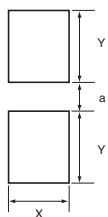


Surface Mount Type

■ Recommended Land Size

(mm)

● Chip type aluminum electrolytic capacitors
Standard type

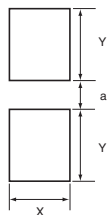


Size	X	Y	a
φ4	1.6	2.6	1.0
φ5	1.6	3.0	1.4
φ6.3	1.6	3.5	1.9
φ8×5.4L, φ8×6.2L	2.5	4.0	2.1
φ8×10L	2.5	3.5	3.0
φ10	2.5	4.0	4.0
φ12.5	2.0	7.3	3.0
φ16	2.0	7.9	5.3
φ18	2.0	8.9	5.3

● Conductive polymer aluminum solid electrolytic capacitors

Size	X	Y	a
φ5	1.6	3.0	1.4
φ6.3	1.6	3.5	2.1
φ8	2.0	3.5	3.0
φ10	2.0	4.0	4.0

● Conductive polymer aluminum solid electrolytic capacitors
(RPS, RPA, RHS, RHA, RSS, RSA, RSB, RFS, RFA, RSL, RDS, RKS)



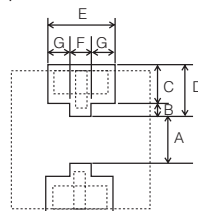
Size	X	Y	a
φ4	1.6	2.6	1.0
φ5	1.6	3.0	1.4
φ6.3	1.6	3.5	2.1
φ8	1.9	4.2	2.8
φ10	1.9	4.4	4.3

● Chip type aluminum electrolytic capacitors
Vibration Resistance Type
(UCD, UCM, UCZ, UCH, UCX, UUE, UBC, UBH)

① φ6.3 to 10

Size	X	Y	a
φ6.3×7.7L	3.0	4.0	1.6
φ6.3×10 L	3.0	4.0	1.6
φ8×10 L	4.3	5.3	2.0
φ10×10 L	4.3	5.6	3.3

② φ12.5 to 18



Size	A	B	C	D	E	F	G
φ12.5	3.0	2.3	5.0	7.3	7.0	2.0	2.5
φ16	5.3	2.9	5.0	7.9	7.0	2.0	2.5
φ18	5.3	3.1	5.8	8.9	11.0	2.0	4.5

● Conductive polymer aluminum solid electrolytic capacitors
Vibration Resistance Type
(PCX, PCR, PCM, PCH, PCZ)

Size	X	Y	a
φ6.3×8L	3.0	4.0	1.6
φ8×10.5L	4.3	5.3	2.0
φ10×10.5L	4.3	5.6	3.3
φ10×13.2L	4.3	5.6	3.3

● Conductive polymer hybrid aluminum electrolytic capacitors
(GYA, GYB, GYC, GYD, GYE, GYF)

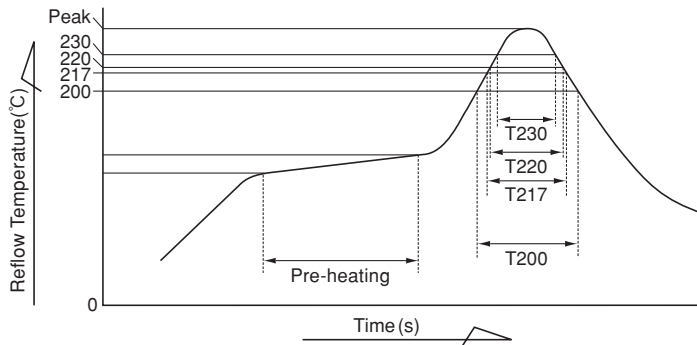
Size	X	Y	a
φ6.3	1.6	3.5	1.9
φ8	2.5	3.5	3.0
φ10	2.5	4.0	4.0

● Conductive polymer hybrid aluminum electrolytic capacitors
Vibration Resistance Type

Size	X	Y	a
φ6.3×7.7L	3.0	4.0	1.6
φ8×10 L	4.3	5.3	2.0
φ10	4.3	5.6	3.3

〈 Chip Type 〉

■ Recommended conditions of Soldering by Reflow



T200 : Duration for over +200°C at capacitor surface.

T217 : Duration for over +217°C at capacitor surface.

T220 : Duration for over +220°C at capacitor surface.

T230 : Duration for over +230°C at capacitor surface.

The temperature measuring point is at the case top.

Please contact us if capacitors are subject to the conditions other than the allowable range of reflow.

