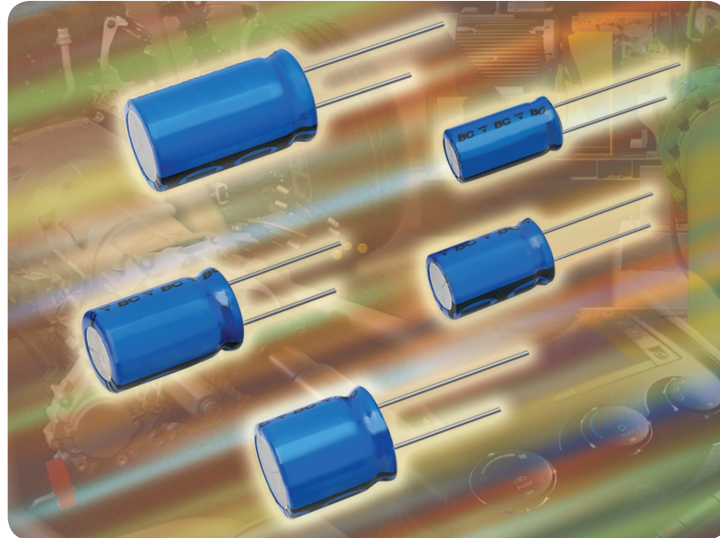


# ALUMINUM ELECTROLYTIC CAPACITORS

## 250 RMI-V

### 250 RMI-V Radial Aluminum Electrolytic Capacitors Low Impedance, High Vibration Capability



#### KEY BENEFITS

- Very long useful life: 7000 h to 10 000 h at 105 °C, high stability, high reliability
- Very low impedance down to 0.018  $\Omega$  (at 20 °C, 100 kHz)
- Excellent ripple current capability
- AEC-Q200-qualified
- Vibration proof up to 50 g

#### APPLICATIONS

##### Automotive:

- SMPS and control units
- ABS / ESP systems
- Electric brake (EPB)
- Power management and conversion

##### Industrial

- Measurement and automation
- Audio / video
- Telecommunications
- SMPS and DC/DC converters
- Lightning (LED drivers)

#### RESOURCES

- Datasheet: 250 RMI-V - [www.vishay.com/doc?28423](http://www.vishay.com/doc?28423)
- For technical questions contact [aluminumcaps1@vishay.com](mailto:aluminumcaps1@vishay.com)
- Material categorization: For definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)



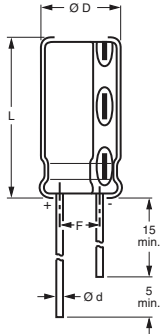
RoHS  
COMPLIANT

A WORLD OF  
SOLUTIONS

# ALUMINUM ELECTROLYTIC CAPACITORS

250 RMI-V

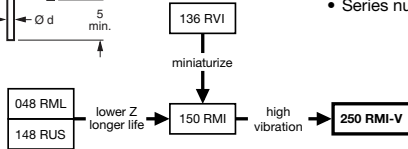
## Aluminum Electrolytic Capacitors Radial Miniature, Low Impedance, High Vibration Capability



### MARKING

The capacitors are marked (where possible) with the following information:

- Rated capacitance (in  $\mu\text{F}$ )
- Tolerance on rated capacitance, code letter in accordance with IEC 60062 (M for  $\pm 20\%$ )
- Rated voltage (in V)
- Date code, in accordance with IEC 60062
- Code indicating factory of origin
- Name of manufacturer
- Upper category temperature (105 °C)
- Negative terminal identification
- Series number (250)

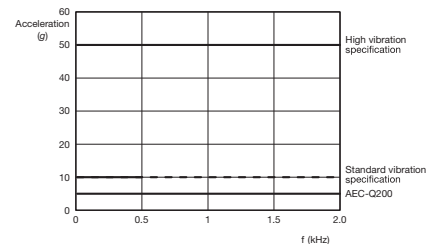


QUICK REFERENCE DATA	
DESCRIPTION	VALUE
Nominal case sizes ( $\text{Ø D} \times \text{L}$ in mm)	16 x 20 to 18 x 40
Rated capacitance range, $C_R$	330 $\mu\text{F}$ to 8200 $\mu\text{F}$
Tolerance on $C_R$	$\pm 20\%$
Rated voltage range, $U_R$	10 V to 100 V
Category temperature range	-55 °C to +105 °C
Endurance test at 105 °C	3000 h to 7000 h
Useful life at 105 °C	7000 h to 10 000 h
Useful life at 40 °C, $1.8 \times I_R$ applied	200 000 h to 500 000 h
Shelf life at 0 V, 105 °C	1000 h
Based on sectional specification	IEC 60384-4 / EN130300
Climatic category IEC 60068	55 / 105 / 56

SELECTION CHART FOR $C_R$ , $U_R$ , AND RELEVANT NOMINAL CASE SIZES ( $\text{Ø D} \times \text{L}$ in mm)							
$C_R$ ( $\mu\text{F}$ )	$U_R$ (V)						
	10	16	25	35	50	63	100
330	-	-	-	-	-	-	18 x 20
470	-	-	-	-	-	16 x 20	-
680	-	-	-	-	-	16 x 20	-
	-	-	-	-	-	16 x 25	-
1000	-	-	-	-	16 x 25	16 x 31	-
	-	-	-	16 x 20	-	-	-
1200	-	-	-	-	16 x 31	-	-
1500	-	-	-	16 x 20	16 x 31	-	-
2200	-	-	16 x 20	16 x 31	-	18 x 40	-
3300	-	16 x 20	16 x 31	18 x 31	18 x 40	-	-
4700	16 x 25	16 x 31	16 x 35	18 x 40	-	-	-
6800	16 x 31	16 x 35	18 x 40	-	-	-	-
8200	-	18 x 40	-	-	-	-	-

ENDURANCE TEST DURATION AND USEFUL LIFE AS A FUNCTION OF CASE SIZE			
NOMINAL CASE SIZE $\text{Ø D} \times \text{L}$ (mm)	CASE CODE	ENDURANCE AT 105 °C (h)	USEFUL LIFE AT 105 °C (h)
16 x 20	19a	3000	7000
16 x 25	19	5000	10 000
16 x 31	20	5000	10 000
16 x 35	21	5000	10 000
18 x 20	1820	3000	7000
18 x 31	1831	6000	10 000
18 x 40	1840	8000	10 000

EXTENDED VIBRATION SPECIFICATIONS		
PARAMETER	PROCEDURE	REQUIREMENTS
Vibration specifications	From 10 g to 50 g	No visible damage; no leakage of electrolyte; marking legible $\Delta C/C: \pm 5\%$ with respect to initial measurements
Vibration frequency range	10 Hz to 2 kHz	
Vibration profile	<ul style="list-style-type: none"> <li>• Constant sinus sweep</li> <li>• 3 directions</li> <li>• 8 h per direction</li> </ul>	



Revision 05-Nov-15