

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

BULLETIN #: [NRFND.PG44.06.05.09-5](#)

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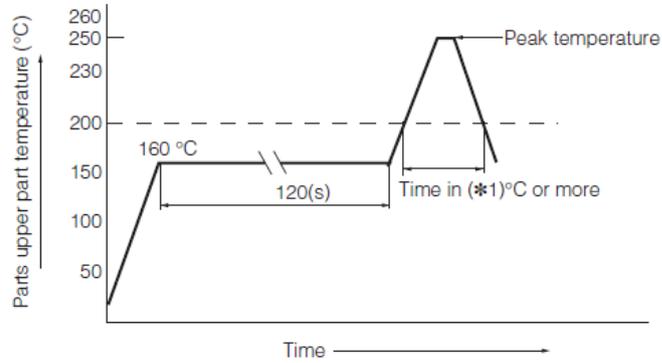
Details: V-FC series Non-RoHS Surface Mount Type Aluminum Electrolytic Capacitors are **NOT RECOMMENDED FOR NEW DESIGN**, in compliance with Restriction of Hazardous Substances (RoHS) directive.

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

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

W.V. (V)	Cap (uF)	Case size	Part No.	Reflow	Part No.	Reflow	Part No.	Reflow
			RoHS: not compliant		RoHS: compliant		RoHS: compliant <i>high temp reflow</i> <i>(suffix - A)</i>	
6.3	22	B	EEV-FC0J220R	12	EEE-FC0J220R	1	EEE-FC0J220AR	5
6.3	47	C	EEV-FC0J470R	12	EEE-FC0J470R	1	EEE-FC0J470AR	5
6.3	68	D	EEV-FC0J680P	12	EEE-FC0J680P	1	EEE-FC0J680AP	5
6.3	100	D	EEV-FC0J101P	12	EEE-FC0J101P	1	EEE-FC0J101AP	5
6.3	220	E	EEV-FC0J221P	13	EEE-FC0J221P	2	EEE-FC0J221AP	6
6.3	330	F	EEV-FC0J331P	13	EEE-FC0J331P	2	EEE-FC0J331AP	6
6.3	1000	G	EEV-FC0J102P	13	EEE-FC0J102P	2	EEE-FC0J102AP	6
6.3	1500	G	EEV-FC0J152P	13	EEE-FC0J152P	2	EEE-FC0J152AP	6
10	33	C	EEV-FC1A330R	12	EEE-FC1A330R	1	EEE-FC1A330AR	5
10	100	E	EEV-FC1A101P	13	EEE-FC1A101P	2	EEE-FC1A101AP	6
10	150	E	EEV-FC1A151P	13	EEE-FC1A151P	2	EEE-FC1A151AP	6
10	220	F	EEV-FC1A221P	13	EEE-FC1A221P	2	EEE-FC1A221AP	6
10	470	G	EEV-FC1A471P	13	EEE-FC1A471P	2	EEE-FC1A471AP	6
10	1000	G	EEV-FC1A102P	13	EEE-FC1A102P	2	EEE-FC1A102AP	6
16	10	B	EEV-FC1C100R	12	EEE-FC1C100R	1	EEE-FC1C100AR	5
16	22	C	EEV-FC1C220R	12	EEE-FC1C220R	1	EEE-FC1C220AR	5
16	47	D	EEV-FC1C470P	12	EEE-FC1C470P	1	EEE-FC1C470AP	5
16	68	E	EEV-FC1C680P	13	EEE-FC1C680P	2	EEE-FC1C680AP	6
16	100	E	EEV-FC1C101P	13	EEE-FC1C101P	2	EEE-FC1C101AP	6
16	220	G	EEV-FC1C221P	13	EEE-FC1C221P	2	EEE-FC1C221AP	6
16	330	G	EEV-FC1C331P	13	EEE-FC1C331P	2	EEE-FC1C331AP	6
16	470	G	EEV-FC1C471P	13	EEE-FC1C471P	2	EEE-FC1C471AP	6
16	680	G	EEV-FC1C681P	13	EEE-FC1C681P	2	EEE-FC1C681AP	6
25	6.8	B	EEV-FC1E6R8R	12	EEE-FC1E6R8R	1	EEE-FC1E6R8AR	5
25	22	D	EEV-FC1E220P	12	EEE-FC1E220P	1	EEE-FC1E220AP	5
25	33	D	EEV-FC1E330P	12	EEE-FC1E330P	1	EEE-FC1E330AP	5
25	47	E	EEV-FC1E470P	13	EEE-FC1E470P	2	EEE-FC1E470AP	6
25	68	F	EEV-FC1E680P	13	EEE-FC1E680P	2	EEE-FC1E680AP	6
25	100	F	EEV-FC1E101P	13	EEE-FC1E101P	2	EEE-FC1E101AP	6
25	220	G	EEV-FC1E221P	13	EEE-FC1E221P	2	EEE-FC1E221AP	6
25	330	G	EEV-FC1E331P	13	EEE-FC1E331P	2	EEE-FC1E331AP	6
25	470	G	EEV-FC1E471P	13	EEE-FC1E471P	2	EEE-FC1E471AP	6
35	1	B	EEV-FC1V1R0R	12	EEE-FC1V1R0R	1	EEE-FC1V1R0AR	5
35	2.2	B	EEV-FC1V2R2R	12	EEE-FC1V2R2R	1	EEE-FC1V2R2AR	5
35	3.3	B	EEV-FC1V3R3R	12	EEE-FC1V3R3R	1	EEE-FC1V3R3AR	5
35	4.7	B	EEV-FC1V4R7R	12	EEE-FC1V4R7R	1	EEE-FC1V4R7AR	5
35	6.8	C	EEV-FC1V6R8R	12	EEE-FC1V6R8R	1	EEE-FC1V6R8AR	5
35	10	C	EEV-FC1V100R	12	EEE-FC1V100R	1	EEE-FC1V100AR	5
35	22	D	EEV-FC1V220P	12	EEE-FC1V220P	1	EEE-FC1V220AP	5
35	33	E	EEV-FC1V330P	13	EEE-FC1V330P	2	EEE-FC1V330AP	6
35	47	E	EEV-FC1V470P	13	EEE-FC1V470P	2	EEE-FC1V470AP	6
35	100	G	EEV-FC1V101P	13	EEE-FC1V101P	2	EEE-FC1V101AP	6
35	220	G	EEV-FC1V221P	13	EEE-FC1V221P	2	EEE-FC1V221AP	6
35	330	G	EEV-FC1V331P	13	EEE-FC1V331P	2	EEE-FC1V331AP	6
50	1	B	EEV-FC1H1R0R	12	EEE-FC1H1R0R	1		
50	2.2	B	EEV-FC1H2R2R	12	EEE-FC1H2R2R	1		
50	3.3	B	EEV-FC1H3R3R	12	EEE-FC1H3R3R	1		
50	4.7	C	EEV-FC1H4R7R	12	EEE-FC1H4R7R	1		
50	10	D	EEV-FC1H100P	12	EEE-FC1H100P	1		
50	22	E	EEV-FC1H220P	13	EEE-FC1H220P	2		
50	33	F	EEV-FC1H330P	13	EEE-FC1H330P	2		
50	47	G	EEV-FC1H470P	13	EEE-FC1H470P	2		
50	100	G	EEV-FC1H101P	13	EEE-FC1H101P	2		
50	220	G	EEV-FC1H221P	13	EEE-FC1H221P	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
6	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

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