No.	Type · Series	Size	Pre-heating	Peak temperature	Duration over 230°C	Duration over 220°C	Duration over 217°C	Duration over 200°C	Reflow cycle
1	Chip Type Conductive Polymer Aluminum Solid Electrolytic Capacitors	—	+150°C to 200°C from 60 to 180s	260°C Max.	within 60s	—	within 70s	—	1 cycle only (within 2 cycles ^{※5} for series ^{※4})
	(PCF, PCJ, PCK, PCG, PCS, PCL, PCW, PCV, PCX, PCR, PCM, PCH, PCZ)	—		250°C Max.	within 60s	—	within 70s	—	within 2 cycles ^{※5}
2	Conductive Polymer Hybrid Aluminum Electrolytic Capacitors	—		260°C Max.	within 40s	—	within 50s	—	1 cycle only
	(GYA, GYB, GYC, GYD, GYE, GYF)	—		250°C Max.	within 30s	—	within 40s	—	within 2 cycles ^{※5}
3	Chip Type Aluminum Electrolytic Capacitors (UZT, UWP ^{※1} , UWT ^{※1} , UWG, UUP, UUA, UUL, UCB, UCW, UCD ^{※2} , UCL, UCM ^{※2} , UCV, UUD, UUB ^{※3} , UCJ, UCZ ^{※2} , UCH, UCX ^{※2} , UUX ^{※3} , UUQ, UCQ, UUE ^{※2} , UBC ^{※2} , UBH)	~ φ10	+150°C to 180°C within 120s	250°C Max.	within 30s	—	within 40s	—	within 2 cycles ^{※5}
4	Chip Type Aluminum Electrolytic Capacitors (UWP, UWT)	φ8×5.4L		245°C Max.	—	within 30s	within 30s	—	within 2 cycles ^{※5}
5	Chip Type Aluminum Electrolytic Capacitors (UZG)	3.9L		240°C Max.	—	within 30s	within 30s	—	within 2 cycles ^{※5} (φ6.3: 1 cycle only)
6	Chip Type Aluminum Electrolytic Capacitors (UUX (160-400V), UUB (160-400V), ULT, ULH, ULR, ULV)	~ φ10		240°C Max.	—	within 30s	within 30s	—	within 2 cycles ^{※5}
7	Chip Type Aluminum Electrolytic Capacitors (UCD, UCM, UCZ, UYA, UCX, UUG, UUJ, UUN, UUE, UBC)	φ12.5 ~		240°C Max.	—	—	within 30s	within 60s	within 2 cycles ^{※5}
8	Chip Type Aluminum Electrolytic Capacitors ^{※6} (UWZ, UWD, UWH)	—		260°C Max.	within 60s	—	within 70s	—	within 2 cycles ^{※5} (φ8×6.2L and φ10×10L: 1 cycle only)

s=seconds

※1: For φ8×5.4L, please refer to the No.4.

※2: For φ12.5 or greater, please refer to the No.7.

※3: For 160~400V, please refer to the No.6.

※4: Including PCR, PCM, PCH and PCZ.

※5: Please make sure the parts have enough cooling down time between the first and second soldering process.

※6: For High Temp. Reflow.

ESR. Impedance Measuring Point

Radial lead type

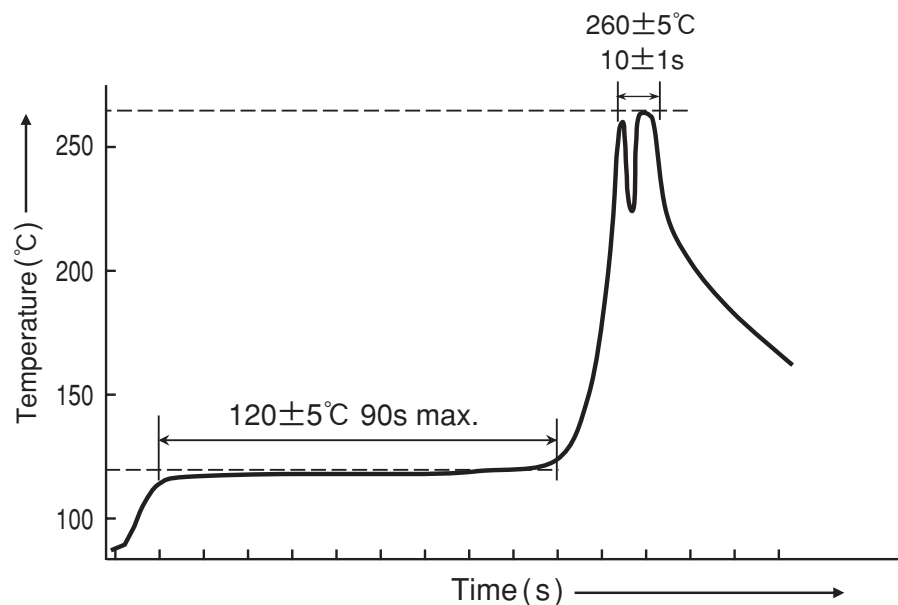
ESR should be measured at both of the terminal ends closest to the capacitor body.

