

SUBJECT: V-HDseries Surface Mount Type Aluminum Electrolytic Capacitors  
EEV parts

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Details: V-HD series Non-RoHS Surface Mount Type Aluminum Electrolytic Capacitors are **NOT RECOMMENDED FOR NEW DESIGN**, in compliance with Restriction of Hazardous Substances (RoHS) directive.

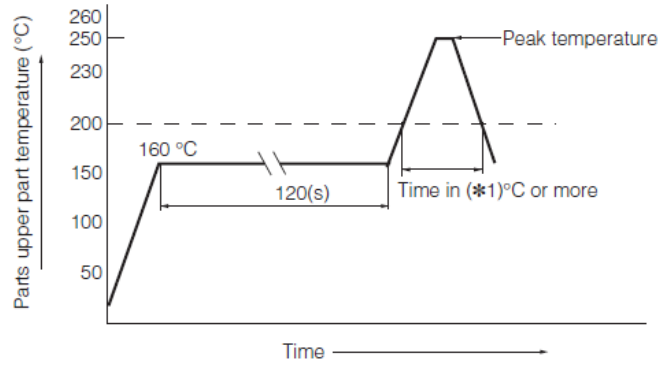
Please refer to the attached list of specific part numbers affected and their recommended replacements.

V-HD series (EEV-HD -> EEE-HD)

W.V. (V)	Cap (uF)	Case size	Part No.		Part No.		Part No.	
			RoHS: not compliant	Reflow	RoHS: compliant	Reflow	RoHS: compliant <i>high temp reflow (suffix - A)</i>	Reflow
6.3	330	F					EEE-HD0J331AP	7
6.3	1000	G					EEE-HD0J102AP	7
10	100	E	EEV-HD1A101P	13			EEE-HD1A101AP	7
10	220	F	EEV-HD1A221P	13			EEE-HD1A221AP	7
10	330	G	EEV-HD1A331P	13			EEE-HD1A331AP	7
16	10	B	EEV-HD1C100R	12			EEE-HD1C100AR	5
16	22	C	EEV-HD1C220R	12			EEE-HD1C220AR	5
16	47	D	EEV-HD1C470P	12			EEE-HD1C470AP	5
16	100	F	EEV-HD1C101P	13			EEE-HD1C101AP	7
16	220	G	EEV-HD1C221P	13			EEE-HD1C221AP	7
16	470	G					EEE-HD1C471AP	7
25	4.7	B	EEV-HD1E4R7R	12			EEE-HD1E4R7AR	5
25	10	C	EEV-HD1E100R	12			EEE-HD1E100AR	5
25	22	D	EEV-HD1E220P	12			EEE-HD1E220AP	5
25	33	D	EEV-HD1E330P	12			EEE-HD1E330AP	5
25	47	E	EEV-HD1E470P	13			EEE-HD1E470AP	7
25	100	F	EEV-HD1E101P	13			EEE-HD1E101AP	7
25	330	G	EEV-HD1E331P	13			EEE-HD1E331AP	7
35	4.7	B	EEV-HD1V4R7R	12			EEE-HD1V4R7AR	5
35	10	C	EEV-HD1V100R	12			EEE-HD1V100AR	5
35	22	D	EEV-HD1V220P	12			EEE-HD1V220AP	5
35	33	D8					EEE-HDV330XAP	5
35	33	E	EEV-HD1V330P	13			EEE-HD1V330AP	7
35	47	D8					EEE-HDV470XAP	5
35	47	F	EEV-HD1V470P	13			EEE-HD1V470AP	7
35	100	G	EEV-HD1V101P	13			EEE-HD1V101AP	7
35	220	G	EEV-HD1V221P	13			EEE-HD1V221AP	7
50	0.47	B	EEV-HD1HR47R	12	EEE-HD1HR47R	1		
50	1	B	EEV-HD1H1R0R	12	EEE-HD1H1R0R	1		
50	2.2	B	EEV-HD1H2R2R	12	EEE-HD1H2R2R	1		
50	3.3	B	EEV-HD1H3R3R	12	EEE-HD1H3R3R	1		
50	4.7	C	EEV-HD1H4R7R	12	EEE-HD1H4R7R	1		
50	10	D	EEV-HD1H100P	12	EEE-HD1H100P	1		
50	22	E	EEV-HD1H220P	13	EEE-HD1H220P	2		
50	33	F	EEV-HD1H330P	13	EEE-HD1H330P	2		
50	47	G	EEV-HD1H470P	13	EEE-HD1H470P	2		
50	100	G			EEE-HD1H101P	2		
63	10	E	EEV-HD1J100P	13	EEE-HD1J100P	2		
63	22	F	EEV-HD1J220P	13	EEE-HD1J220P	2		
63	33	G	EEV-HD1J330P	13	EEE-HD1J330P	2		
100	3.3	E	EEV-HD2A3R3P	13	EEE-HD2A3R3P	2		
100	4.7	F	EEV-HD2A4R7P	13	EEE-HD2A4R7P	2		
100	10	F	EEV-HD2A100P	13	EEE-HD2A100P	2		
100	22	G	EEV-HD2A220P	13	EEE-HD2A220P	2		

■ Reflow guaranteed condition

● RoHS compliant



Reflow condition

Reflow	Pre-fix	Suffix	Case Diameter	RoHS	Terminal Finish	Peak temp Deg C	Time of actual peak or near temp.		Time in (*1) degC or more	Time above 200degC	Reflow Freq
1	EEE-	R	3mm to 5mm	Yes	Sn-Bi	250degC	250degC	5 seconds	200degC	60 seconds	Once
1	EEE-	P	6.3mm	Yes	Sn-Bi	250degC	250degC	5 seconds	200degC	60 seconds	Once
2	EEE-	P	8mm to 10mm	Yes	Sn-Bi	235degC	235degC	5 seconds	200degC	60 seconds	Once
5	EEE-	AR	4mm to 5mm	Yes	Sn-Bi	260 degC	250degC	5 seconds	200degC	70 seconds	Twice
5	EEE-	AP	6.3mm	Yes	Sn-Bi	260 degC	250degC	5 seconds	200degC	70 seconds	Twice
7	EEE-	AP	8mm to 10mm	Yes	Sn-Bi	260 degC	250degC	5 seconds	200degC	70 seconds	Once
12	ECE-V	R	3mm to 5mm	No	Sn-Pb	240degC			200degC	20 seconds	Once
12	ECE-V	P	6.3mm	No	Sn-Pb	240degC			200degC	20 seconds	Once
12	EEV-	R	4mm to 5mm	No	Sn-Pb	240degC			200degC	20 seconds	Once
12	EEV-	P	6.3mm	No	Sn-Pb	240degC			200degC	20 seconds	Once
13	ECE-V	P	8mm to 10mm	No	Sn-Pb	230degC			200degC	20 seconds	Once
13	EEV-	P	8mm to 10mm	No	Sn-Pb	230degC			200degC	20 seconds	Once