup> , UKW <sup>*</sup> , UFW <sup>*</sup> , UES <sup>*</sup> , UDB <sup>*</sup>			221 ~
	Standard type	LLS, LLG			226 ~
Snap-in Terminal type	High Reliability type	LGU, LGN, LGG, LGL, LGM, LGJ, LGJ (15), LGY, LGR, LGZ, LGX, LGC, LGW, LHT			234 ~
	For special circuits	LAK*, LAQ*, LAS*, LAR*, LQS	ſ		266 ~
Screw Terminnal type		LNR, LNX, LNK*, LNC, LQR*, LNY, LNT, LNU		Available upon request	268 ~
For Audio Equipment		LKG, LKS, LKX		Complied	WEB

Please refer to our website for the details of the series described as "WEB" or \* mark

# Corresponding to RoHS Directive

		Conductive Polymer Aluminum Solid Electrolytic Capacitors				Conductive Pol Solid Electrolytic	ymer Aluminum Capacitors(FPCAP)	Conductive Polymer Hybrid Aluminum Electrolytic Capacitors
		SMD type (PCV, PCX, PCR, PCM, PCH, PCZ)	Lead wire terminal type (PLV, PLX)	SMD type ( PCF, PCJ, PCK, PCG, PCS, PCL )	Lead wire terminal type (except PLV, PLX)	SMD type	Lead wire terminal type	SMD type
Correspondin	ng to RoHS Directive				Compliant to t	he RoHS directive (2011/65/EU,(I	EU)2015/863).	
Material	The portion of the components	8						
	Plating on terminals	Sn pla	ating	Ag p	lating	Sn plating	Sn plating	Sn plating
	Insulating Sleeves		Does no	t contain		Does no	t contain	Does not contain
Lead (Pb)	Construction of Fe/Cu/Sn terminals		Fe/Cu/Ag or Cu/Ag		Cu/Sn	Cu/Sn or Fe/Cu/Sn	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	Please refer to page 19 for the recommendation reflow condition.
	Solderability Tensile strength	No significant solderability difference between Sn-Ag-Cu and Sn-Pb solder.			atween	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		Does not contain
Mercury								
Cadmium		Does not contain				Does not contain		Does not contain
PBB, PBDE DIBP, DBP, BBP, DEHP		2000 100 001101						
	ion for RoHS	Add "Pb free" marking on outer carton label			label	Add "Pb free" marking on outer carton label		Add "Pb free" marking on inner and outer carton label
MSL (IPC/JEDEC J-STD-020D) Not Applic		Not Applicable			Not Ap	olicable	Not Applicable	

		Aluminum Electrolytic Capacitors						
		SMD type	Lead wire terminal type	Snap-in terminal type	Screw terminal type			
Correspondin	g to RoHS Directive	Compliant to the RoHS directive (2011/65/EU, (EU)2015/863).						
Material	The portion of the components							
	Plating on terminals	(< or=Dia.10mm) Change plating from Sn-Pb toSn-Bi	Change plating f					
	Flating on terminals	(> or=Dia.12.5mm) Change plating from Sn-Pb to Sn	Change plating i	Al				
	Insulating Sleeves	No used	Replaced	with PET	—			
		Fe/Cu/Sn-1.5Bi ( <or=dia 10mm)<="" td=""><td>Fe/C</td><td>:u/Sn</td><td>AI</td></or=dia>	Fe/C	:u/Sn	AI			
Lead	Construction of	Fe/Cu/Sn (>or=Dia 12.5mm)	Cu/Sn (UKZ, UFG, UES, UDB)	Cu-Zn/Au (LKG type-III)	AI			
Lead (Pb)	terminals	Plating thickn Plating type n treatment afte	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		_					
Chromium (VI)	Plating material		Available (Chromium(VI)contained in the plating of fixtures)					
Mercury								
Cadmium		Does not contain						
PBB, PBDE								
DIBP, DBP, BBP, DEHP   Identification for RoHS   compliance parts		Part numbers are changed Add "Pb-free" marking on inner and outer carton label.	Part numbers are changed Add "RoHS" marking on outer carton label.					
MSL (IPC/JEDE	EC J-STD-020D)		Not Ap	plicable				

## Part Numbering for Pb-free Aluminum Electrolytic Capacitors

#### SMD type Lead wire terminal type Part Numbers for Pb-free SMD type capacitors represent as follows: Part Numbers for Pb-free type capacitors represent as follows: (1) When certain part numbers are changed because of (1) When certain part numbers are changed because of replacement with Pb-free plated terminals, their 11 digit replacement with Pb-free plated leadwire and PVC less, sleeves shows the distinction. the **11th digit** of the part number represents the distinction. (Example) (Example) 4567891011 U VZ 1A 331 M EH (Sn-Pb plated leadwire,PVC sleeve) (Sn-Pb plated terminals) ¥ ¥ 2 3 4 5 6 7 8 9 10 11 12 13 14 234567891011 (Pb-free plated leadwire. <u>U ZS 1C 100 M CL 1GB</u> (Pb-free plated terminals) U VZ 1A 331 M ED PET sleeve) type Rated Voltage Series Code Rated Capacitance Configration Rated Voltage Configration RoHS compliant Туре Rated Capacitance Capacitance Tolerance RoHS compliant Capacitance Tolerance TapingCode(Inclusive case diameter and packing spec) L will be put at 11 digit of numbering system D will be put at 11 digit of numbering system Exception : **%10th digit** of the part number also need to be \*Configuration code is subject to change by series of case diameter. changed for the following type series and case size. 8X6.2 case size of UWF, UUX and UUR : BR to CL \*UUE, UBC (Vibration Resistance) is only Pb-free and 11th digit the part number change to "S". \*UCD is only Pb-free. In case of \$12.5 or more: 11th digit the part number change to "J". Snap-in terminal type Screw terminal type (Example) (Example) 2 3 4 5 6 7 8 9 10 11 12 2345 678 9 10 11 12 (Sn-Pb plated terminals, Bracket, Screwbolt, Lock washer L GU 2D 681 M HL A L NX 2W 221 M SM G PVC sleeve and bottom plate) (Cr (VI) plating) ¥ ¥ ▼ 2 3 4 5 6 7 8 9 1011 12 4 5 6 7 8 9 10 (Pb-free plated terminals. 11 12 L GU 2D 681 M EL A PETsleeve and no Cr (III) plating L NX 2W 221 M SE G bottom plate) Case dia. co Type Rated Voltage ype Rated Voltage Case Configration Type Rated Voltage Case dia. code RoHS compliant Series Code Rated Capacitance Configration RoHS compliant Capacitance Tolerance Capacitance Tolerance E will be put at 10 digit of numbering system E will be put at 11 digit of numbering system

### Information about "China RoHS 2"

CONDUCTIVE POLYMER ALUMINUM SOLID ELECTROLYTIC CAPACITORS, CONDUCTIVE POLYMER HYBRID ALUMINUM ELECTROLYTIC CAPACITORS ALUMINUM ELECTROLYTIC CAPACITORS

		Hazardous Substances						
{e}	Туре	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (CrVI)	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)	
	P, R, G, U, L	0	0	0	0	0	0	
	This table is prepared in accordance with the provision of SJ/T 11364.							

C: the amount of the hazardous substance indicated inside the homogeneous materials used for this part is below the limit requirement of GB/T 26572

× : the amount of the hazardous substance indicated inside at least one of the homogeneous materials used for this part is above the limit requirement of GB/T 26572