Chip type

ESR should be measured at both of the terminal ends closest where the terminals protrude through the plastic platform.

Lead type aluminum electrolytic capacitors

Recommended conditions for flow soldering



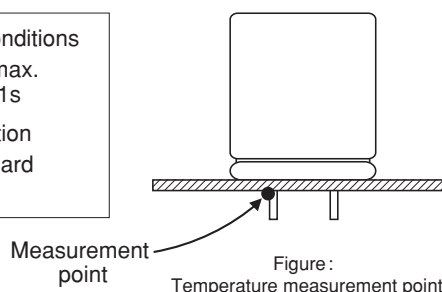
Recommended flow soldering conditions

Preheat : $120 \pm 5^\circ\text{C}$ 90s max.

Flow : $260 \pm 5^\circ\text{C}$ $10 \pm 1\text{s}$

Temperature measurement position

A lead on the back of the board
(See the figure on the right)

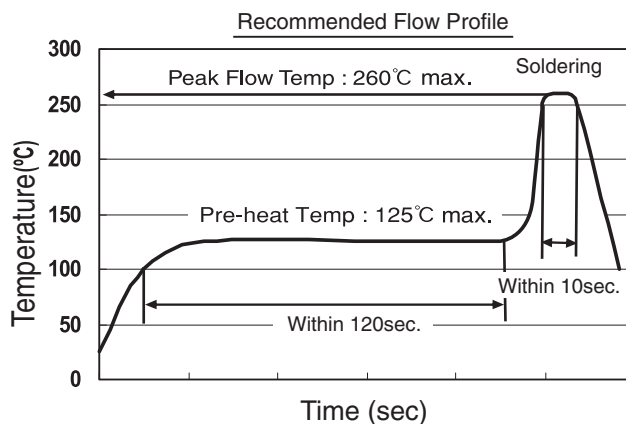
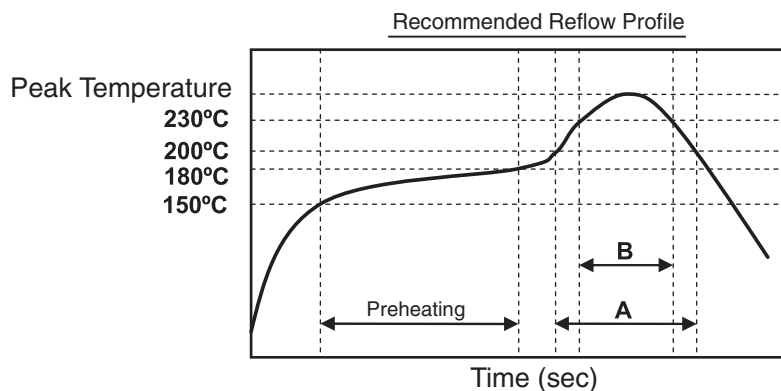


Recommended conditions for soldering irons

Temperature at the tip of the soldering iron. :

$350 \pm 10^\circ\text{C}$ $3 + 1 / - 0\text{s}$

※ Conductive polymer aluminum solid electrolytic capacitors are not covered so please inquire separately.

FPCAP Lead free and RoHS directive compliant soldering requirements**Flow Soldering(Radial Lead Type)***RNS, RR7, RR5, RL8, RE5, RS8, RF8, RNU, RNE, RNL, RS6, RHT***Reflow Soldering(SMD Type)***RPS, RPA, RHS, RHA, RSS, RSA, RSB, RFS, RFA, RSL, RDS, RKS*

Item	Recommended Condition 1	Recommended Condition 2	Recommended Condition 3
Series	RPS, RPA, RHS, RHA, RSS, RSA, RSB, RFS, RFA, RSL		RDS, RKS
Peak Temperature	260°C max.	250°C max.	260°C max.
Preheating	150°C to 180°C within 90 seconds	150°C to 180°C within 90 seconds	150°C to 180°C within 90 seconds
A	200°C and higher within 60 seconds	200°C and higher within 60 seconds	200°C and higher within 60 seconds
B	230°C and higher within 40 seconds	230°C and higher within 40 seconds	230°C and higher within 40 seconds
The Number of Reflow	Only 1 Time	Twice or less	Twice or less